

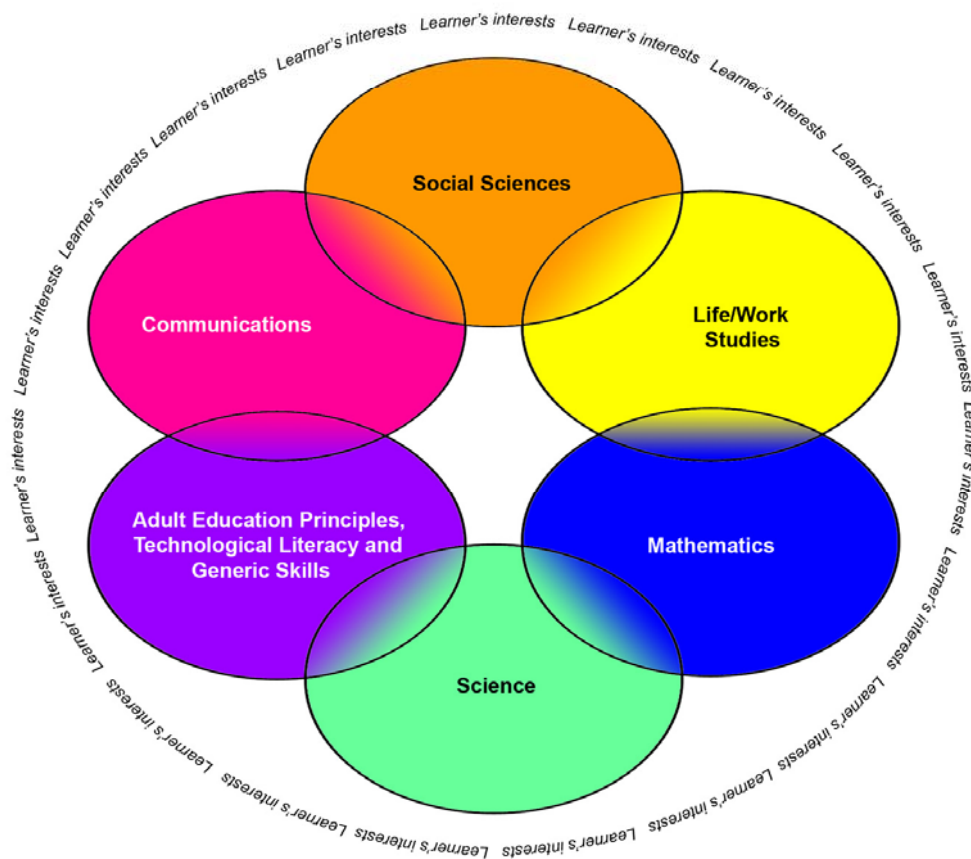


Saskatchewan
Ministry of
Advanced Education,
Employment and
Immigration



Adult Basic Education Level 3 (Adult 10)

Integration Guide for Instructors



Revised September 2010

Acknowledgements

The Ministry of Advanced Education, Employment and Immigration gratefully acknowledges the advice and contributions of everyone contributed ideas, reviewed, and provided feedback for this guide. In particular, the efforts of the following people are acknowledged:

Integration Guide Writers	Michelle Clarke, B.Ed., M.Ed., Parkland Regional College Joanne Mortensen, B.Ed., Saskatchewan Indian Institute of Technologies
Integration Guide Consultation Committee and Contributors	Sandy Anderson, SIAST (Woodland Campus) Elizabeth Conner, Saskatchewan Indian Institute of Technologies Janice DePeel, Dumont Technical Institute Anna Fish, Southeast Regional College Sue Gardiner, SIAST (Palliser Campus) Ron Golden, SIAST (Kelsey Campus) Bryan Guiboche, Dumont Technical Institute Michelle Hopper, Saskatchewan Indian Institute of Technologies Larry Hrycan, Carlton Trail Regional College Joanne Johnston, SIAST (Woodland Campus) Tracy LaPrise, Dumont Technical Institute Elizabeth Majocha, Dumont Technical Institute Lynn McCaig, SIAST (Palliser Campus) Gord Mueller, SIAST (Palliser Campus) Carole Olson, Southeast Regional College Betty Ribling, Southeast Regional College Brad Rose, Parkland Regional College Arlene Sanderson, North West Regional College Brandi Trew, Cumberland Regional College
Ministry of Advanced Education, Employment and Immigration Support Team	Pat Duggleby, Manager, ABE Programs Alex Lei, ABE Website Developer Jeri Marchinko, Manager, ABE Redesign Jim Seiferling, Director, Special Needs Programs

Introduction

Background

In 1999, Saskatchewan Post-Secondary Education and Skills Training (now the Ministry of Advanced Education, Employment and Immigration) conducted an evaluation of Adult Basic Education (ABE) in Saskatchewan. The Basic Education Program Review (1999) suggested the need for change in the way Adult Basic Education is delivered in Saskatchewan. The three primary recommendations of the review were to:

1. Increase Adult Basic Education's connections to employment;
2. Increase the retention and success of Aboriginal learners; and
3. Develop curriculum in the Adult Basic Education Level Three (Adult 10) program.

The Ministry responded by hiring a Project Manager and forming a Basic Education Redesign Task Team in March 2001 to oversee the implementation of the recommendations of the ABE evaluation, including:

1. The development of a definition of framework for basic education in Saskatchewan;
2. The articulation and development of an integrated vision for basic education;
3. The development of goals and objectives for basic education;
4. The articulation, development, and implementation of curricula for adult learners; and
5. The development of a sustainable renewal and evaluation strategy for the new curricula.

The work of the ABE Redesign Task Team has resulted in a provincial system of adult basic education in which learners are encouraged to develop the knowledge, skills, abilities, and attitudes necessary to become fully engaged in family and community life, as well as in further academic or skills training. There are four ABE levels in Saskatchewan: Levels One and Two (literacy levels), Level Three (Adult 10), and Level Four (Adult Secondary Completion).

The reasons adults return to school are varied, but generally include obtaining academic certification for further training, increasing their employability, and for personal satisfaction. But there had been a disconnect in what adult learners wanted and needed and how programs for adults were delivered. Nationally and internationally, adult basic education programs are now placing more emphasis on inclusive, holistic, and participatory approaches, and on reducing the alienation that some learners feel between what happens in the classroom and "real life." These approaches reflect understandings from Aboriginal, transactional, and transformative perspectives. Areas such as cultural awareness, cognitive strategies, and anti-racist education are now an inherent part of academic credit programs.

It is no longer viable or acceptable to teach “just the basic skills” or “only” course content. Adults require complex skills in working with others, in problem-solving, and in accessing, processing, and managing information so they can participate in a knowledge-based economy. Demands have increased for higher-level skills, such as evaluation and analysis. Knowing how to learn is necessary for participation in a variety of settings and a prerequisite skill for learning throughout one’s life.

Adults learn best when the context of the learning is relevant to their lives so it is vital that learners are involved in planning their own learning. Education is not something that is done to people: it is a response to the learner’s need to know for personal development, for family reasons, for participation in the community, or for further education or skills training.

The Ministry of Advanced Education, Employment and Labour has direct responsibility for Level Three credit programs, and has published and implemented curriculum guides for each of the five required courses: Communications (2004), Social Sciences (2005), Life/Work Studies (2006), Mathematics (2006), and Science (2007).

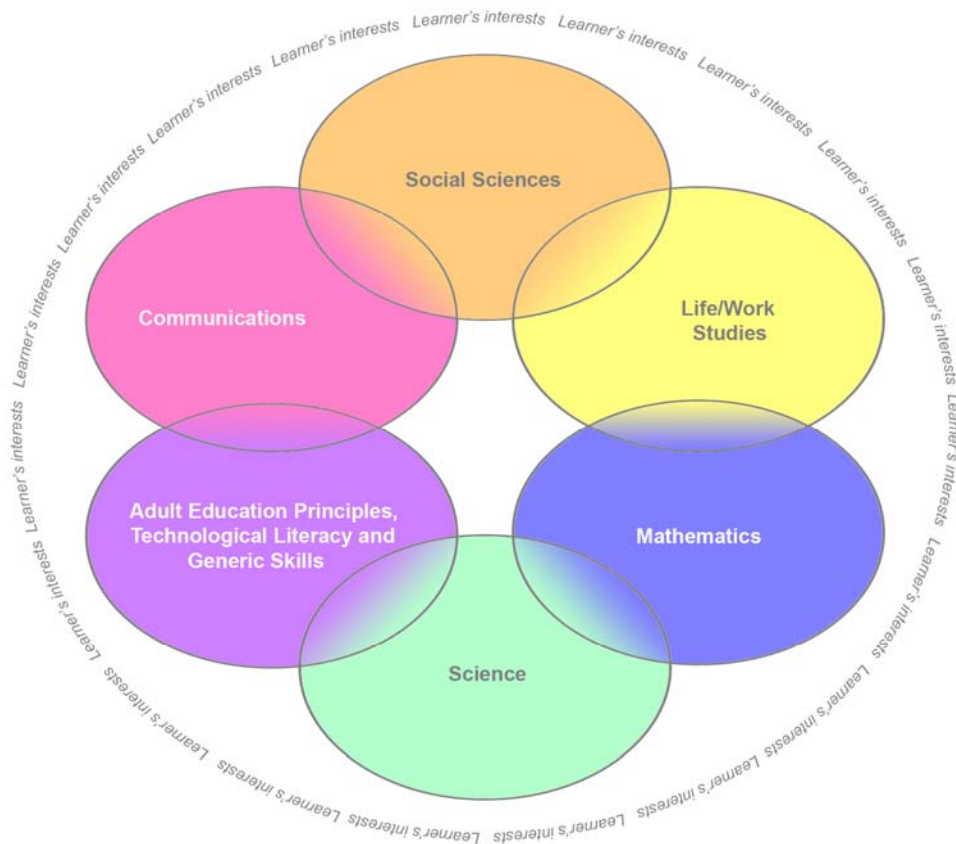
With the new curricula at Level Three, Adult Basic Education is accessible, responsive, and supportive of adult learners. Integrated approaches and partnerships are used to address learner needs. The new guides will enhance teaching/learning experiences of instructors and learners; the *Adult Basic Education Level Three Integration Guide for Instructors* will assist instructors in integrating the learning contained in the five guides.

This *Integration Guide* is intended to be used in adult learning environments. Instructors are encouraged to build on the effective teaching methodologies and strategies they already use and work towards holistic, learner-centred instruction.

Goal of the ABE Level Three Integration Guide

The goal of this document is to present instructors with a tool that will help them work with learners to develop integrated themes, units, lessons, and activities that use learning outcomes from several different subjects simultaneously.

Instructors can examine the curriculum guides and map where learning outcomes in different subject areas overlap and, with the learners, plan learning activities that are holistic, contextualized, and integrated, and which acknowledge the learner's interests, knowledge, and career goals.



Overview of the Document

This Integration Guide presents the following information for instructors:

- Part One: An exploration and review of the literature about integration, including:
 - The importance of integration in adult learning;
 - The nature of integration; and
 - The benefits of integration for both learner and instructor.
- Part Two: An examination of the various definitions of integration and integration related terms;
- Part Three: An overview of the many ways integration can be used with adult learners;
- Part Four: Examples of instructor-designed integration themes, units, lessons and activities, which can be adapted to address learners' interests, knowledge, and goals;
- Part Five: Planners to help instructors and learners design integration activities, lessons, units, and themes; and
- Part Six: An annotated bibliography listing resources instructors can use to continue to develop integrative practices.

Table of Contents

Acknowledgements	i
Introduction	iii
Background	iii
Goals of the ABE Level Three Integration Guide	v
Overview of the Document	vi
 PART ONE: INTEGRATION THEORY AND PRACTICE	 1
Chapter 1: The Theory of Integration	1
What Does Integration Mean?	1
The Benefits of Integration	3
Why is Integration Important.....	10
Chapter 2: Levels of Integration	13
Levels of Integration: Summary Chart	23
 PART TWO: PUTTING THEORY INTO PRACTICE	 25
Chapter 3: Embedding Integrative Practices	25
Introduction	25
Where Do I begin?	25
Steps to Integration: Summary Chart	30
Chapter 4: Program Considerations	31
Things to Consider	31
Program Considerations: Summary Chart	34
A Word About Resources	35
 PART THREE: ASSESSMENT AND EVALUATION	 37
Chapter 5: About Assessment and Evaluation.....	37
Distinguishing Between Assessment and Evaluation	37
Assessment.....	37
Evaluation Schemes	38

Authentic Assessment	39
Designing Assessment Tasks and Tools	40
Assessment Tools and Samples	41
Rubrics	41
Rating Scales	44
Logs.....	48
Checklists	49
Learner Self-Assessment	50
Journaling	51
Portfolios.....	54
Projects.....	55
Glossary	57
References (Parts One, Two, and Three)	59
 Appendix A:	 63
Technological Literacy: Computer Skills and Knowledge Checklist	65
 Appendix B:	 73
Introduction.....	75
Connected Planner – Energy Use	77
Nested Planner – Making Healthy Food Choices	89
Sequenced Planner – Addictive Behaviours.....	101
Shared Planner – Diabetes and Nutrition	107
Webbed Planner – Gangs	119
Threaded Planner – Balance and Change	123
Threaded Planner – Aboriginal Culture	126
Integrated Planner – Involuntary Migration/Displacement	131
Integrated Planner – Communications Focus: Leadership	145
Immersed Planner – Diving	149
 Annotated Bibliography	 157

Part One: Integration Theory and Practice

Chapter 1: The Theory of Integration**What Does “Integration” Mean?**

The idea of integration itself is not new or unique. Integrative practices have always been a crucial component of the educational and learning culture. Ask teachers who taught in one-room schoolhouses to a heterogeneous mix of pupils, all of whom came with various levels of literacy, abilities, and who were at various ages, about the importance of integration. The answer would likely be that they did not know how to teach any other way and that it would have been impossible for them to try. Instructors and learners today face similar challenges, particularly in ABE classrooms. The learners in most ABE classrooms are of varying educational and life histories, and come with a variety of abilities and knowledge. Integrative practices offer learners and instructors the means of facilitating learning that is meaningful and relevant.

Educators first started experimenting with integrating curriculum during the progressive movement founded by John Dewey and Francis Parker in the 1890s (Hinde, 2005). Contemporary educational research continues to explore the multifaceted topic of curricular integration and there is no shortage of experts in this particular field.

Curriculum integration can be described as an approach to teaching and learning that is based on both philosophy and practicality. It can generally be defined as a curriculum approach that purposefully draws together knowledge, skills, attitudes and values from within or across subject areas to develop a more powerful understanding of key ideas. Curriculum integration occurs when components of the curriculum are connected and related in meaningful ways by both the students and teachers. (Alberta Education, 2007, p. 2)

Throughout the literature on integration, there is ongoing debate about what constitutes integration and the best way to define it. Some researchers have advocated for the adoption of a universal definition of integration (Venville, Wallace, Rennie, and Malone, 2001), but to date no single definition exists. Part of the problem researchers have had with defining integration stems from practitioners using a number of terms interchangeably. For example, the terms interdisciplinary, multidisciplinary, transdisciplinary, thematic, and integrated are often used synonymously (Lederman & Niess, 1997). To have a thorough understanding of the meaning of integration, it is necessary to examine the meanings of these related terms. There are a number of useful definitions available and because an examination of these varied definitions could prove useful for instructors, several definitions are offered here.

Ledermann and Niess (1997) define *integration* as a blending of subjects to the point where the separate parts of each are indistinguishable from one another. Jacobs (1989) defines *interdisciplinary* as “a knowledge view and curriculum approach that consciously applies methodology and language from more than one discipline to examine a central theme, issue, problem, topic, or experience” (p. 8) while Ledermann and Niess (1997) define *thematic* as a unifying topic that is used to transcend subject boundaries. All of these definitions are valuable for the purposes of understanding integration. The form of integration chosen by an instructor will depend upon his comprehension of the concept and the purpose for which integration is being undertaken. One of the most useful definitions for the purposes of this document comes from Beane (1996), who describes integrated curricula as having four characteristics:

1. It is organized around problems and topics that are of individual and social significance in the real world;
2. It uses relevant information in the context of the topic without regard for subject divisions;
3. It creates/promotes knowledge that is used to study an existing problem rather than memorizing information for a test or grade level outcome; and
4. It emphasizes projects and activities with real application of knowledge and problem solving.

Another challenge for defining integration stems from the multiple and varied ways integration is practiced. Venville and Dawson (2004) suggest it is not easy to define integration because of the diversity of approaches utilized, but suggest that the key features of an integrated curriculum include:

1. Comprehensive investigations that draw on numerous discipline areas;
2. Flexible and adaptable timetable schedules;
3. Team teaching;
4. Learner-centered learning; and
5. High levels of interaction among learners, between learners and instructors, and among instructors from multiple, varied discipline areas.

Regardless of the definition used to define integration, its fundamental goal is for the instructor to work with learners to develop their knowledge, skills, attitudes, and abilities holistically and authentically. Venville, Wallace, Rennie, and Malone (2001) state: “We propose that curriculum integration be incorporated within what we are calling a worldly perspective that reflects a holistic view of knowledge. This perspective

represents pupils' knowledge grounded in their experiences, relationships and contexts" (p. 19). This statement confirms their belief that learning should start from where the learners are. Questions such as "What do the learners already know?"; "What experiences have they had with the concepts being taught?"; and "How can related concepts be contextualized?" are important for instructors to ask themselves as they collaborate with the learners on the development of learning activities.

One of the goals of integration is to help learners see the interconnectedness of the world around them so the question "Why do I have to learn this?" needs not be asked. By engaging in integrative practices, connections between concepts are distinct and explicit, and not unstated, unformulated, or implied. Learners who experience and understand this interconnectedness become self-directed, life-long learners:

It is important for educators to work together to build knowledge about integrative learning in its many varieties, and about how it is best encouraged and assessed. Developing students' capacities for integrative learning is central to personal success, social responsibility, and civic engagement in today's global society. Students face a rapidly-changing and ever-more-interconnected world, in which integrative learning becomes not just a benefit, but a necessity. (Rover, 2007, p. 276)

The Benefits of Integration

The benefits of integration are numerous, both for the instructor and learners. Integration allows for "real-life" learning, that is, what is learned is directly applicable to the lives of learners.

The following section summarizes the benefits of integration: each is explained in more detail in the following pages. More information about the nature of integration can be found in Part Two of this guide (p. 25).

Summary of Benefits

1. Integration is closely correlated and connected to the philosophical beliefs that underlie the foundational principles of adult learning.
2. Integration is a learner-centered method of instruction, where the relevance of discipline-specific learning objectives is connected to areas of intrinsic interest and motivation to adult learners. Learners are directly responsible for, and engaged in, their own learning in integrative settings.
3. Learners visualize and understand the interconnectedness of learning and gain vital life, communication and social skills in an integrated classroom.

4. Integration enhances and reinforces constructivist traditions of knowledge building.
5. Assessment of integrated activities is authentic, continuous, and related directly to learning.
6. Integration can ultimately save instructors time in the classroom by addressing numerous learning objectives from a variety of disciplines simultaneously.

While this list of benefits is not exhaustive, those listed here are the most thoroughly documented and supported by research literature. A more detailed explanation of each of these benefits follows.

Benefit One:

Integration Corresponds with Foundational Adult Learning Principles

One of the biggest advantages of integrative practices is that they correlate to the foundational adult learning principles embedded in all five Level Three curriculum guides:

- Involving learners in planning and implementing learning activities;
- Drawing upon learners' experiences as a resource;
- Cultivating self-direction in learners;
- Creating a climate that encourages and supports learning;
- Fostering a spirit of collaboration in the learning setting; and
- Using small groups.

Integrative practices mandate the utilization of these principles in adult learning situations, and are emphasized throughout the curriculum guides. For example, in the Communications Level Three Curriculum Guide, Chapter Five: Integrated Theme-Based Instruction summarizes the rationale underlying integrative practices (p. 91).

An approach to instruction that is consistent with the foundation of this curriculum is one that will:

- Make subject-area content contextually relevant to adult learners;
- Treat adult learners with respect by acknowledging that all learners come to class with a wealth of prior knowledge and experience;
- Create space for the instructor and learners to build a relationship of trust in a safe environment in order to become active and creative co-learners;
- Provide opportunities for cooperative learning activities that promote peer respect, interaction, and collaboration;
- Integrate language learning and subject-area content from across curricula, so that learners see relationships between ideas and concepts;
- Engage and support learners as they demystify institutional, systemic, and other structures that have contributed to their social positioning (i.e. racism, sexism, classism, colonialism, and other "isms");

- Allow learners to articulate and confront insecurities about their learning and their lives by encouraging critically reflective experiences and learning activities;
- Provide learners with a different approach to learning from which they associate previous unsuccessful school experiences; and
- Involve learners in self-assessment of demonstrated skills in a variety of real-life situations.

Educational experiences that are authentic, contextually based, and relevant to the lives of learners are the types of experiences learners remember once they are beyond the classroom walls. Very few people will remember memorized and irrelevant facts, while experiences rich in meaning and connected in multiple ways with lessons from other disciplines have the potential to motivate and inspire learners.

Benefit Two: Integration is Learner-Centered

Integration provides myriad opportunities for learners to engage in educational opportunities that respond to their interests, knowledge, and goals as well as curricular requirements. Integration encourages previous experiences to be acknowledged, validated, and incorporated into relevant learning activities. Brown (2006) points out that integrative practices allow learners to be involved directly in the development of course work, and that this practice has significant benefits for learners and society alike:

Curriculum integration provides daily opportunities for students to use thought processes as they plan, do research, and report on what they learn. Students engaged in curriculum integration think critically and creatively in evaluating sources of information, in choosing how to present research, and in evaluating their peers' and their own presentations. They participate in daily research processes to find information and design appropriate experiments to test their own hypotheses. And they solve problems ranging from determining how to present information to figuring out how to compromise with other team members. Students who participate in curriculum integration work out their differences of opinion, choose research partners, learn how to negotiate, and practice reaching consensus – all vital social skills required in adult life. Curriculum integration teachers – more accurately called facilitators – don't worry about whether students are motivated by the curriculum. The motivation comes automatically with having chosen the questions. Classroom management problems seldom arise, perhaps primarily because of the high levels of engagement and motivation of students studying something of their own choosing. (p. 783-784)

Brown clearly believes that learners who are participating in the design of their own educational experiences become prepared to live as contributing members of society. People who have learned how to negotiate and how to work effectively and empathetically with others are learning more than mere content. By developing their

own integration activities, learners are motivated and engaged in their learning. Learners who develop their own inquiry questions experience greater fulfillment, motivation, and better retention and recall of the knowledge learned. There is evidence to suggest that learner success is increased because of their inclusion in the planning and design of their learning activities:

There was considerable research in the 1960s and 1970s to support the notion that involving the adult student in the program-planning process is beneficial in terms of success. For example, in one study adults who participated in the establishment of course objectives were found to have more positive attitudes toward the learning experience after its completion than did those who had not helped to establish the objectives. Related research has shown that when students can examine the learning expectations ahead of the actual experiences in realistic, believable behavior, usually in terms of behavioral objectives, the learning was enhanced. (Hiemstra, 2002, Chapter 7, ¶ 51)

Integration is one way learners can become active developers of their educational experiences. As Heimstra points out, learners who are involved in shaping their learning interactions experience more success and satisfaction than those who do not. Learners who experience more satisfaction and enjoyment in learning are more likely to seek out educational opportunities in the future and, thus, are more likely to emerge as lifelong learners.

Benefit Three: Integrative Practices Support Constructivist Principles

The philosophies fundamental to constructivism are connected directly to the foundational principles of adult learning. Instructors who use integrative practices are enhancing constructivist practices as well as demonstrating and implementing adult learning principles. Instructors who practise integrative strategies are more likely to view knowledge as being constructively created (Tchudi & Lafer, 1996). In adult education, constructivism is a more effective method of teaching and learning than traditional teacher-directed methods:

Constructivism is *holistic* in its approach, meaning that it declines to break learning down into component elements, but recognizes that the elements are learned when they serve the function of solving a problem or creating a complete meaning. Above all, constructivism is linked inextricably to *authenticity* in learning – suggesting that for people to learn successfully, they must generally be engaged in tasks that they find useful, intrinsically interesting, or otherwise realistic. (Tchudi & Lafer, 1996, p. 90)

It is evident that the goals of constructivism and the goals of integration are closely related. Integration seeks to construct connections between discrete disciplines as it blurs the artificial divisions between subject areas. Constructivist views about the nature of knowledge acquisition reinforce this philosophical point of view.

The constructivist perspective we have come to adopt causes us to understand that knowledge, no matter how common, is never understood by all in completely the same way, that different people looking at the same objects or events inevitably will see things differently. And cognizance of this difference in the way things are seen is an essential element of critical thinking – an understanding of the possibility of multiple perspectives that can change the meaning of the phenomenon being considered. Vygotsky (1989, as cited in Tchudi & Lafer, 1996) makes the point that the ability to wrestle internally with multiple perspectives *is* the engine of critical thought. Further, Vygotsky tells us that the critical mechanism results from interaction with those who do not think as we do, who place their *constructions* in contention with our own. The external manifestation of critical thinking is *dialectic*, and dialectic is dependent on the existence of *knowledges* rather than commonly held knowledge. (Tchudi & Lafer, 1996, p. 211)

Constructivism and integration are both concerned with the promotion and development of critical thinking skills – an intrinsic part of Level Three curricula. Discipline-centered education that is primarily concerned with content teaching looks quite different from educational practices aimed at promoting the development of sound decision-making skills (Tchudi & Lafer, 1996). Everyone who is engaged in learning brings a different perspective to bear on the subject being studied. Integration and constructivism have much in common, as both seek to expand the learner's base of knowledge through an examination of the various ways in which knowledge in one area is connected to knowledge in another.

Benefit Four:**Learners Visualize Connections and Gain Vital Life, Social and Communications Skills**

By contextualizing curriculum learning outcomes and drawing connections between them, instructors are facilitating the transfer of knowledge, skills, and attitudes to other areas of learners' lives. Learners are able to see the relevance of what they are learning in their classroom to their daily lives:

It is taken for granted, apparently, that in time students will see for themselves how things fit together. Unfortunately, the reality of the situation is that they tend to learn what we teach. If we teach connectedness and integration, they learn that. If we teach separation and discontinuity, that is what they learn. To suppose otherwise would be incongruous. (Humphreys, 1981, p. xi)

Important social and communication skills are reinforced continuously in integrated classrooms. Learners necessarily have to negotiate the meaning of concepts and the structure of learning activities and projects with one another and with the instructor. Doing so gives the learner practice at these skills, which are widely recognized as valuable workplace skills. Participation in an integrated classroom also connects learners to the processes underlying the political structures of contemporary society: "... participation ... in curriculum planning follows from the democratic concept of participatory, collaborative governance and decision making. The inclusion of personal issues alongside social problems follows from the democratic possibility of integrating self and social interest" (Beane, 1997, p. 6).

Benefit Five: Assessment is Authentic and Continuous

Another benefit of integrative teaching is its relationship to authentic, contextual, and relevant assessment practices:

Authentic assessment moves beyond learning by rote and memorization of traditional methods and allows students to construct responses. Authentic assessment captures aspects of students' knowledge, deep understanding, problem-solving skills, social skills, and attitudes that are used in a real-world, or simulation of a real-world situation. Authentic assessments set meaningful and engaging tasks, in a rich context, where the learner applies knowledge and skills, and performs the task in a new situation. Authentic tasks help students rehearse for the complex ambiguities of adult and professional life. (Aitken & Pungur, 2005, p. 1)

With an holistic approach to assessment, learners demonstrate their knowledge in ways that are directly related and meaningfully connected to the ways in which the knowledge was gained. Curricular integration and authentic assessment reinforce each other.

**Benefit Six:
Integrative Practices Save Time**

Integrative practices have the potential to ease the workloads of learners and instructors. By addressing several learning outcomes from multiple subject areas simultaneously, duplication of teaching and assessment can be avoided.

Some subject areas may get short shrift due to time constraints. Hinde (2005) notes that some content areas are neglected because of an institutional focus on, and valuation of, reading, writing, and mathematics. Allemann and Brophy (1993) agree:

Curriculum integration is one of those ideas that is obviously good. Articles and in-service speakers extol its potential for enhancing the meaning of what is taught, saving teachers time by reducing the need to make as many preparations, reducing the need to rush to try to get everything covered, and making it possible to teach knowledge and skills simultaneously. ... In general, integration is pictured as a viable response to problems of content balance and as a way to save time and make for natural, holistic learning. (§ 1)

Integration also has the potential to reduce the number of hours instructors spend planning for classroom activities:

Why do teachers and administrators share the same passion for curriculum integration... ? There are several reasons. One is an issue of time. Teachers are under intense pressure to do more. They are expected to teach in greater depth to all students...Curriculum integration ...offers hope that we can save time by teaching two things at once. In addition to saving some teaching time, integration may be a more efficient way to plan. (Goldston, 2004, p. xiii)

Instructors who integrate have the opportunity to network with instructors in other disciplines, a collaboration that is beneficial for all concerned. Another person's perspective on the connections in the learning outcomes broadens and enriches the planning and subsequent learning activities that result from such collegial pursuits. In addition to saving time, instructors are deepening and broadening their connection to other adult education practitioners.

Why is Integration Important?

The concept of curricular integration is not new. Educators first started experimenting with integrating curriculum during the progressive movement founded by John Dewey and Francis Parker in the 1890s (Hinde, 2005). Contemporary educational research continues to explore the multifaceted topic of curricular integration and there is no shortage of experts in this particular field.

Throughout the literature on integration, there is ongoing debate about what constitutes integration and the best way to define it. Some researchers have advocated for the adoption of a universal definition of integration (Venville, Wallace, Rennie, and Malone, 2001), but to date no single definition exists. Part of the problem researchers have had with defining integration stems from practitioners using a number of terms interchangeably. For example, the terms interdisciplinary, multidisciplinary, transdisciplinary, thematic, and integrated are often used synonymously (Lederman & Niess, 1997). To have a thorough understanding of the meaning of integration, it is necessary to examine the meanings of these related terms. There are a number of useful definitions available and because an examination of these varied definitions could prove useful for instructors, several definitions are offered here.

Ledermann and Niess (1997) define *integration* as a blending of subjects to the point where the separate parts of each are indistinguishable from one another. Jacobs (1989) defines *interdisciplinary* as “a knowledge view and curriculum approach that consciously applies methodology and language from more than one discipline to examine a central theme, issue, problem, topic, or experience” (p. 8) while Ledermann and Niess (1997) define *thematic* as a unifying topic that is used to transcend subject boundaries. All of these definitions are valuable for the purposes of understanding integration. The form of integration chosen by an instructor will depend upon his comprehension of the concept and the purpose for which integration is being undertaken. One of the most useful definitions for the purposes of this document comes from Beane (1996), who describes integrated curricula as having four characteristics:

1. It is organized around problems and topics that are of individual and social significance in the real world;
2. It uses relevant information in the context of the topic without regard for subject divisions;
3. It creates/promotes knowledge that is used to study an existing problem rather than memorizing information for a test or grade level outcome; and
4. It emphasizes projects and activities with real application of knowledge and problem solving.

Another challenge for defining integration stems from the multiple and varied ways integration is practiced. Venville and Dawson (2004) suggest it is not easy to define integration because of the diversity of approaches utilized, but suggest that the key features of an integrated curriculum include:

1. Comprehensive investigations that draw on numerous discipline areas;
2. Flexible and adaptable timetable schedules;
3. Team teaching;
4. Learner-centered learning; and
5. High levels of interaction among learners, between learners and instructors, and among instructors from multiple, varied discipline areas.

Alberta Education (2007) has developed a general view of integration that may be useful in understanding the overall nature of integration:

Curriculum integration can be described as an approach to teaching and learning that is based on both philosophy and practicality. It can generally be defined as a curriculum approach that purposefully draws together knowledge, skills, attitudes and values from within or across subject areas to develop a more powerful understanding of key ideas. Curriculum integration occurs when components of the curriculum are connected and related in meaningful ways by both the students and teachers. (p. 2)

Regardless of the definition used to define integration, its fundamental goal is for the instructor to work with learners to develop their knowledge, skills, attitudes, and abilities holistically and authentically. Venville, Wallace, Rennie, and Malone (2001) state: “We propose that curriculum integration be incorporated within what we are calling a worldly perspective that reflects a holistic view of knowledge. This perspective represents pupils’ knowledge grounded in their experiences, relationships and contexts” (p. 19). This statement confirms their belief that learning should start from where the learners are. Questions such as “What do the learners already know?”; “What experiences have they had with the concepts being taught?”; and “How can related concepts be contextualized?” are important for instructors to ask themselves as they collaborate with the learners on the development of learning activities.

One of the goals of integration is to help learners see the interconnectedness of the world around them so the question “Why do I have to learn this?” needs not be asked. By engaging in integrative practices, connections between concepts are distinct and explicit, and not unstated, unformulated, or implied. Learners who experience and understand this interconnectedness become self-directed, life-long learners:

It is important for educators to work together to build knowledge about integrative learning in its many varieties, and about how it is best encouraged and assessed. Developing students' capacities for integrative learning is central to personal success, social responsibility, and civic engagement in today's global society. Students face a rapidly-changing and ever-more-interconnected world, in which integrative learning becomes not just a benefit, but a necessity. (Rover, 2007, p. 276)

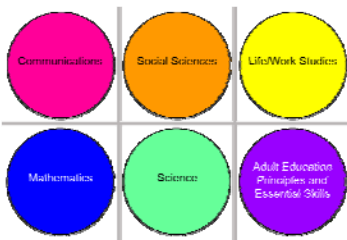
Chapter 2: Levels of Integration

There are ten levels used in the description of contemporary integrative practices (Merickel, 1998). The descriptions of Fogarty and Stoehr's various levels and accompanying discussion, are syntheses of the work done by Merickel (1998), Lake (1994), and Fogarty (1991).

Fogarty and Stoehr (1995) describe integration as a continuum, along which there are several possible ways to develop integrative practices. The first three levels (fragmented, connected, and nested) represent the lowest, and least desirable, levels of integration so only a brief description of each is presented. There are examples in Appendix B, however, of how instructors can begin to integrate if circumstances do not allow for full implementation.

The seven, higher-order, levels of integration represent increasing submersion into a subject or topic are explained in detail in this guide. A visual representation, description, and summary of the advantages and disadvantages of each level are included.

Fragmented Design



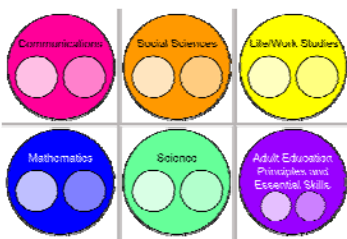
This design is probably the most familiar for educators. Topics, learning objectives or outcomes, and course objectives are separated into discrete subject areas. Each subject area forms an independent course of study or discipline. Integration can begin here by listing and ranking common topics, skills, attitudes, and outcomes between subject areas.

Advantages: The advantage of this design is that each discipline has distinct boundaries and it is relatively easy for instructors to teach within those boundaries.

Disadvantages: Curricular connections are not made in clear, explicit ways which decreases, and may even prevent, the transfer of learning to other contexts.

Example: Each individual instructor highlights the Generic Skills and addresses those using separate content areas. Because subject boundaries are rigid, this level of integration is too shallow to be considered an effective method of integration.

Connected Design



This integration design focuses on the interconnections that can be seen within a single discipline area.

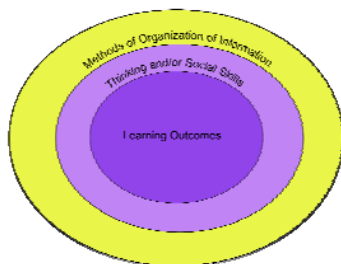
Advantages: Key concepts, topics, and skills are connected in explicit ways that allows learners to review, re-conceptualize, and assimilate ideas within a single discipline.

Disadvantages: The focus is on only a single discipline, which does not encourage connections to other related and relevant subject areas. Learners may have difficulty relating learning to other subject areas.

Examples:

- Identifying the ways that the government affects peoples' daily lives links to the Social Science curriculum with rights, responsibilities, and social action.
- Heating of homes, reading a heating bill, and calculating the costs of heat can be taught together.
- Writing a sentence leads to writing paragraphs which leads to writing essays.

Nested Design



This design method combines topics and concepts in a natural way. Connections and combinations of topics and concepts are made explicitly. Skills in social development, thinking, and content are targeted.

Advantages: Nested planning promotes enriched and enhanced learning within a subject area. Topics can be explored in depth, resulting in broad understanding of concepts and applications.

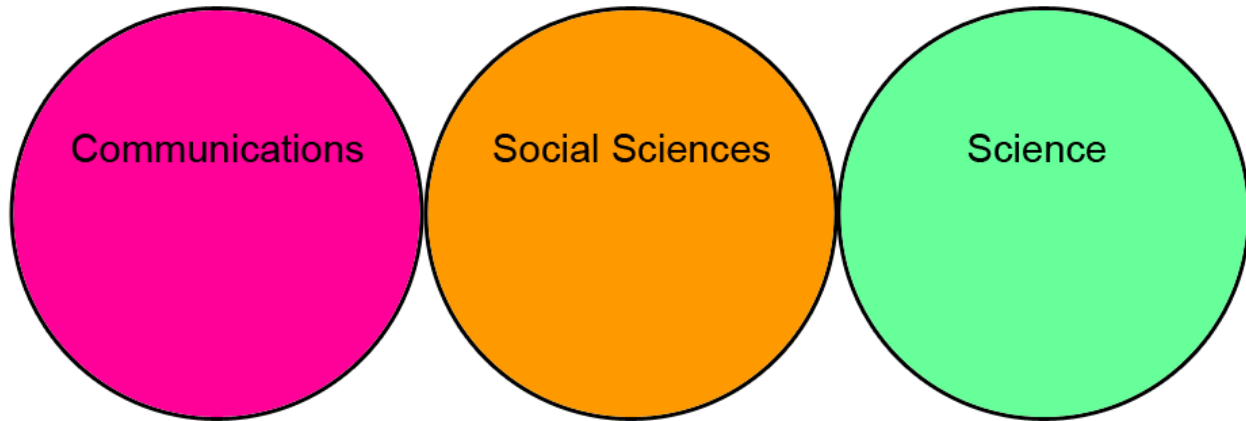
Disadvantages: Learners could become overwhelmed and lose sight of the main unifying ideas and concepts: they may not be able to transfer knowledge to other subject areas.

Examples:

- The outer ring contains an organizational activity such as “Organize and plan a week of menus based on Canada’s Food Guide.”
- The middle ring contains the thinking skills such as creative and critical thinking needed to analyze the nutrients in the foods they are planning to eat.
- The inner ring contains the learning outcomes that are to be addressed, such as reading, understanding, and using Canada’s Food Guide.

The following pages highlight seven models of integration that emphasize the importance of cross-curricular integration. These forms of integration have the most potential for developing contextualized learning outcomes. It is important to remember that planning integrative learning activities includes consultation and collaboration with learners as well as with other instructors.

Sequenced Design



In this design, topics and units are taught separately, but the order in which they are arranged provides a framework where connections to related concepts are established. Similar ideas are taught in unison but in separate subject areas.

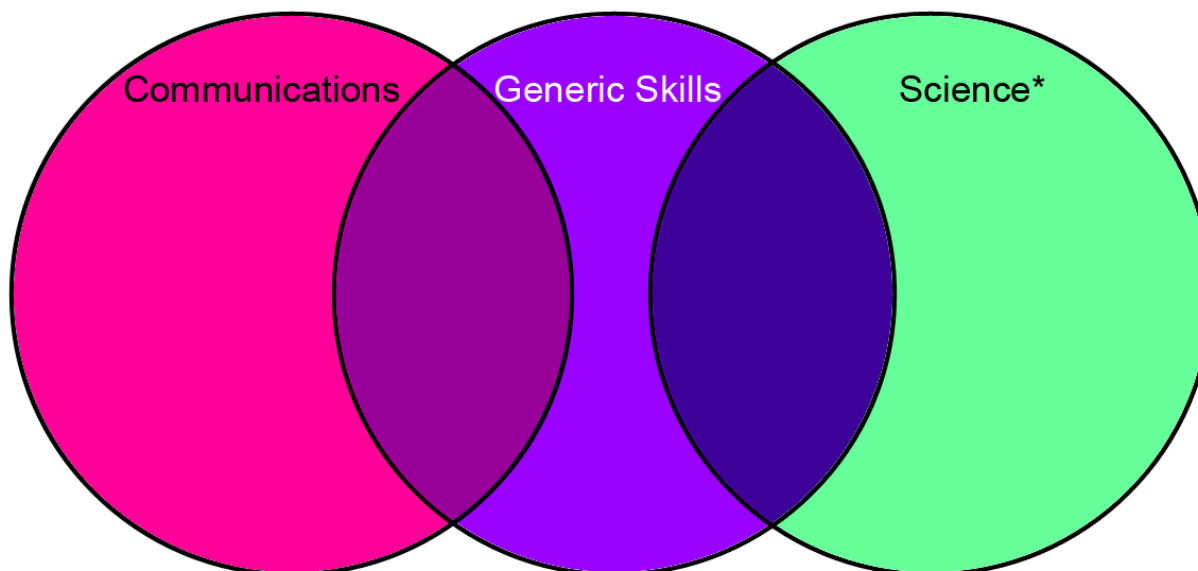
Advantages: The biggest benefit of this model is that it can facilitate the transfer of learning across different content areas.

Disadvantages: The drawback of this model is that teachers who work in separate subject areas will need to co-ordinate classroom activities with one another. Instructors also need to be knowledgeable about their disciplines to be able to determine which skills, topics, and concepts are connected and which should be sequenced first.

Examples:

- If learners want to research the factors that affect specific systems: viruses and bacteria, nutrition, smoking, drugs and alcohol, and chronic and acute diseases (Science), they then could analyze statistics and interpret probability (Mathematics) to make a decision about lifestyle choices (Life/Work Studies) having summarized and synthesized information from at least three or four different sources (Communications).
- Learners can use oral traditions to analyze selections in Communications to determine the author's audience, purpose, bias, and/or point of view, to describe how culture is learned in Social Sciences, and to discuss different definitions of Traditional Knowledge in Science.

Shared Design



* Any number or set of discipline areas can be used.

This design shows separate and distinct disciplines brought together with a single, unified focus. Instructors of separate disciplines collaborate to plan their teaching, and overlaps in concepts, skills, attitudes, and content form the foundation for instruction.

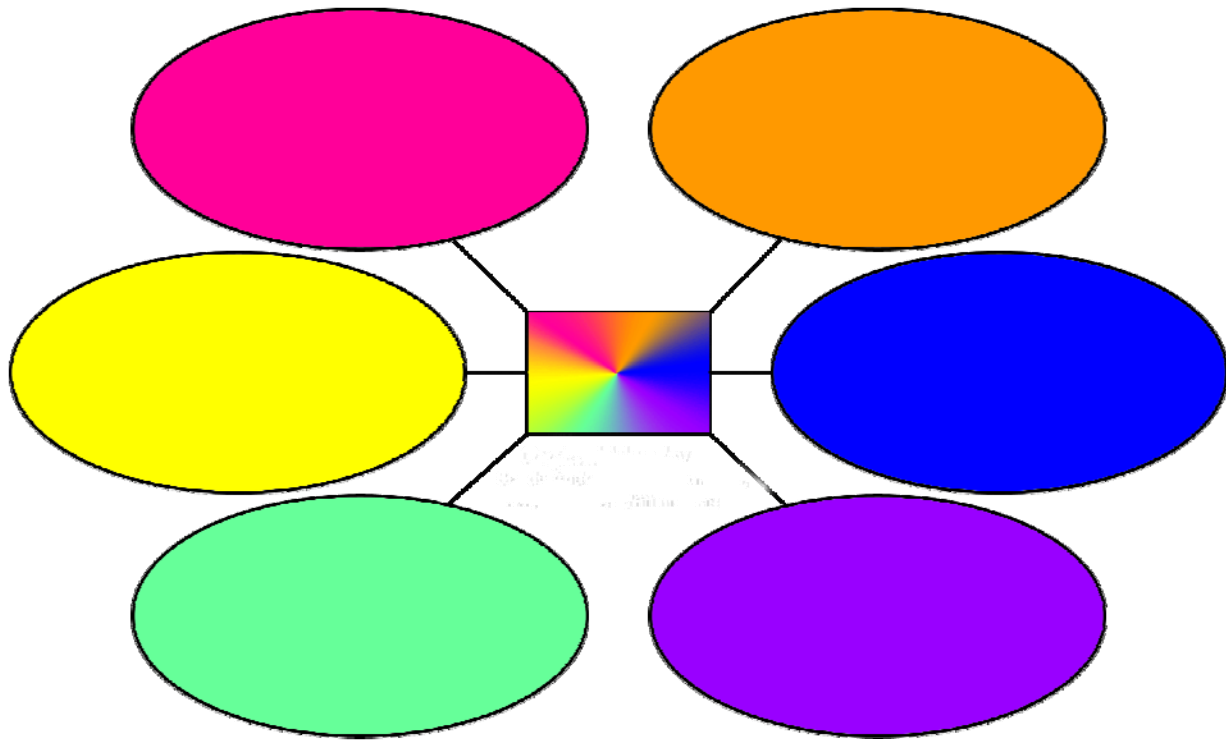
Advantages: The advantage of this model occurs because of the possibility of collaboration with another instructor. It is often easier for two (or more) people to identify curricular overlaps and plan as a team.

Disadvantages: The disadvantage of this model is that such negotiation requires time, flexibility, a high degree of commitment, and willingness to share and compromise.

Examples:

- Learners could choose to study the topic of money management. Budgeting could overlap Life/Work Studies and Mathematics, and technological literacy could be addressed with learners using spreadsheets to track income and expenses.
- A monthly letter created and published by the learners could have common learning outcomes in Communications, with learners identifying a variety of purposes, audiences, and formats for writing, and including the generic skill of technological literacy.

Webbed Design



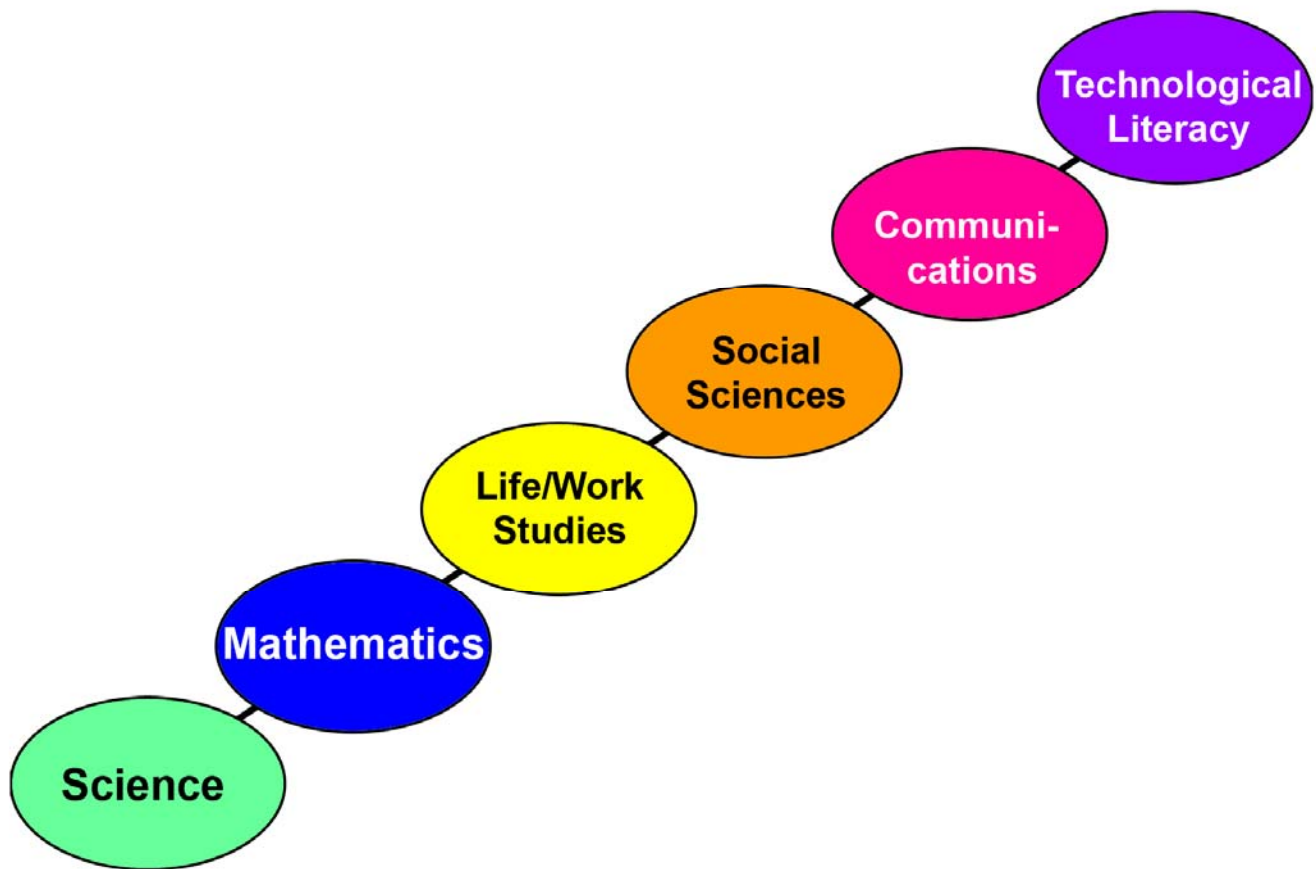
Themes spanning multiple subject areas typify this design format. The themes suggested by learners can be expansive in scope, providing instructors from multiple discipline areas an opportunity to contribute to, and participate in, the integration process.

Advantages: Learners are motivated to learn when they explore and understand related ideas using multiple perspectives.

Disadvantages: Thorough planning is required to ensure that academic content is relevant to the theme chosen by the learners

Example: Learners could choose to create a brochure (Technological Literacy and Communications) that explains the possible consequences of decisions about individual and societal resource use (Science and Social Sciences), and which includes various graphs (Mathematics) to illustrate aspects of resource use.

Threaded Design



The threaded design places an emphasis on the development of problem solving skills, thinking skills, social skills, multiple intelligences, and study skills across all of the disciplines.

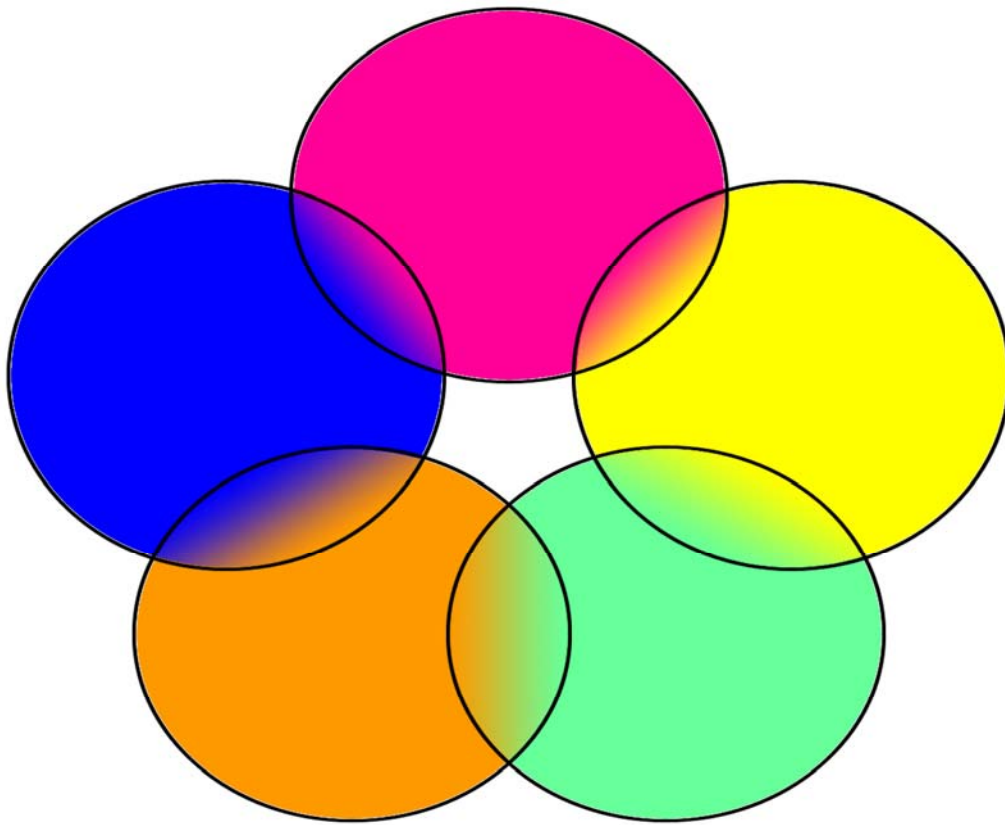
Advantages: Learners learn how they are learning and how to transfer that learning to other contexts (metacognition). The focus is on the processes of learning.

Disadvantages: The disadvantage of this integration style is all of the disciplines are maintained as separate entities, and although information and processes are linked, they are not taught together.

Examples:

- The ideas of balance, justice, or equality could be developed throughout the curricula.
- Problem solving skills, document use, or any generic skill could be threaded through the curricula.

Integrated Design



This interdisciplinary approach encourages learners to recognize and develop related topics, concepts, skills, and attitudes. Instructors facilitate learning by examining the various disciplines and determining what learning outcomes can be addressed and where natural overlaps occur.

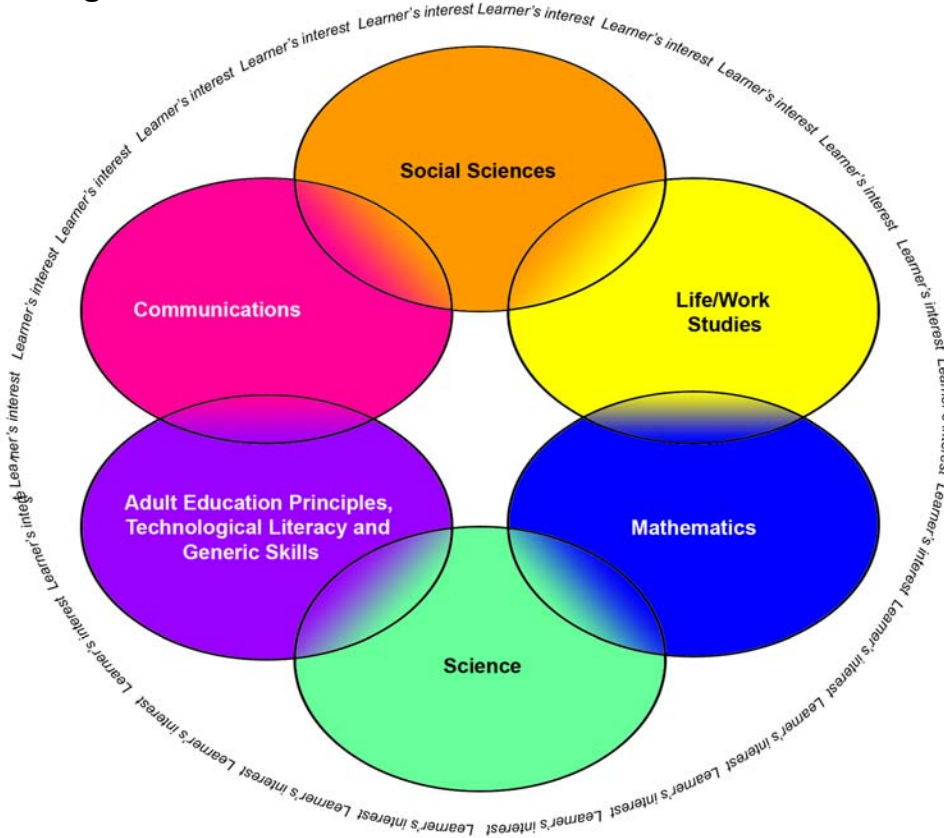
Advantages: The benefit of this type of integration is that learners see the interconnectedness and interrelationships among separate disciplines, which confirm the learning as linked and directly related to the learners' lives.

Disadvantages: A disadvantage of this form of integration is, that in a subject-specialist environment, teams of instructors must be highly committed to the planning and processes involved in such in-depth integration.

Examples:

- Instructors and learners develop the concept of patterns and patterning models to approach and address content from all curricular areas.
- Learners bring traditional perspectives and models of knowledge that are explored in all curricular areas.

Immersed Design



This is a highly intensive form of integration where all curricular content is focused on the learner's interest and developing expertise for a given topic. Integration takes place within the learners themselves, with no interference or intervention from the instructor. The role of the instructor here is facilitation of learning. Immersed learners make connections for themselves between their topic of interest and the various disciplines of study.

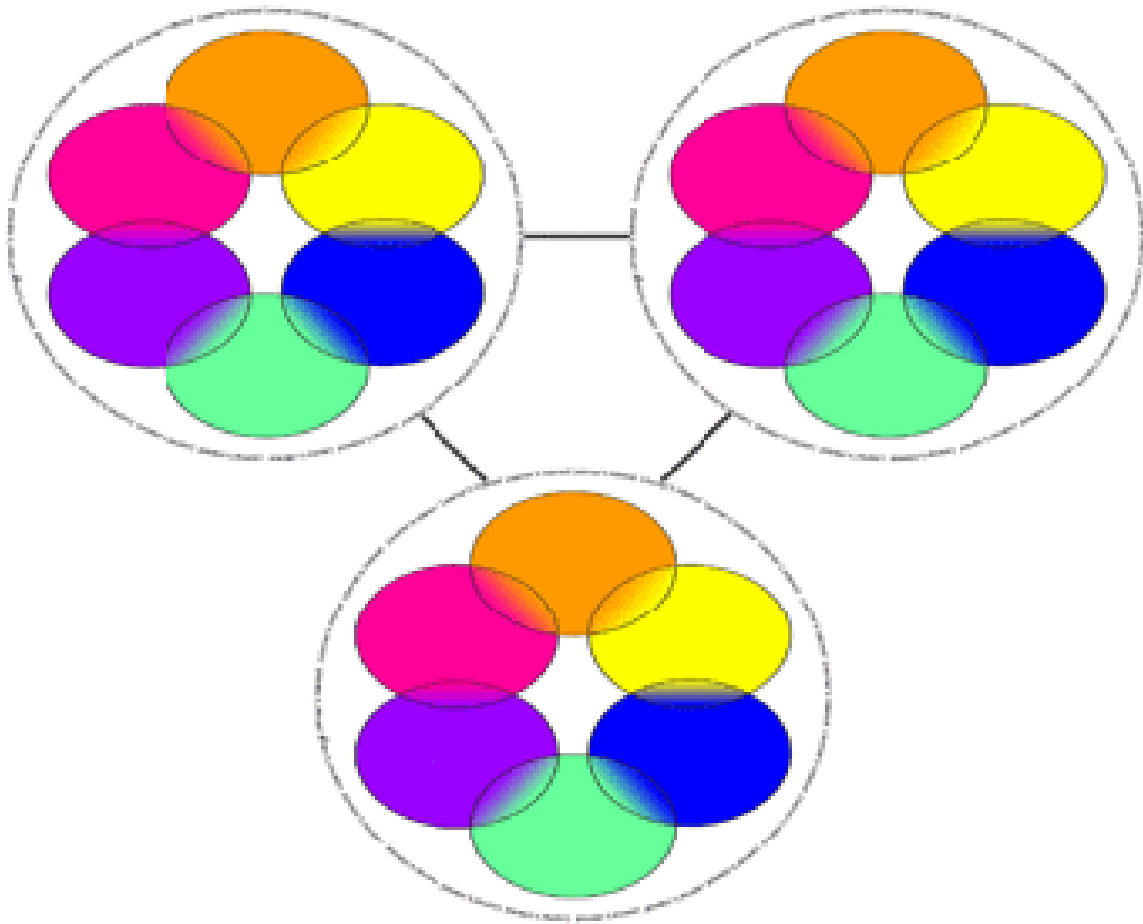
Advantages: The design's biggest strength is that this form of integration and learning is highly self-directed, and reflects how adults learn outside formal education situations.

Disadvantages: The drawback to this design is that such an extensive and intensive focus on a single topic may narrow the focus of the learner, and may be difficult for a learner to maintain a high degree of interest for an extended period. As well, in-depth study of a topic may not be possible given time constraints in some programs.

Examples:

- A focused learner who is planning on a career in the health sciences field could relate all that he or she learns to health care.
- Learners concentrate all of their efforts on a specific topic that is of significant interest to them and makes connections within all curricula.

Networked Design



A networked design of integration is a completely learner-centered form of integration. Learners self-direct the integration process through the selection of a network of experts and resources. Connections within and among different disciplines are made by the learner.


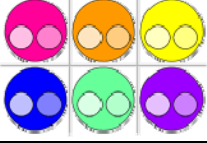
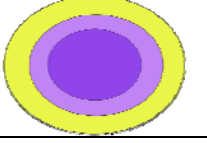

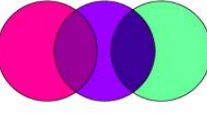


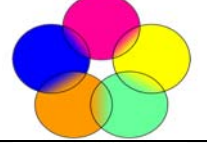
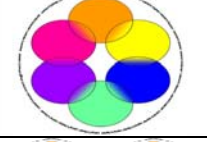
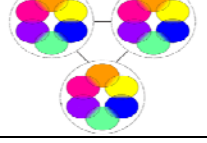
Advantages: The advantage of this form of integration is that it is stimulating and empowering for the learner, and reflects how lifelong learners approach learning.

Disadvantages: The disadvantage of this style is similar to the immersed design – learner interest may wane, the efforts of the learner may be spread too thin, and efforts may become ineffectual and result in frustration and ultimate lack of engagement.

Examples:

- A learner interested in space decides to investigate why Pluto isn't a planet anymore and researches the topic on the Internet, writes a letter to a scientific expert, visits a museum dedicated to chronicling space exploration, etc.

Levels of Integration: Summary Chart

Name	Image	Description	Advantages	Disadvantages
Fragmented		Separate and distinct disciplines	Clear and discrete view of a discipline	Connections are not made clear for students; less transfer of learning
Connected		Topics within a discipline are connected	Key concepts are connected, leading to the review, reconceptualization, and assimilation of ideas within a discipline	Disciplines are not related; content focus remains within the discipline
Nested		Social, thinking, and content skills are targeted within a subject area	Gives attention to several areas at once, leading to enriched and enhanced learning	Students may be confused and lose sight of the main concepts of the activity or lesson
Sequenced		Similar ideas are taught in concert, although subjects are separate	Facilitates transfer of learning across content areas	Requires ongoing collaboration and flexibility, as teachers have less autonomy in sequencing curricula
Shared		Team planning and/or teaching that involves two or more disciplines focus on shared concepts, skills or attitude	Shared instructional experiences; with two or three teachers on a team it is less difficult to collaborate	Requires time, flexibility, commitment and compromise
Webbed		Thematic teaching, using a theme as a base for instruction in many disciplines	Motivating for students, helps students to see connections between ideas	Theme must be carefully and thoughtfully selected to be meaningful, with relevant and rigorous content
Threaded		Thinking skills, social skills, multiple intelligences, and study skills are "threaded" throughout the disciplines	Students learn how they are learning, facilitating future transfer of learning	Disciplines remain separate
Integrated		Principles that overlap multiple disciplines are examined for common skills, concepts and attitudes	Encourages students to see interconnectedness and interrelationships among disciplines, students are motivated as they see these connections	Required interdepartmental teams with common planning and teaching time
Immersed		Learner integrates by viewing all learning through the perspective of one area of interest	Integration takes place within the learner	May narrow the focus of the learner
Networked		Learner directs the integration process through selection of a network of experts and resources	Pro-active, with learner stimulated by new information, skills or concepts	Learner can be spread too thin, efforts become ineffective

From <http://docs.ksu.edu.sa/DOC/Articles07/Article070322.doc>

Part Two: Putting Theory into Practice

Chapter 3: Embedding Integrative Practices

Introduction

Integrative practices involve collaboration with learners and other instructors to develop learning activities that are relevant to the learners. Ideally, learners brainstorm collectively (or the instructor facilitates a group discussion) to capture and articulate an issue or concern that can be designed into a theme to be studied. Because of the variety of program delivery structures in Saskatchewan, different approaches will be used to implement contextually-based instruction for adults.

Regardless of the approach used to identify relevant themes and contexts, academic skills are taught through resource materials that reflect the personal, work, and/or community contexts of learners. The skills that learners develop in formal education situations are connected to the broader contexts of their lives.

Where Do I Begin?

You have read the previous sections on the theory of curriculum integration and you can see its benefits for both you and the learners. You are interested in curriculum integration but you are not sure how to start the process. This section has been designed so you will find some questions you can ask yourself to begin the process, and some answers to those very questions.

You have probably integrated themes, units, lessons, and activities before, but you just haven't labelled those procedures as integrative. Regardless of your comfort level with the process of integration and the labels used to identify it, the following section will assist you in your efforts to engage in meaningful integration practices.

The suggestions described here are not exhaustive. There are countless ways to plan integration activities, lessons, units, and themes. It will be up to you to decide if the suggestions and tips detailed here serve your purposes or if you need to modify aspects of them to suit your particular instructional context and situation. Please feel free to adapt, modify, or discard as required.

**Method One:
Start with a Theme**

For many instructors, this will be the most familiar way to plan integrated activities with learners. A broad, general broad theme is first developed and chosen and then relevant learning activities and lessons from multiple curricular areas are created.

1. Survey learners for ideas that fit within the scope of the curriculum. Involving the learners in the development of the activities they will be engaged in accomplishes several things at once. Firstly, it acknowledges that the learners have previous experiences and that these experiences will be included in what they will explore further in the classroom. One of the foundation of adult learning principles is to start where the learners are and to build on that base with further exploration and study. Including the learners in planning themes and integrated themes/units/lessons/activities does this. Secondly, ensuring learners are part of the planning process will encourage the learners to learn and help maintain their motivation. Lastly, having more than one person involved in the planning of these activities often sparks reciprocal creativity and creates rapport.
2. Choose a theme to use from those generated.
3. Review the planners outlined in this guide. Is there one that appeals to you? Try to plan your unit, lesson, or activity using it. You may find part way through that your first planner selection didn't work for you. That's all right; you can modify the planner, select a different one, or create your own.
4. Consult the curriculum guides to see where natural connections to the theme exist, looking for overlap between the curricula. Record these connections on your chosen planner.
5. Determine which learning outcomes your theme will address. Record these on the planner in order of importance.
6. Review the lesson plans you have used previously. Are there some favourite activities you already use in your classroom that would fit well with the theme and the learning outcomes you have identified from the curriculum guides? Include these in your plans.
7. Review the Generic Skills in Part two and the Technological Literacy Checklist in Appendix A of one of the curriculum guides. Which generic or technological skills fit naturally with your theme and lesson activities? Include these in your recorded plans.
8. Identify and list the relevant resources you will use during the course of your unit/lesson/activities. Be sure to think locally, and use resources that are readily

available in the community. Remember to think about electronic resources as well as resources learners bring with them. Record these on your planner.

9. Review the assessment section of this guide. Decide which assessment practices appeal to you: is there something new you would like to try? Involve the learners in the development of the assessment strategies, and offer the learners choices of assessments that fit within the evaluation scheme. Record the assessment methods you will use. On the planner, record the assessment tools you will use.
10. Determine the evaluation scheme, and decide how you will weigh the assessments. As yourself how flexible your assessment is going to be. Will a final mark be used as a culmination of the unit or will a portfolio be developed with ongoing activities being added as the year progresses?
11. During and after the learners have completed the learning activity, reflect on what has occurred.
 - How well did things go?
 - Do you feel the integrated activity, lesson, unit, or theme was well developed?
 - Were there some ways your initial curricular connections could have been expanded?
 - What feedback did you receive from the learners? How will you incorporate their feedback into planning the next integrated learning activity?
 - Read and respond to the reflective questions found in each of the curriculum guides to assist you in determining how well the content and learning outcomes were covered in each of the different subject areas you used in your integration activities.
12. Ask the learners to reflect on the learning activity. How did they react to the process? How did they feel about learning in an integrative way?

Method Two:

Start with an Activity/Lesson

Many instructors want to ease themselves into integration waters by starting with a simple classroom activity or familiar lesson and then expanding it to include learning outcomes from several curriculum areas. The steps listed here are a general outline that can be adapted or used as is.

1. Select your favourite classroom activity or lesson from any subject.
2. Consult the curriculum guides (either paper or online versions) and determine natural connections between your activity/lesson and various curricula.
3. Select an integration planner that appeals to you. Record the learning outcomes from the different curriculum areas onto the planner. (Note: Even if you teach a

single subject, integration is possible. Give yourself permission to explore other curricula for ideas.)

4. Adapt your activity/lesson to include the identified learning objectives.
5. Follow steps 7 – 12 in the above example (integrating using themes) and apply them here.

Method Three: Aligning Learning Outcomes

1. Review the learning outcomes of at least two curriculum guides.
2. Make note of where the learning outcomes of one guide complement or are the same as learning outcomes of the other guide(s). Record these.
3. Review planners and select one that appeals to you.
4. Adapt a learning activity or create one that addresses the selected learning outcomes. This may be done in collaboration with the learners to determine what they would like to learn.
5. Review the Generic Skills in Part Two and the Technological Literacy Checklist (Appendix A) of one of the curriculum guides to ensure these are addressed in the learning activity.
6. Identify and list the relevant resources you will use during the course of your unit/lesson/activities. Record these on your planner.
7. Review the assessment section of this guide. Decide which assessment practices appeal to you: is there something new you would like to try? Involve the learners in the development of the assessment strategies, and offer the learners choices of assessments that fit within the evaluation scheme. Record the assessment methods you will use. On the planner, record the assessment tools you will use.
8. Determine the evaluation scheme, and decide how you will weigh the assessments. As yourself how flexible your assessment is going to be. Will a final mark be used as a culmination of the unit or will a portfolio be developed with ongoing activities being added as the year progresses?
9. During and after the learners have completed the learning activity, reflect on what has occurred.
 - How well did things go?
 - Do you feel the integrated activity, lesson, unit, or theme was well developed?

- Were there some ways your initial curricular connections could have been expanded?
- What feedback did you receive from the learners? How will you incorporate their feedback into planning the next integrated learning activity?
- Read and respond to the reflective questions found in each of the curriculum guides to assist you in determining how well the content and learning outcomes were covered in each of the different subject areas you used in your integration activities.

10. Ask the learners to reflect on the learning activity. How did they react to the process? How did they feel about learning in an integrative way?

Method Four:

Start with Random Learning Outcomes

Although this may seem to be an unorthodox method of planning, this technique was used with great success during a consultation with adult basic education instructors. They reported that it was a great deal of fun.

1. Print out the summaries of the learning outcomes for all of the curriculum guides.
2. Cut the learning outcomes into strips so that a single outcome appears on each strip. Place each set of learning outcomes into separate envelopes.
3. Randomly draw two learning outcomes from each envelope.
4. Pick a planner to help you organize your activity/lesson/unit/theme.
5. Follow steps 6 – 12 in the first example (integrating using themes) and apply them here.

A table explaining these four methods can be found on the following page.

Steps to Integration: Summary Chart

Starting with a Theme	Starting with an Activity or Lesson	Starting with Learning Outcomes	Starting with Random Learning Outcomes
<ol style="list-style-type: none"> 1. Brainstorm ideas with learners. 2. Choose theme. 3. Review planners. 4. Consult curriculum guides. 5. Record relevant learning outcomes. 6. Review familiar activities and lessons. 7. Review Generic Skills and Technological Literacy outcomes. 8. Identify resources. 9. Review assessment section of integration guide. 10. Collaborate with learners to determine assessment strategies. 11. Determine evaluation scheme. 12. Instructors self-reflect. 13. Learners reflect. 	<ol style="list-style-type: none"> 1. Select favourite lesson/activity. 2. Consult curriculum guides. 3. Review planners. 4. Record relevant learning outcomes. 5. Adapt chosen lesson/activity. 6. Review Generic Skills and Technological Literacy outcomes. 7. Identify resources. 8. Review assessment section of integration guide. 9. Collaborate with learners to determine assessment strategies. 10. Determine evaluation scheme. 11. Instructors self-reflect. 12. Learners reflect. 	<ol style="list-style-type: none"> 1. Review learning outcomes from different curriculum guides. 2. Note correlation between guides. 3. Review planners. 4. Adapt learning activity or lesson to address multiple learning outcomes. 5. Review Generic Skills and Technological Literacy outcomes. 6. Review assessment section of integration guide. 7. Collaborate with learners to determine assessment strategies. 8. Determine evaluation scheme. 9. Instructors self-reflect. 10. Learners reflect. 	<ol style="list-style-type: none"> 1. Print summaries of learning outcomes for all curricula. 2. Cut learning outcomes into strips. Place into envelopes. 3. Randomly draw two learning outcomes from each envelope. 4. Review planners. 5. Review familiar activities and lessons. 6. Review Generic Skills and Technological Literacy outcomes. 7. Identify resources. 8. Review assessment section of integration guide. 9. Collaborate with learners to determine assessment strategies. 10. Determine evaluation scheme. 11. Instructors self-reflect. 12. Learners reflect.

Chapter 4: Program Considerations

Things to Consider

All instructors can practise integrative strategies, regardless of their program type or individual teaching assignment. In this section, suggestions to promote and develop integration processes for the following program types are provided:

- Continuous intake/regularly scheduled intake classrooms;
- Subject specialists/single discipline instructors;
- Multi-level/multi-subject instructors; and
- Environments that promote collaboration.

Continuous intake or regularly scheduled intake programs

- Survey the learners for ideas that fit within the scope of the curriculum.
- In collaboration with the learners, plan themes (including resources and assessments) that reflect learning outcomes from different curricula.
- Plan whole class activities such as a science experiment, reading the newspaper, or field trips. The learning activities can be assigned or accomplished differentially, depending upon the nature and skills of the learners. For example, the learners read newspapers (a local newspaper or an online edition) and individual learners interact with it at different levels.
 - Learners who recently joined the group could be asked to complete a reflection on an article of interest or answer factual questions about what they have read.
 - Learners who have gained a level of confidence and comfort within the group could be asked to debate the pros and cons of a controversial article.
 - Advanced learners could research and write a dialectical essay that explores at least two perspectives of a controversial article.
- Learners can complete the same assignment, but can be assessed differently according to their individual needs.

Subject specialists or single discipline programs

If you are a subject specialist, integration with other subjects is possible. Give yourself permission to explore other curricula for ideas.

- Map out the subject areas outside your specialty you would like to integrate and consult with your colleagues in these disciplines. Do they have suggestions for you, are they willing to collaborate with you to team-teach, or will they teach the content concurrently?
- If there is no one who is able to assist you in these ways, address the concepts and skills from other disciplines that support your integrative ideas and activities.
- Recognize that integration may start small. Even if you take your favourite activity or lesson and add one or two learning outcomes from another subject area, you are reinforcing and contextualizing the learning outcomes for your learners.

Multi-subject programs

Instructors in multi-level/multi-subject classrooms probably already integrate by necessity, but the following are some suggestions to facilitate the process.

- Projects are effective ways to address learning outcomes from multiple curricula.
- Job fairs, culture fairs, and science fairs are opportunities for learners to develop their interests and goals.
- As stated in the continuous intake or regularly scheduled intake integration suggestions list, learners can take part in whole room activities that are individualized for specific levels and learner groups. One example of a teacher led activity is the online science lab "[Reebops](#)." For example, learners can model the processes of meiosis and once the activity has been completed, learners can be assigned different extension activities:
 - Level Three learners could complete a simple Punnett square and determine phenotypes and genotypes involving single gene inheritance, relating this concept to Social Sciences and Life/Work Studies.
 - Level Four learners could complete complex Punnett squares based on multi-genic inheritance properties or multiple inheritance patterns such as co-dominance.
 - Mathematics learners could determine the probability a phenotype will be expressed based on the genotypes of parents. They could also calculate phenotypic/genotypic ratios of offspring.

- Communications learners could write or tell the class about their Reebop's genetic make up.
- All learners could debate the ethics involved in prenatal genetic screening.

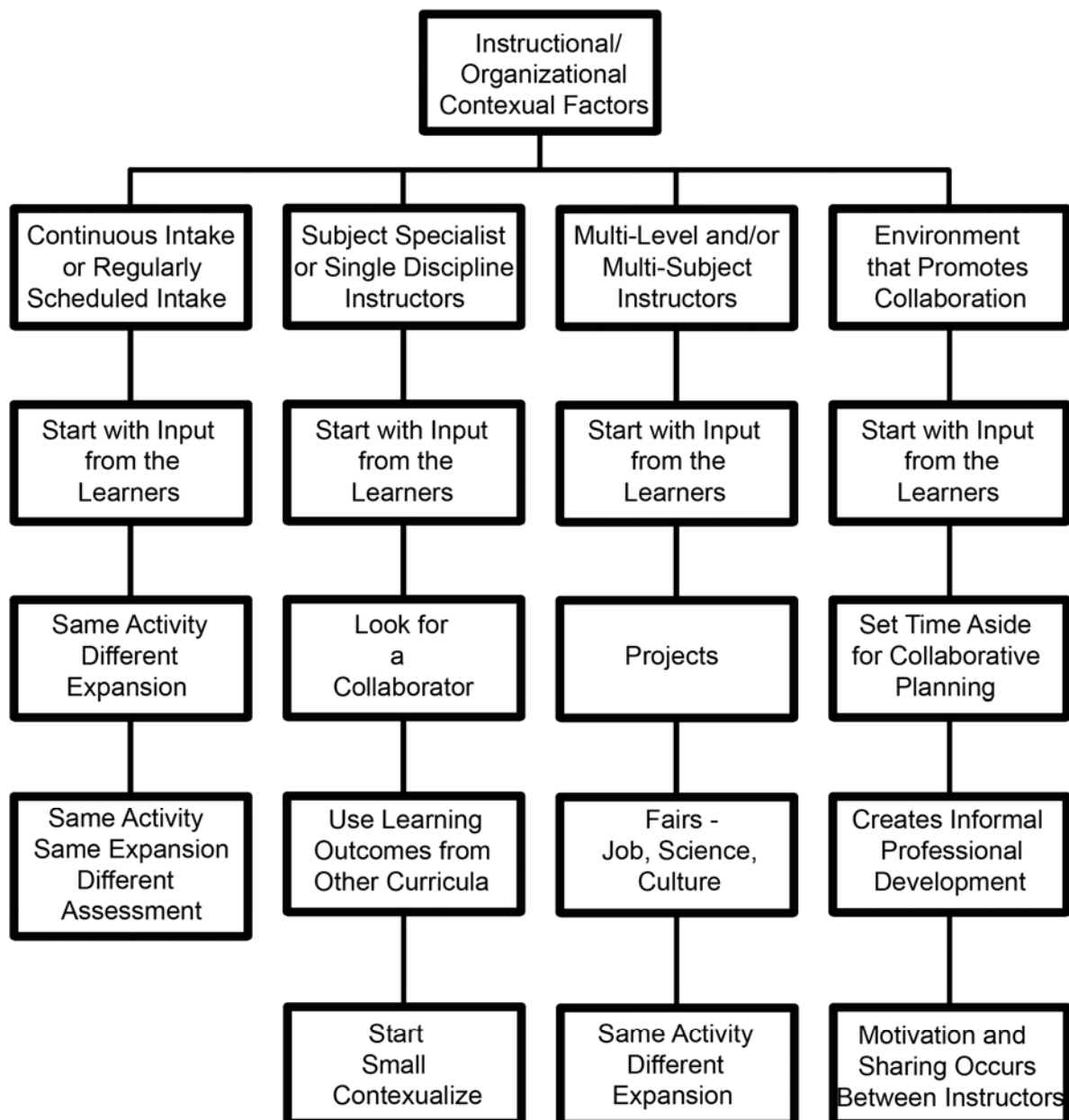
Suggestions for post-secondary delivery organizations

The instructors at Dumont Technical Institute (Prince Albert)¹ offer the following suggestions to support integrative teaching practices throughout a delivery organization.

- Planning activities in a focused, structured manner helps advance integration processes. It is important to set aside time for colleagues to work together to focus specifically on planning for integration.
- Collaborative planning provides opportunities for instructors to work together during the school day to make curricular connections by examining their practice, consulting with colleagues, and developing their skills. This informal professional development encourages reflective practice.
- During professional development, teachers motivate each other to try a range of approaches to teaching, learning, and assessing. Teachers add to their repertoire of instructional strategies, and by planning together provide enriched learning experiences that support students in achieving learning outcomes.
 - Earth Day Poetry Café: Learners in Levels One, Two, Three, and Four read poetry they had written based on the themes of climate change and how human activity affects the Earth's climate. To prepare to write the poetry, students researched atmosphere, oceans, areas covered by ice and snow, and living organisms. Lunch was served to the learners after the readings.
 - Around the World in Métis Blaze: Instructors and learners prepared for this event by gathering information about a country of their choice. Each learner gathered demographic and economic information, as well as data on monetary values, tourist attractions, and symbols of that particular country. Learners presented their work during DTI's "World Cultural Day". Learners prepared a traditional food from their chosen countries for the other learners.
 - Métis Studies and Communications learners worked on an essay assignment about a topic in Métis Studies. The content was assessed by the Métis Studies instructor and the Conventions of English were assessed by the Communications instructor.
 - Technological literacy – learners used various software applications in Science, Communications, and Life/Work Studies.

¹ Many thanks to Frances Buchan, Janice DePeel, Angela Letendre, Elizabeth Majocha, Sherry McLennan, and Kim Rowe for submitting these suggestions.

Program Considerations: Summary Chart



A Word about Resources

Resources are always a concern for instructors and learners, but integrative practices do not need any extra, specialized, or expensive resources. Textbooks generally do not support integrative practices: they are subject specific and usually do not encourage cross-curricular learning.

When contextualizing learning for adults, the primary source for resources and materials is the community – the everyday print material, workplace documents, and human resources that are easily accessible. Other resources and materials which are relevant to the learners and which reflect the learning outcomes of all five curriculum guides can be obtained at little or no charge from local, provincial, and federal government agencies as well as from non-governmental organizations and community-based organizations. The best resources, however, are found closer to home. Learners and other instructors are a rich source of knowledge and skills that can be utilized in learning activities.

Instructors should look to learning activities they have used previously to see which ones can be enhanced to align with the integrative practices described in this guide. Simple labs or writing assignments can be expanded to include learning outcomes from other subject areas. Assignments given in one subject can be evaluated in other subjects for different purposes, as suggested by the instructors at DTI. This will help remove artificial subject boundaries: the conventions of English are just as important in Mathematics as they are in Communications. Developing and understanding graphs in Social Sciences or Life/Works Studies reinforces and supports learning in Mathematics.

Later in this guide, you will find a list of resources that will be useful to you as you continue to develop integrative practices. Some of the resources give detailed background on the theory of integration and how to implement it while others have practical strategies and tips.

Part Three: Assessment and Evaluation

Chapter 5: About Assessment and Evaluation

Distinguishing Between Assessment and Evaluation

The differences between assessment and evaluation are not always well understood. Assessment can be thought of as what the learner does, while evaluation is a judgement that is typically made by the instructor.

Assessment provides feedback to the learner on his progress as well as showing areas for improvement. The assessment tool can be a project, a lab, a test, or a problem-based activity that runs the length of an activity, a unit of study, or a course.

Evaluation is generally a judgement that is made on the information gathered through the assessment of learners and which informs learners of the competency level they have reached. By reviewing the evidence collected in selected assessments, instructors and learners can determine the value of the final products and assign a score or grade. A balanced and comprehensive evaluation will incorporate all types of assessment and emphasize both the processes and products of learning.

Assessment

The manner in which learners are assessed should match the instructional processes used and learners should be assessed in ways that allow them to demonstrate growth over time.

During formative assessment tasks, instructors make observations that allow learners to know how they are doing at a given learning task. Learners are also involved in self-assessment tasks to monitor their own learning. As learners develop skills, the instructor and the learner identify parts of the task that the learner does know and those that she does not know or is yet unable to do. The results of formative assessment tasks are used to inform and improve instruction. Formative assessment tasks also provide learners with important information about course expectations while giving them a target or a goal for which to strive.

Summative assessment occurs at the end of a unit, a group of units, or at the end of the course. Summative assessment is used to determine learners' skills and knowledge, as well as the effectiveness of the course. The learner's knowledge and understanding of generic skills and learning outcomes, and the culminating assessment of the teaching/learning process throughout the course, are summarized to arrive at a final grade. Items included in the summative assessment are often "weighted", that is, given different numerical importance. Consistent with a collaborative relationship, the weighting of assignments, projects, or tests may be negotiated with the learner.

The final mark in any Level Three course is determined by considering all the assessment activities. Often, the “weighting” of specific assignments will vary from individual to individual based on his strengths and preferences. For example, one individual might prefer the final mark in a given assignment to rely more upon an oral presentation, while another might want greater emphasis on a written report. All aspects of the curricular area, however, will be included in the final mark.

Evaluation Schemes

Not every piece of assessment needs to be nor should be included in the evaluation: assessment has purposes other than deriving a “final mark”. Instructors and learners should develop an evaluation scheme for all learning activities with the learners at the earliest opportunity. The evaluation scheme must be easily and clearly understood in its derivation of weightings as well as which assessments will be included in the evaluation. The scheme chosen for evaluation will depend on the instructor’s professional judgement, the individual learner, and the assessment strategies used. Effective evaluation schemes contain a variety of assessment methods and tools. If the majority of a learner’s final grade comes from written tests then the evaluation scheme should be adjusted. An evaluation scheme can always be adapted as the course progresses, based on progress of the learners and how the course unfolds.

Chapter 6: Authentic Assessment

The intent of authentic assessment is to look at a learner's work as a whole and to conduct assessments under conditions similar to conditions found outside the formal learning environment. For example:

- Adults often work in teams in the workplace;
- The mechanic or the statistician has access to an array of reference materials in order to perform her tasks;
- Security personnel write a report at the end of a shift; and
- Parents need to know how to write a clear note to their child's teacher.

Authentic assessments are used to encourage the development of analytical skills, integration of learned materials, as well as critical and creative thinking, collaboration, and the development of written and oral expression. Authentic assessment reflects the learning outcomes of a curriculum guide and are aligned with the learning activities that support them. Assessment should be designed to allow for true representation or actual performance of a skill: the learning process is as important as the finished product.

For example, learners write for real-life purposes rather than answering questions about writing or completing grammar work sheets. Learners construct their bases of knowledge through their participation in integrated activities, allowing learners to engage in holistic, contextualized ways with the curriculum.

The chart on the following page shows some examples of authentic assessments that could be used with adult learners. An everyday activity of determining flooring costs and options is used as the unifying theme in the chart.

Subject Area	Learning Outcome	Practical Applied Activities
Communications	Reading for specific information from a variety of sources.	Read a newspaper/store flyer that advertises the prices of different types of flooring.
Technological Literacy	Use spreadsheets to organize and present data and to create graphs.	Use a spreadsheet program to compare and contrast the different costs associated with each type of flooring.
Science	Learners will explore the interconnectedness of matter, energy, life, culture, society, technology, and environment to determine the purpose of science and its role in people's decision-making and problem-solving.	Research each type of flooring and assess which is most environmentally friendly. Examine the ethical considerations of the flooring choice.
Mathematics	Apply various area calculations to real life situations. Take measurements to estimate and calculate area.	Calculate perimeter, area and use those measurements to calculate the costs of flooring a room using various types of materials.

Designing Assessment Tasks and Tools

The diversity in assessment tasks reflects the diverse learning needs of adults. When planning assessment, instructors should emphasize different skills and strategies depending on the needs of the learner. Some Communications learners may need a greater emphasis on development of sustained reading skills while others may need more time to develop writing skills or to focus on the Conventions of English. Projects that require the application of skills and knowledge from several subjects are an effective assessment technique for integrated learning activities.

Assessment activities must have a clear purpose and reflect instructional strategies and content/generic skills. Learners will have had many opportunities to develop and use the skills before being asked to demonstrate them in an assessment activity. The standards or expectations for each task are clear for both learner and instructor. There are as many authentic assessment tasks as there are learning activities, and include but problem-solving scenarios, reflective journals, projects, performances, computer simulation tasks, and portfolios. Instructors and learners are encouraged to be creative in the design of assessment activities.

The instructor has significant flexibility in determining how to assess the achievement of learning outcomes. Assessment should be negotiated with the learners during the planning of the learning activity.

When planning and negotiating assessment with learners, the instructor should consider the following questions:

1. What important facts, concepts, principles, generalizations, skills, and procedures need to be covered in this course?
2. How will I determine the extent of learners' prior knowledge?
3. What misconceptions or gaps in learning and skills will I need to address when planning instruction for learners?
4. What are the most appropriate ways and times to assess whether learning of knowledge, procedures, and skills has occurred?
5. How will I design assessment that reflects the varied learning styles as well as the strengths of the learners?

Samples of some assessment tools are provided in this chapter. The tools described here do not form a comprehensive list of all available assessment methods. Rather, these are methods that are well suited to integrative activities, forming a basis for the continuing development of assessment practices. Instructors are encouraged to use these tools as a starting point and to keep adding to their knowledge base. Please note that these are samples only, and should be modified to reflect the needs of the learners.

Assessment Tools and Samples

All the assessment tools and samples listed in this guide can be used alone as well as in conjunction with one another. For example, instructors may design rubrics or rating scales with their learners and the learners can then use those tools to self-assess their progress. More than one assessment strategy can be used to assess a single activity, lesson, or project. Generally, the more complex the task is, the greater the variety and number of assessments an instructor will use in order to have a comprehensive assessment picture of learner progress.

1. Rubrics

Rubrics can be used to assess specific tasks, products, or strategies as well as the larger, more holistic aspects of learning. In general, a rubric is a scoring guide used in subjective assessments. A rubric organizes the defining criteria of an assessment for a particular task. Used with a rating scale, a rubric becomes an explicit description of performance characteristics that allows a learner to know the expected qualities for a

given task. The instructor can make rubrics for specific assignments, projects, or entire units of study. Rubrics can be developed collaboratively with learners or with other instructors. Rubrics generally follow a template, such as the one that follows.

Components of a Rubric

Performance Component	Word/number reflecting level of mastery	Word/ number reflecting level of mastery	Word/number reflecting level of mastery	Word /number reflecting level of mastery
First performance component	Description of identifiable performance characteristics reflecting a beginning level of performance	Description of Identifiable performance Characteristics reflecting movement toward mastery of performance.	Description of identifiable performance characteristics reflecting mastery of performance	Description of identifiable performance characteristics reflecting the highest level of performance
Second performance component				
Third performance component (Etc)				

For integrated units/lessons/activities, instructors and learners can construct more than one rubric to assess the learning outcomes in each curricular area. For example, an integrated activity that combines learning outcomes from Communications, Science, and Mathematics could be assessed three different times, with the each rubric focusing on a separate subject area. This method is easily adaptable to a team teaching or collaborative integration partnership.

A single assignment could be assessed for a variety of purposes and by a variety of instructors. Another benefit of using rubrics is it allows learners to have input into how they will be assessed easily. By participating in the design of the rubric itself, there can be little question the learner understands what is expected for that particular assignment. An example of a rubric that could be used to grade a reflective journal (which can be derived from any content area) appears on the following page.

A single rubric could be used multiple times throughout an activity. Rubrics that are developed with learners prior to the actual activity serve multiple purposes. They allow learners to determine what part of the learning process is important for them and they ensure that learners understand exactly what it is they are expected to accomplish. Resistance to participation and learning involvement is reduced since they were part of the design. The more the learner is involved in the design of the learning activity, the more motivated they will be.

Reflective Journal Rubric Marking Sheet

20 Possible Marks

Name: _____

Category	4 Above Standards	3 Meets Standards	2 Approaching Standards	1 Below Standards	Score
Focus on Topic (Content)	There is one clear, well-focused topic. Main idea stands out and is supported by detailed information.	Main idea is clear but the supporting information is general.	Main idea is somewhat clear but there is a need for more supporting information.	The main idea is not clear. There is a seemingly random collection of information.	
Support for Topic (Content)	Relevant, telling, quality details give the reader important information that goes beyond the obvious or predictable.	Supporting details and information are relevant, but one key issue or portion of the storyline is unsupported.	Supporting details and information are relevant, but several key issues or portions of the storyline are unsupported.	Supporting details and information are typically unclear or not related to the topic.	
Transitions (Organization)	A variety of thoughtful transitions are used. They clearly show how ideas are connected.	Transitions clearly show how ideas are connected, but there is little variety.	Some transitions work well; but connections between other ideas are fuzzy.	The transitions between ideas are unclear or non-existent.	
Sentence Structure (Sentence Fluency)	All sentences are well-constructed with varied structure.	Most sentences are well-constructed with varied structure.	Most sentences are well-constructed but have a similar structure.	Sentences lack structure and appear incomplete or rambling.	
Capitalization & Punctuation (Conventions)	Writer makes no errors in capitalization or punctuation, so the paper is exceptionally easy to read.	Writer makes 1 or 2 errors in capitalization or punctuation, but the paper is still easy to read.	Writer makes a few errors in capitalization and/or punctuation that catch the reader's attention and interrupt the flow.	Writer makes several errors in capitalization and/or punctuation that catch the reader's attention and greatly interrupt the flow.	

*Created with the aid of Rubistar: <http://rubistar.4teachers.org/index.php>

**It is important to note that this is only an example of a rubric for an “end product”. Instructors are encouraged to develop the general categories and specific performance conditions with individual classes/learners. (Refer to the general Components of a Rubric chart on the preceding page for a guide to use to assist in creating rubrics with learners.)

2. Rating Scales

A rating scale is based on numbers or descriptive words and phrases that indicate performance levels. Qualities of a performance are described (e.g. excellent, average, below expectations) in order to name a level of achievement. A rating scale is usually used with rubrics and self-assessment checklists. Because a rating scale will probably be used while in class, it should be easy to use. Learners can self-assess, be assessed by peers, or be assessed by the instructor.

Rating Scale Samples

a) Co-operative Group Learning Rating Scale

Co-operative Group Learning Rating Scale				
Name: _____		Date: _____		
	Never	Seldom	Often	Always
1. The learner works with a wide variety of peers.	1	2	3	4
2. The learner willingly shares ideas and materials with others.	1	2	3	4
3. In a group, learner shows respect for others by listening actively.	1	2	3	4
4. The learner follows group work rules.	1	2	3	4
5. The learner fulfils his/her work responsibilities in the group.	1	2	3	4
6. The learner exhibits appropriate work behaviours during work time.	1	2	3	4
7. The learner participates in discussions during appropriate times.	1	2	3	4
8. The learner contributes ideas to the group's efforts.	1	2	3	4
9. The learner meets the time deadline for work completion.	1	2	3	4
Total Rating: _____ / 36				

(Adapted from *Student Evaluation: A Teacher Handbook*, Saskatchewan Education, 1991, p. 85)

b) Individual Assessment of Group Performance Rating Scale

(To Be Completed by Learner)

Name: _____

Date: _____

Group Members: 1. _____

2. _____

3. _____

4. _____

Descriptor	Weak	Satisfactory	Very Good	Exceptional
1. All members participated equally in the group's tasks.	1	2	3	4
2. Members listened respectfully to others in the group.	1	2	3	4
3. Members helped and encouraged others in the group.	1	2	3	4
4. Group members used successful problem solving approaches to complete the tasks.	1	2	3	4
5. Group members stayed on task.	1	2	3	4
6. Group members used appropriate language and expression.	1	2	3	4
7. Group members were able to resolve disagreements.	1	2	3	4
8. Our group was able to meet the objectives set out in the group activity.	1	2	3	4
Total Rating: _____ / 40				
A. What I learned in this group activity was:				
B. Our group could do better next time if it:				

(Adapted from *Student Evaluation: A Teacher Handbook*, Saskatchewan Education, 1991, p. 85)

c) Reflective Journal Rating Scale

Name: _____		Number of Reflections: _____				
Evaluation Period:	From: _____	To: _____				
Reflections are Recorded in Journal:		Regularly	Often	Sometimes	Rarely	Never
Scale:		1 = weak	2 = fair	3 = acceptable	4 = good	5 = excellent
Reflections are Full and Complete:		1	2	3	4	5
Reflections Demonstrate:						
• close attention to the activity:		1	2	3	4	5
• personal connections made with the content:		1	2	3	4	5
• significant issues, themes, or concerns are explored		1	2	3	4	5
• willingness to respond to a range of styles and forms of communication:		1	2	3	4	5
• insightful and thoughtful extension of the content:		1	2	3	4	5
What has been learned from reflections has been applied to subsequent activities		1	2	3	4	5
Overall Rating of Reflective Journal:		1	2	3	4	5
Total Rating: _____ /40						
Comments:						

(Adapted from *Creative Writing 20: A Curriculum Guide for the Secondary Level*, Saskatchewan Education, 1998, p. 33)

d) Portfolio Rating Scale**Name:** _____ **Date:** _____

Type of Assessment: Continuous End of Project End of Module End of Term

Rating Scale: 5 - Excellent 4 - Very Good 3 - Good 2 - Fair 1 - Poor

Criteria	Rating	Comments
Learner selected appropriate materials.		
Portfolio shows evidence learner understands learning outcomes.		
Portfolio shows evidence of learner's pride in own work and commitment to learning.		
Portfolio shows evidence the learner completed the activities.		
Portfolio showed evidence the learner understands the process of developing and organizing ideas.		
Total Rating	/25	

(Adapted from *Creative Writing 20: A Curriculum Guide for the Secondary Level*, Saskatchewan Education, 1998, p. 40)

3. Logs

One way to assess the learning outcomes is through a variety of different types of logs that document learning activities. Logs can be kept for specific purposes or to raise awareness of the variety of reading, writing, speaking, and listening tasks involved in daily life. The length of time that they are maintained varies according to their purpose, and they can be used in conjunction with reflective journals or with portfolios.

A reading log could include self-reports to record what is read at school, home, at work or in the community. Reading could include newspapers, magazines, books, manuals, Internet articles, and so on. “The frequency of reading practices, such as document, book, newspaper, or magazine reading, is positively associated with literacy ability” (Smith, 1995; Sheehan-Holt & Smith, 2000 as cited in Kruidenier, 2002, p. 131).

A learning log can be used to record various types of learning strategies: they also help learners to develop their metacognitive awareness.

Math Log

What was I doing?	What types of math skills was I using?	Why was I doing it?	What strategies did I use?	How much time did I spend?
Paying monthly bills.	Adding and subtracting.	To make sure I had enough money to cover all the bills.	I used a calculator to add up all the bills and checked to see if it was less than PTA.	About 15 minutes
Cooking	Multiplying and converting fractions.	To double a recipe.	Converting fractions, reducing fractions, making equivalent fractions.	5 minutes
Helping my son with homework.	Adding polynomials.	So my son would understand and get his work done for class.	I lined up apples and containers of applesauce and had him tell me how much there was or each. I explained how like terms work the same way.	45 minutes

4. Checklists

Checklists are frequently used to assist learners in “staying on track” or in planning and attending to the requirements of the assignment. They can also be used as self-assessment tools.

Checklist Example: Learner Self-Assessment Checklist for Co-operative Learning

(Omit any statements that do not apply to your task)

Name: _____

Date: _____

My Task: _____

_____ I followed the instructions of the assignment.

_____ I met the deadline we agreed upon.

_____ I knew what my role in the group was and I stayed on task.

_____ I spoke so others could understand me.

_____ I spoke to express my feelings, thoughts, and opinions in a respectful manner.

_____ I used effective volume, expression, and pace when it was my turn to speak.

_____ I was aware of my body language, eye contact, and language when I interacted with others.

_____ I listened to show respect for others' feelings, thoughts, and opinions.

_____ I responded to information that I heard in a respectful and meaningful way.

_____ I recognized good ideas.

_____ I encouraged others in my group (no put-downs).

_____ I contributed my best ideas and behaviours to the group.

_____ I used the text to support my ideas and opinions.

_____ I only expressed opinions that were directly relevant to our task.

_____ I know what I can work on to improve for the next group-work task.

_____ I know I can ask for help or where to look for help if I need to next time.

5. Learner Self-Assessment

Self-evaluation is defined as students judging the quality of their work, based on evidence and explicit criteria, for the purpose of doing better work in the future. When we teach students how to assess their own progress, and when they do so against known and challenging quality standards, we find that there is a lot to gain. Self-evaluation is a potentially powerful technique because of its impact on student performance through enhanced self-efficacy and increased intrinsic motivation... perhaps just as important, students like to evaluate their work. (Rolheiser & Ross, 1999, ¶ 3)

One of the best ways to help learners understand the nature of the learning tasks involved in a classroom is to involve them directly in the evaluation of their work. Instructors may be concerned that learners will grade themselves more easily than the instructor will, but Boud (1995) suggests that these concerns are generally not an issue and are typically over exaggerated by instructors.

There are numerous tools instructors can use to encourage self-assessment. Rubrics, checklists, and reflective journaling are only a few that are mentioned in this guide. Instructors should remember that learners who are involved in the development of assessment tools invariably understand the nature of the learning tasks involved and are better judges of their own progress. Increased involvement in developing learning tasks and assessments translates into increased motivation, comprehensive understanding of the nature of the learning tasks involved, as well as increased self-awareness of his learning styles. Learners who self-assess their work are preparing themselves for learning that will occur throughout their lives in a variety of contexts.

Adult learning environments are safe and supportive places for learners to practise the skills necessary to make accurate self-judgments and assessments. Combining the expert guidance of the instructor with the learner's developing self-knowledge is an excellent way to assess learner progress in the integrated classroom.

I think I kind of figured out what the goal is behind this whole self assessment thing ... The whole goal is to become a self-directed learner, to become responsible for your own education because we are not always going to have the opportunity to be here and to be guided by a teacher and to lean on a teacher. You have to be able to have an accurate idea of where you are and how you are doing, especially when you take in new information or new areas and you don't have these people as resources anymore. It's very difficult to get all this knowledge and keep going unless you are able to figure out how it is that you are doing – and that takes practice to get accurate and realistic. (Alverno College Faculty, 1994, as cited by Loacker, 2004, ¶13)

6. Journaling

Journals are an effective way for learners to write about and reflect on topics that are important to them. A journal can be a place where learners voice ideas, concerns, and opinions. If the journal is shared with the instructor, he can gain insight into the knowledge and attitudes of the learner. Journaling may also be a way for instructors and learners develop rapport. Instructors may decide to assess journals several different ways, although journals need not be assessed. A grade can be given for completion, participation, and reflection and not for content, grammar and sentence structure, or instructors could decide to include all aspects of journaling in their assessment plans if learning outcomes from the various curricula are being evaluated simultaneously. There are two approaches to using journals in adult learning situations.

- Open-ended journal questions provide an opportunity for learners to give an open response. The questions are categorized for assessment of understanding as well as creative and critical thinking in the affective and cognitive domains.
- Guided journal questions are an opportunity for learners who are not comfortable with open-ended questions or if literacy levels do not allow learners to write at length. Guided questions can be used to promote writing and reflection.

Open-Ended Journal Questions Sample (to assess attitudes and behaviours)

1. What is easy for you in _____ ? [subject area]
2. When you solve problems, do you like to work alone, with a partner, or in a group?
3. What relevance does _____ [subject area] have in your life?
4. What worked for you this week? what didn't?
5. Based on what you have learned, how can you now help someone else?
6. How do you feel before a test? An exam? A presentation?
7. What grade would you give yourself right now, based on how prepared you are for class?
8. Have your feelings towards _____ [subject area] changed since you started this program?

Open-ended questions that relate specifically to individual curriculum areas can be used to assess learners understanding of concepts and their application of content skills, as well as their problem solving techniques. The following examples show how open-ended questions can be used in different subject areas.

Assessment of Concepts and Understanding (Social Sciences)

1. What values are important for Canadian society to have and uphold?
2. What personal values are important to individuals to uphold?
3. How do you feel about what you have just learned? How does what you've learned apply to your daily life?
4. In what ways does this knowledge affect what you think and what you value?
5. How might you act differently as a result of acquiring new beliefs?
6. Who benefited from imperialism? At whose expense were Colonial empires built?

Assessment of Application of Skills (Mathematics)

1. The answer to an addition problem is 431. What is the question?
2. How do you know that the square root of 53 is between 7 and 8?
3. Why is anything to the exponent zero equal to one?

Assessment of Problem Solving Skills (Life/Work Studies)

1. What is your preferred method of learning? What skills do you already possess that would assist you in your life/work/educational endeavours and goals?
2. Examine previous experiences you have had. How have these experiences shaped who you are today?
3. How have these experiences shaped your attitude toward similar situations? How do these attitudes affect your progress?

Guided Journaling Sample

Guided journal questions lead the learner through a reflective process which

- Acknowledges feelings;
- Identifies situations in which those feelings may arise;
- Helps develop thinking strategies being used or ones that could be used;
- Reflection; and
- Evaluation of ethics and principles.

The following chart provide some examples of guided questions that could be used in any subject area or learning situation.

Identifying Feelings

I am proud of myself today because I ...

When I find out I have an exam to write (or a presentation to give) I feel ...

When preparing for an exam (or presentation) I ...

When doing _____ [insert topic] I feel ...

When do I feel a particular way?

When called upon to answer a question I feel ...

I felt...when I was ...

Before an exam (or presentation), I feel ...

How I deal with my feelings

My reaction is to ... when I feel ...

If I don't know an answer I ...

If I do know an answer I ...

A reason I would miss class is ...

Strategies for dealing with feelings

One thing I learned today about how I learn is ...

Today, I changed the way I ... because ...

Today I was finally able to make progress because I ...

I need help with ... so tomorrow (or tonight, or after class), I will ...

Instead of ... I can ...

Reflection and Evaluation

I think I am becoming an expert on my topic because ...

Today I was very successful because ...

Today I was unsuccessful because ...

Today I had a problem trying to ...

Tomorrow I will try to solve that problem by ...

I used time well today because I ...

7. Portfolios

Portfolios emphasize the value of all learning, regardless of where or how the learning takes place. It is a systematic process, a way to identify and assess personal abilities, strengths, accomplishments, growth, and new learning. They are used to set life and career goals and to demonstrate skills and knowledge relevant to a specific task, activity, or academic credit. Portfolios reflect not only the experience, but also reflection on the experience, that is, what a person has learned. A portfolio is an organized collection of material that shows:

- who learners are (strengths, aptitudes, attitudes and values);
- what learners know and can do (knowledge, skills, and attitudes), regardless of where the learning took place (in the home, community, workplace or school); and
- what learners hope to do and become.

Materials collected for a portfolio are called “artefacts”: artefacts that are chosen for assessment or evaluation are called “evidence”. In deciding what to include in a portfolio, learners reflect on the meaning of each item and what it demonstrates about their learning. Portfolio artefacts can also be used to demonstrate the prior achievement of a learning outcome in any subject area or from another learning activity.

Initially, learners will develop a broad-based, foundational portfolio, which is often called a process portfolio. The foundational portfolio will include a wide range of artefacts that have meaning to the learner and may include personal reflections as well as checklists and assessments. The process portfolio is developmental and items are added on an ongoing basis. It is up to the learner how this portfolio is shared with family members, the instructor, with others in the class, or with prospective employers.

Learners select artefacts from their foundational portfolio to create the product portfolio. The product portfolio is summative and items are chosen for a specific purpose, which can be an assessment or in preparation for a job interview. The portfolio is a “lifelong tool” and not just a “school activity”. Learners can continue to add to their portfolios (further training, certificates, work experiences) as they move through learning, work, and community activities.

In an integrated adult learning environment, portfolios can be used in many different ways and can contain various demonstrations of skill development. The learner can include journal entries, responses to reading material or a film, draft copies of projects, and so on. The instructor may set parameters around what needs to be included in the portfolio based on the learning outcomes in the curriculum, but the learner selects its content. Instructors who work together to develop integrated learning experiences can determine which artefacts will be assessed in each subject area.

Portfolios can be assessed in many different ways, but learners should always be involved in the development of the criteria for assessment. The criteria are clearly

articulated, and should include any rubrics, self-assessment and/or self-reflections, and instructor's comments.

Learners will need to know the following:

- What kind of portfolio to assemble. Will it be a process portfolio, a product portfolio, or a combination of both?
- What the product portfolio will include.
- What assessment tools will be used to evaluate the portfolio (e.g. instructor assessment, learner self-assessment, and/or peer assessment).

Each artefact can be assessed by specific criteria or a checklist can be used to identify that certain artefacts are present in the portfolio. An holistic scoring process may be used to establish a final assessment of the overall impression of the learner's collection of work in a portfolio.

8. Projects

According to Datz and Chart (1989), "a project is a complex assignment that involves more than one type of activity and demonstration of a variety of skills that result in a product, performance, or event for assessment (as cited in Ananda, S., 2000, p. 11). Projects help shift the focus of learning away from instructor-centred lessons to emphasize activities that are long-term, interdisciplinary, learner-centred, and highly contextualized.

Project-based learning provides students with the opportunity to tackle real world situations that by their nature have no easy solution, or have no solution at the present time. Project-based learning helps students to understand that sometimes one needs to be satisfied with asking the right questions rather than focusing on the "right" answers. Students learn to manage their time, interpret data sets, resolve value conflicts between group members and prepare and communicate the results of their investigation. In other words, they will use their experiences to learn to manage real life situations. (Slattery, 2007, ¶ 1)

Projects can be large or small and include a range of learning outcomes and activities, but all projects involve integration of content skills from multiple subject areas or curricula. Integrated learning activities are easily expanded to form a major project where connections between multiple disciplines can be explored in depth. Trice (2000), states that "... projects often consist of higher-order objectives, which are integrative in nature" (p. 202). Instructors and learners should collaborate on the type and frequency of assessment for a project. There are a variety of assessment tools that can be used throughout the life of a project which will help learners acquire a more accurate picture of their own progress. Formative and summative assessment using self-assessments, peer assessments, checklists, rubrics, journals, and logs can all be used effectively throughout a project.

Glossary²

Constructivism: A theory of learning, that we all create knowledge. Learners construct new knowledge from their own previous knowledge. Rather than simply absorbing ideas transmitted to them by instructors through endless rote practice, learners instead create knowledge by connecting new information to their own pre-existing notions and later modifying understanding in light of new data.

In a constructivist approach, learners' ideas gain in complexity, and, with support, learners begin to understand how they think and what they know about the world. Constructivism emphasizes the careful study of the processes by which learners create and develop their ideas. Educational applications, therefore, match (not challenge) learners' understandings by encouraging further growth and development of what is already known.

Contextualized Learning: An approach to learning where learners develop skills for real-world uses in real-world situations. Lessons and units of study give learners opportunities to learn in a variety of meaningful contexts. This approach facilitates the transfer of knowledge to new contexts.

Diagnostic assessment: An in-depth process to identify special needs or areas where a learner has particular difficulty; usually uses both formative and summative components (Ashlock, 2002).

Dialectic: Learners explore the contradiction between two conflicting forces or ideas. The conflict is viewed as the determining factor in their continuing interaction. Learners exercise critical thinking and analytical skills to investigate two or more perspectives of a given issue. The idea here isn't to come to a "truth" necessarily, but to explore the complexities of multiple viewpoints. The goal is for learners who do arrive at a position through this process, to be able to cite reasons for why they agree with a particular position.

Formative Assessment: An ongoing process of assessment that occurs before the completion of an instructional event. This form of assessment is normally used to plan and modify instruction during the course of learning (Ashlock, 2002).

Holistic: The concept of holism refers to the idea that all the properties of a given system in any field of study cannot be determined or explained by the sum of its component parts. Instead, the system as a whole determines how its parts behave. A holistic way of thinking tries to encompass and integrate multiple layers of meaning and experience rather than defining human possibilities narrowly.

² Many of these definitions can also be found in each ABE Level Three Curriculum Guide (Part One: Curriculum Foundations)

Integration: Integration is about wholeness. Learners combine new information with what they have already learned in other ways and in other contexts. For example, communications skills are integrated with other skills as learners participate in language activities in all subject areas. Integration also refers to the mixing of the different kinds of learners who participate in groups. Integrating learners with a variety of abilities promotes peer tutoring.

Metacognition: Metacognition is recognition on the part of the learner that learning has taken place, or is taking place. It involves understanding and appreciating the factors that make learning possible and one's own strategies and processes of learning.

Metacognition is the process of thinking about thinking. Flavell (1997) describes it as follows: "Metacognition refers to one's knowledge concerning one's own cognitive processes and anything relating to them" (p. 232). Metacognition involves the active monitoring and regulation of cognitive processes. Metacognitive processes are central to planning, problem solving, evaluation, and many aspects of learning.

Multidisciplinary approach: Content from a variety of subject areas is included to enhance relevance. For example, if the theme "low-budget cooking" is used by a particular group of learners in a Communications class, the instructor who uses a multidisciplinary approach will ensure crossover from other subject areas. In this case, the Communications instructor will include lessons that involve concepts traditionally reserved for math, science, or life skills courses. This may include banking knowledge, estimating and calculating costs of meals, understanding bacteria growth and connecting nutrition with success. Taking a multidisciplinary approach represents a way for instructors to focus on and to respond to the holistic dynamics adult learners bring to school.

Summative Assessment: Assessment that is carried out at the end of a period of time and is intended to document a learner's progress or a programs' accomplishments (Ashlock, 2002).

Transaction: One of the three orientations of curriculum – transaction reflects the practical aspects of teaching. Miller and Seller (1990) describe a transaction philosophy as one where learners make connections between their own prior knowledge to that of new instruction being presented. Intellectual growth is encouraged through problem solving activities and group-work collaboration. A transaction orientation of curriculum is achieved when the power is shifted to the learner, and the instructor assumes the role of facilitator.

Transformation: One of the three orientations of curriculum – transformation focuses on personal and social change where learning takes on a more critical, multi-dimensional view of society. Miller and Seller (1990) identify assumptions of transformation that include realization of positive inner potential, self-directed learning abilities, need for a value system, importance of developing a positive self-concept, interrelated cognitive and affective developmental levels, teachers as facilitators, validity

of learner concerns and the importance of self-assessment. Central to all these is the focus on social change that results as learners become critically conscious of their positioning.

Transmission: A traditional approach to teaching that focuses on the technical nature of curriculum delivery. Learners are viewed as passive vessels and the instructor is responsible for transmitting as much knowledge as possible to the learner. This method of instruction includes programmed learning by structured teaching approaches.

References

- Aitken, N. & Pungur, L. (2005). *Authentic assessment*. Alberta: University of Alberta: Retrieved February 25, 2008, from http://education.alberta.ca/apps/aisi/literature/pdfs/Authentic_Assessment_UofAb_UofL.pdf
- Alberta Education (2007). *Primary programs framework for teaching and learning*. Alberta, Canada: Author.
- Alleman, J. & Brophy, J. (1993). Is curriculum integration a boon or a threat to social studies? *Social Education*, 57 (6), 287-291.
- Ananda, S. (2000). *Equipped for the future assessment report: How instructors can support adult learners through performance-based assessment*. Retrieved February 28, 2008, from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/16/5f/58.pdf
- Ashlock, R. (2002). An overview: Major changes and current issues concerning assessment in mathematics education. *Focus on Learning Problems in Mathematics*, 24 (3), 13-16.
- Beane, J. A. (1996). On the shoulders of giants! The case for curriculum integration. *Middle School Journal*, 28 (1), 6-11.
- Beane, J. A. (1997). *Curriculum integration: Designing the core of democratic education*. New York and London: Teachers College Press, Columbia University.
- Boud, D. (1995). *Enhancing learning through self assessment*. London, UK: Kogan Page.
- Brown, D. F. (2006). It's the curriculum, stupid: There's something wrong with it. *Phi Delta Kappan*, 87(10), 777-784.
- Flavell, J.H. (1977). *Cognitive development*. Englewood Cliffs, CA: Prentice-Hall.
- Fogarty, R. (1991). *The mindful school: How to integrate the curricula*. Palatine, Illinois: Skylight Publishing.
- Fogarty, R. & Stoehr, J. (1995). *Integrating curricula with multiple intelligences*. Palatine, Illinois: Skylight Publishing.
- Goldston, M. J. (2004). *Exploring the natural connections: Stepping up to science and math*. Arlington, Virginia: National Science Teachers Association Press.

- Government of Saskatchewan (1991). *Student evaluation: A teacher handbook*. Regina, SK: Author.
- Hiemstra, R. (2002). *Lifelong learning: An exploration of adult and continuing education within a setting of lifelong learning needs*. (3rd ed.) Retrieved February 6, 2008, from <http://www-distance.syr.edu/III.html>
- Hinde, E. R. (2005). Revisiting curriculum integration: A fresh look at an old idea. *The Social Studies*, 96(3), 105-111
- Humphreys, A., Post, T., & Ellis, A. (1981). *Interdisciplinary methods: A thematic approach*. Santa Monica, CA: Goodyear Publishing Company.
- Jacobs, H. H. (1989). *Interdisciplinary Curriculum: Design and Implementation*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Kruidenier, J. (2002). Literacy assessment in Adult Basic Education. In *The Annual Review of Adult Learning and Literacy 2002* (3), 85-151.
- Lake, K. (1994). *Integrated curriculum*. Retrieved February 4, 2008, from <http://www.nwrel.org/scpd/sirs/8/c016.html>
- Lederman, N. G., & Niess, M. L. (1997). Integrated, interdisciplinary, or thematic instruction? Is this a question or is it questionable semantics? *School Science and Mathematics*, 97 (2), 57-58.
- Loacker, G. (2003-2004). Taking self assessment seriously. *Essays on Teaching Excellence: Towards the Best in the Academy*. 15, (2). Retrieved March 19, 2008 from <http://www.mcmaster.ca/cdl/pod/volume15/tevol15n2.htm>
- Merickel, M. L. (1998). *Integration of the disciplines: Ten methodologies for integration*. Retrieved February 4, 2008, from <http://oregonstate.edu/instruction/ed555/zone3/tenways.htm>
- Miller, J.P. & Seller, W. (1990). *Curriculum perspectives and practice*. Toronto, ON: Copp-Clark.
- Rolheiser, C. & Ross, J. A. (1999). *Student self-evaluation: What research says and what practice shows*. Center for Development and Learning. Retrieved March 19, 2008 from http://www.cdl.org/resource-library/articles/self_eval.php?type=subject&id=4
- Rover, D. T. (2007). Integrative learning. *Journal of Engineering Education*, 96(3), 275-277.

- Saskatchewan Education. (1991). *Student evaluation: A teacher handbook*. Regina, SK: Author.
- Saskatchewan Education. (1998). *Creative writing 20: A curriculum guide for the secondary level*. Retrieved March 18, 2008, from <http://www.sasklearning.gov.sk.ca/docs/cw20/assess.html>
- Slattery, W. (2007). *Assessment*. Retrieved March 18, 2008, from <http://serc.carleton.edu/introgeo/assessment/project.html>
- Tchudi, S. & Lafer, S. (1996). *The interdisciplinary teacher's handbook: Integrated teaching across the curriculum*. Portsmouth, NH: Boynton/Cook Publishers.
- Trice, A. D. (2000). *A handbook of classroom assessment*. New York: Prentice Hall.
- Venville, G. J., & Dawson, V. M. (2004). *The art of teaching primary science*. Australia: Allen & Unwin Publishers.
- Venville, G. J., Wallace, J., Rennie, L. J., & Malone, J. A. (2001). *Curriculum integration: Eroding the high ground of science as a school subject?* Retrieved February 5, 2008, from <http://www.aare.edu.au/01pap/ven01542.htm>

Appendix A

Technological Literacy: Computer Skills and Knowledge Checklist

Technological Literacy: Computer Skills and Knowledge Checklist

Technological literacy skills – in particular, computer skills – have become a necessity in today's society, regardless of an adult's personal or career goals. Computers are present in educational settings, in the work place, in the home, and in the community.

Technological Literacy is recognized in the Adult Basic Education redesign process through inclusion as one of the Generic Skills. Generic Skills are those skills that are developed and applied in all courses of study.

Technological literacy includes the following sub-skills:

- Reflect upon and interpret the ways in which technology is used in the community;
- Use computers and other tools to locate, process, and manage information;
- Use technology for research, communication, and creative purposes; and
- Demonstrate what you understand about technological literacy.

The *Computer Skills and Knowledge Checklist* contains guidelines for the minimum skills expected of Level 3 learners. To the extent that hardware resources are available, instructors will use the *Checklist* as a guide to the development of basic computer skills. Based on learner goals and the capacity of the delivery organization, instruction beyond that included in the *Checklist* may be provided.

The *Checklist* was developed with the following assumptions in mind:

1. **To the extent that resources and hardware are available, the skills and knowledge identified in the checklist outline the minimum expectations of learners upon completion of Level Three.** The instructor and/or the delivery organization determine how to best structure their program to deliver and develop learners' computer skills. Some delivery organizations will need to develop a systematic way of addressing computer skills. Many delivery organizations already have an approach that makes the most sense for their learners and the organization's resources. The *Checklist* can be used to build on what already exists.

2. **Computer knowledge and skills are integrated and applied within all subjects.** Computer knowledge and skills are developed and applied in a relevant context within the framework of the existing five courses. The computer is viewed as a tool that can assist in achieving certain goals or in completing certain tasks (e.g., finding, organizing, or presenting information). Delivery organizations may prefer to provide learners with a basic introduction to computers in a group setting and then apply those skills in various subjects. Some organizations will choose to develop certain skills through assignments in the Communications course; others will choose to develop those same skills through Social Sciences activities.
3. **Learners' prior knowledge is determined** before instruction is provided. The delivery organization and/or the instructor determine the skills that the learner has already mastered and those that need to be reviewed or developed before applying them to a task.

The *Computer Skills and Knowledge Checklist* is organized into the following three broad categories:

Computers in Society – a reflection on the role of computers in one's life and in society;

Knowledge of Computers – basic functions and terminology related to computer hardware; and

Software Applications – an introduction to a variety of software that can be used to locate and manage information, and can be used for research, communication, and creative purposes.

Computer Skills and Knowledge Checklist

A. Computers in Society

	Already knows?		Instructor Notes
	Yes	No	Integrated/applied with ... (subject, activity, assignment)
Learners will: Describe a range of computer applications in society (e.g. ATMs, the Internet, computer record systems, Employment Insurance applications, income tax, food store checkouts, etc.).			
Analyse the effect of computers on their everyday lives.			
Provide examples of and discuss ethical issues involving computers in society, such as protection of privacy, security issues, copyright, plagiarism and following workplace (or school) policies with respect to computer use.			

B. Knowledge of Computers

	Already knows?		Instructor Notes
	Yes	No	Integrated/applied with ... (subject, activity, assignment)
1. Introduction to Computers			
Learners will: Identify ergonomic issues related to computer use and demonstrate operating a computer in a healthy and safe manner.			
List the basic parts of a computer system (system unit, monitor, keyboard, mouse, floppy disk drive, hard disk drive, and printer).			
Describe commonly used computer terminology and acronyms.			
Demonstrate the ability to start and shut down a computer system properly.			
Use a mouse.			
Describe the difference between hardware and software.			
Describe a diskette/CD-ROM and its care.			
Demonstrate the ability to operate a printer (power on, put on line/off line, and load paper).			

	Already knows?		Instructor Notes
	Yes	No	Integrated/applied with ... (subject, activity, assignment)
2. Keyboarding			
Learners will: Demonstrate correct keyboarding techniques.			
3. Operating System			
Learners will: Describe the basic functions and operations of an Operating System.			
Demonstrate the ability to open and close a program.			
Demonstrate the ability to correctly name and locate files.			
Demonstrate the ability to perform basic file operations using the operating system (create, copy, move, send to, delete, and rename).			

C. Software Applications

	Already knows?		Instructor Notes
	Yes	No	Integrated/Applied with ... (subject, activity, assignment)
1. Word Processing			
Learners will: Open a new word processing document.			
Format a page (margins, justification, font, bold, italics, line spacing, page numbers, etc.).			
Insert headers and footers.			
Edit a document, including cutting and pasting text.			
Use tools such as a spell/grammar check or thesaurus.			
Print a document.			
Save a document (disk, hard drive).			
Retrieve a document (disk, hard drive).			
Demonstrate the ability to use help features and tutorials.			
2. Email			
Learners will: Send and receive email messages using language, tone, and structure appropriate for the audience and the purpose.			

3. Internet			
Learners will: Define terminology related to the Internet (download, URL, WWW, search engine, web browser).			
Navigate a website to locate information.			
Conduct basic searches on the Internet/World Wide Web.			
4. Graphics and Presentations (Optional)			
Learners will: Insert/import graphics to a document.			
Prepare and deliver a presentation using the computer.			
Use spreadsheets to organize and present data and to create graphs.			
Other (Specify)			

Appendix B

Integration Planner Packages

- Connected Planner – Energy Use
- Nested Planner – Making Healthy Food Choices
- Sequenced Planner – Addictive Behaviours
- Shared Planner – Diabetes and Nutrition
- Webbed Planner – Gangs
- Threaded Planner – Balance and Change
- Threaded Planner – Aboriginal Culture
- Integrated Planner – Involuntary Migration/Displacement
- Integrated Planner Communications Focus – Leadership
- Immersed Planner – Diving

Introduction

The planners on the following pages are examples of how instructors might plan integrated learning activities. Each activity gives some of the learning outcomes which could be covered during the activity, a completed planner, some assessment suggestions, sample assessment tools, and a blank planner.

It should be remembered that integration is learner-driven, not instructor driven. In other words, learning is not something we do **to** people, but **with** people. The best place to find ideas for themes and other activities is the learners – their interests and prior knowledge will guide the planning process. The instructor is a facilitator of knowledge in an adult learning environment.

There are many other learning outcomes that can be used within each activity or project: only a few have been presented here. Others can, and should, be added to the lists. The following pages contain some suggestions for learning activities as well as for assessment and evaluation. The suggestions here are not prescriptive and the learning activities should not be used “as is”. Each learning situation is different and each group of learners is different. Activities, assessment suggestions, and topics are suggestions only, and should be adapted to suit the learners, the context, and the content.

Guidelines for developing and using assessment and evaluation tools

- Decide which learning outcomes from each subject area your activity or project will address. Share the learning outcomes with the learners. Let them know exactly what it is that is being assessed – what is it they are expected to be able to know and demonstrate.
- Use the identified learning objectives as the framework for your assessment tools. With integrated lessons and projects, such as the ones detailed in Appendix B of this guide, explore all of the Level Three curriculum guides for learning outcomes, not just those pertaining to a specific individual subject specialty. Collaborating with other instructors in your campus or institution will help everyone, as it is relatively easy to develop projects or units that address learning outcomes in multiple subject areas.
- Develop the assessment tool *with* the learners so learners will understand what they will be “marked on”. If learners are involved in the creation of the tools used to assess them, they will be more motivated and accountable.
- Consider incorporating peer and self-assessments as well as instructor marked activities. Learners are best served when they are given opportunities to articulate how they are progressing in their learning and where they are still facing challenges. This will develop skills in self-analysis as well as giving feedback to others, both of which are important generic or workplace skills.
- Remember that not all assignments need to be marked, and not all marked assignments need to be included in the final evaluation. Using rubrics, checklists, and scales, learners can check each others’ and their own work and they can reflect on the process in their journals or portfolios. Instructors should not be overwhelmed with marking and assessments.

Original Idea by
Bryan Guiboche, Michelle Hopper,
and Arlene Sanderson

Connected Planner - Energy Use

Communications

Interpret information literally.

Demonstrate knowledge and skills
acquired from community-based
reading.

Analyze through a response
journal.

Social Sciences

**Identify ways that government
affects people's daily lives.**

Know ways that citizens can
advocate for themselves and others.

Know that for every right there is a
responsibility.

Life/Work Studies

**Demonstrate management to
personal commitments and
resources.**

Demonstrate money management
and budgeting.

Explain equalization payments.

Mathematics

**Add, subtract, multiply and
divide real numbers.**

Create a rate from given or measured
values with different units.

Derive and apply unit rates.

Science

**Understand how heat can be
provided to homes.**

Understand how agencies calculate
the cost of heat.

Read and interpret a heating bill.

Adult Education Principles/

**Draw upon learner's experi-
ences as resources.**

Cultivate self-direction in learners.

Use small groups.

Learning Outcomes for Connected Planner – Energy Use

Science

Energy

- Understand how heat can be provided to homes
- Understand how agencies calculate the cost of heat.
- Read and interpret a heating bill.
- Assess the use and conservation of heat in daily life

Mathematics

Numbers and Number Sense

- Add, subtract, multiply, and divide whole numbers.
- Demonstrate how the operations are related to each other.

Algebra

- Graph real world relations on a grid. Label axes, scale units, and title.

Statistics and Probability

- Identify why and how data is collected.
- Organize data in a variety of ways.

Ratio/Rate/Proportion

- Create a rate from given or measured values with different units of measure.
- Derive and apply unit rates.
- Choose the best type of graph to represent data.
- Calculate the mean, median, and mode for a set of data.

Life/Work Studies

Emotion

- Demonstrate management of personal commitments and resource (equalization payments, money management).

Social Sciences

Systems of Governance

- Identify ways that government affects people's daily lives.
- Know that for every right there is a responsibility.

- Know ways that citizens can advocate for themselves and others through social action processes.
- Reflect on whether all peoples have equitable access to rights in Canada.

Communications

Reading

- Interpret information literally.
- Analyze through a response journal.
- Demonstrate knowledge and skills acquired from community-based reading materials.

Generic Skills

- Interpersonal teamwork
- Numeracy
- Creative and critical thinking
- Technological literacy
- Lifelong learning

Adult Education Principles

- Drawing upon learners' experiences as a resource
- Cultivating self-direction in learners

Sample Activities and Assessment for Connected Planner: Energy Use

Activities

- Analyze power bills.
- Research different forms of energy.
- Complete self-reflection regarding energy conservation.
- Test types of insulation.
- Research the standards for home building.
- Compare Energy Star products.
- Compare on and off reserve energy costs.
- Compare summer and winter energy costs.
- Compare house size and energy costs.
- Create graphs individually and in large and small groups.
- Graph energy costs for various sources of energy – electrical, propane, natural gas, and solar.
- Discover how energy companies/crown corporations determine estimates and averages for equalization payments.

Assessment Strategies

Journal	Rubric	Rating Scale
<ul style="list-style-type: none">• Reflect on personal energy use and possible methods of conservation.	<ul style="list-style-type: none">• Group participation• Research skills• Report/presentation	<ul style="list-style-type: none">• Presentation• Research• Encourage learners to rate themselves and other learners

Energy Conservation and Energy Bill Assignment ³

Background knowledge:

- Understanding ways to display data
- Collecting and interpreting data
- Factors contributing to differences in heating costs

Resources:

- Material (electronic or print) about different forms of energy and their costs
- Material (electronic or print) about energy conservation

Assignment:

- To determine the reasons for conserving energy and the best way to achieve energy savings.

Process:

In small groups, discuss the following questions and prepare a response for presentation:

- What is meant by energy consumption and energy conservation?
- What are some of the reasons why energy bills can be different between residences?
- How can you cut down on your energy bill?
- What are Energy Star products?
- Why would you want to conserve energy?
- How can you promote energy conservation to you family or friends?

Sample Activities:

1. In small groups, prepare a graph on data regarding comparison of energy costs.
2. Make a pamphlet promoting energy conservation in your home or classroom.
3. Write a letter to the band office persuading them to add insulation or weather stripping to your home or classroom.

³ (Suggested by Arlene Sanderson, Bryan Guiboche, and Michelle Hopper)

Reading Response Journal Rubric

Journals can be used in a variety of activities and across a multitude of subject/content areas. This journal could be especially well suited to be used in conjunction with a reading passage. The learner would read an article (either given by an instructor or found by the learner) and then reflect on it. The following list of criteria is just some of the general sorts of outcomes that can be looked for in journal responses, regardless of the subject area focus.

Category	4	3	2	1
Adding Personality (Voice)	The writer seems to be writing from knowledge or experience. The author has taken the ideas and made them "his own."	The writer seems to be drawing on knowledge or experience, but there is some lack of ownership of the topic.	The writer relates some of his own knowledge or experience, but it adds nothing to the discussion of the topic.	The writer has not tried to transform the information in a personal way. The ideas and the way they are expressed seem to belong to someone else.
Recognition of Reader (Voice)	The reader's questions are anticipated and answered thoroughly and completely.	The reader's questions are anticipated and answered to some extent.	The reader is left with one or two questions. More information is needed to "fill in the blanks".	The reader is left with several questions.
Support for Topic (Content)	Relevant, telling, quality details give the reader important information that goes beyond the obvious or predictable.	Supporting details and information are relevant, but one key issue or portion of the issue is unsupported.	Supporting details and information are relevant, but several key issues or portions of the issue are unsupported.	Supporting details and information are typically unclear or not related to the topic.
Focus on Topic (Content)	There is one clear, well-focused topic. Main idea stands out and is supported by detailed information.	Main idea is clear but the supporting information is general.	Main idea is somewhat clear but there is a need for more supporting information.	The main idea is not clear. There is a seemingly random collection of information and ideas.

Leading a Group Discussion: Traditional versus Contemporary Patterns of Energy Use

General activity idea

Learners could lead a class discussion surrounding patterns of energy use from a variety of perspectives. There could perhaps even be a series of discussions and perspective introduced into this topic.

The following are just a few possible topics for discussion. The possibilities are endless and it is anticipated that many other discussions could arise from examples such as these.

- Traditional uses/forms of energy used – Aboriginal uses of energy; colonial uses of energy; examine how energy consumption has evolved over time.
- Compare/contrast the sources of energy used in various cultures/countries across the world. Examine the various rates of consumption for different countries, why do northern climates have higher rates of consumption, etc?
- Renewable resources versus fossil fuels. Benefits/drawbacks?
- Green homes – there is a regular show on the Home Network Channel that takes a look at various energy efficient homes. What energy saving techniques can be observed?
- Compare/contrast personal energy usage rates with national averages. What are some energy saving strategies that would be easy/inexpensive to implement? What are some of the more costly options? How long would it take for a major energy saving improvement to “pay for itself?”
- This idea could be done with a panel of “experts” and a critical discussion surrounding media portrayals of the energy “crisis” can be conducted as well.

Presentation Rating Scale

Criteria:	Excellent (4)	Well done (3)	Emerging (2)	Needs further development (1)
Organization: Learner presents information in logical, interesting sequence which the audience can follow.	4	3	2	1
Subject Knowledge: Learner demonstrates full knowledge (more than required) by answering all class questions with explanations and elaboration.	4	3	2	1
Visual Aids: Learner's visual aids explain and reinforce the presentation.	4	3	2	1
Mechanics: Presentation has no misspellings or grammatical errors.	4	3	2	1
Eye Contact: Learner maintains eye contact with audience, seldom returning to notes.	4	3	2	1
Verbal Techniques: Learner uses a clear voice and correct, precise pronunciation of terms so that all audience members can hear presentation.	4	3	2	1
Group Work (if applicable): Works very well with others. Assumes a clear role in decision making and responsibilities.	4	3	2	1
Total				

Report Writing Rubric Sample #1 (Communications Focus)

- Research different forms of energy. Conduct research to find the theory, applications, environmental impact, and costs related to a specific energy resource. Write a 2 - 3 page report that demonstrates your findings.
- Self/peer and /or instructor-based assessments could be done using a rubric, such as the example given below. (Again, creating the specific criteria to be assessed with the learner is highly recommended.)

Category	4 Above Standards	3 Meets Standards	2 Approaching Standards	1 Below Standards	Score
Focus or Thesis Statement	The thesis statement names the topic of the report and outlines the main points to be discussed.	The thesis statement names the topic of the report.	The thesis statement outlines some or all of the main points to be discussed but does not name the topic.	The thesis statement does not name the topic AND does not preview what will be discussed.	
Sequencing	Arguments and support are provided in a logical order that makes it easy and interesting to follow the author's train of thought.	Arguments and support are provided in a fairly logical order that makes it reasonably easy to follow the author's train of thought.	A few of the support details or arguments are not in an expected or logical order, distracting the reader and making the essay seem a little confusing.	Many of the support details or arguments are not in an expected or logical order, thus distracting the reader and making the essay seem very confusing.	
Closing paragraph	The conclusion is strong and leaves the reader solidly understanding the writer's position. Effective restatement of the position statement begins the closing paragraph.	The conclusion is recognizable. The author's position is restated within the first two sentences of the closing paragraph.	The author's position is restated within the closing paragraph, but not near the beginning.	There is no conclusion - the paper just ends.	
Sources	Used more than 3 strong credible sources; sources cited in an approved thorough format.	Used at least 3 strong credible sources; sources cited in an approved thorough format.	Did not use sufficient sources; sources cited in an approved thorough format.	Used questionable sources OR did not cite sources used.	
Capitalization & Punctuation	Author makes no errors in capitalization or punctuation, so the essay is exceptionally easy to read.	Author makes 1-2 errors in capitalization or punctuation, but the essay is still easy to read.	Author makes a few errors in capitalization and/or punctuation that catch the reader's attention and interrupt the flow.	Author makes several errors in capitalization and/or punctuation that catch the reader's attention and interrupt the flow.	

Report Writing Rubric Sample #2 (Science Focus)

Using the same report writing activity, an entirely different rubric could be designed to be used as assessment tool with a different subject focus; in this case a scientific focus is used in this example.

Category	4 Above Standards	3 Meets Standards	2 Approaching Standards	1 Below Standards	Score
Diagrams & Illustrations	Diagrams and illustrations are neat, accurate and add to the reader's understanding of the topic.	Diagrams and illustrations are accurate and add to the reader's understanding of the topic.	Diagrams and illustrations are neat and accurate and sometimes add to the reader's understanding of the topic.	Diagrams and illustrations are not accurate OR do not add to the reader's understanding of the topic.	
Sequencing	Arguments and support are provided in a logical order that makes it easy and interesting to follow the author's train of thought.	Arguments and support are provided in a fairly logical order that makes it reasonably easy to follow the author's train of thought.	A few of the support details or arguments are not in an expected or logical order, distracting the reader and making the essay seem a little confusing.	Many of the support details or arguments are not in an expected or logical order, thus distracting the reader and making the essay seem very confusing.	
Accuracy	All supportive facts and statistics are reported accurately.	Almost all supportive facts and statistics are reported accurately.	Most supportive facts and statistics are reported accurately.	Most supportive facts and statistics were inaccurately reported.	
Demonstration of Content Knowledge	Scientific theory, applications, environmental impact, and costs related to a specific energy resource are clearly presented and supported by a variety of sources.	Scientific theory, applications, environmental impact, and costs related to a specific energy resource are partially presented; support for findings could be expanded.	Content knowledge in terms of scientific theory, environmental impacts, and costs of the energy source examined needs further investigation and support.	Content knowledge in terms of scientific theory, environmental impacts, and costs of the energy source examined is shallowly done and rudimentary in nature.	
Quality of Information	Information clearly relates to the main topic. It includes several supporting details and/or examples.	Information clearly relates to the main topic. It provides 1-2 supporting details and/or examples.	Information clearly relates to the main topic. No details and/or examples are given.	Information has little or nothing to do with the main topic.	
Sources	Used more than 3 strong credible sources; sources cited in an approved thorough format.	Used at least 3 strong credible sources; sources cited in an approved thorough format.	Did not use sufficient sources; sources cited in an approved thorough format.	Used questionable sources OR did not cite sources used.	

Connected Planner – Energy Use Math Learning Outcomes Checklist

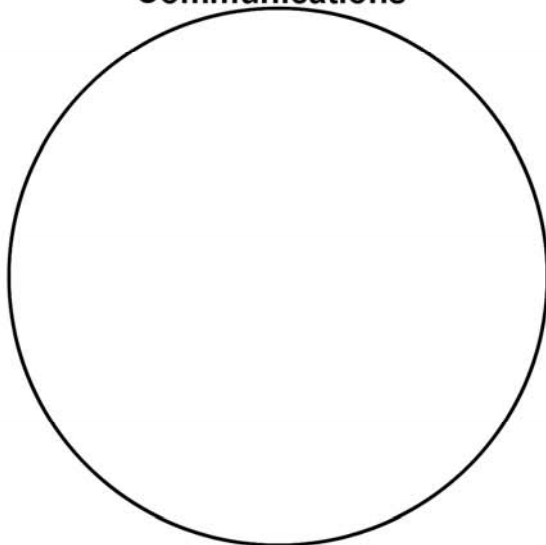
Possible activities that incorporate math in this unit/topic include:

- Analyze power bills.
- Compare Energy Star products.
- Compare on and off reserve energy costs.
- Compare summer and winter energy costs.
- Compare house size and energy costs.
- Create graphs individually and in large and small groups.
- Graph energy costs for various sources of energy (electrical, propane, natural gas, solar)
- Discover how energy companies/crown corporations determine estimates and averages for equalization payments.

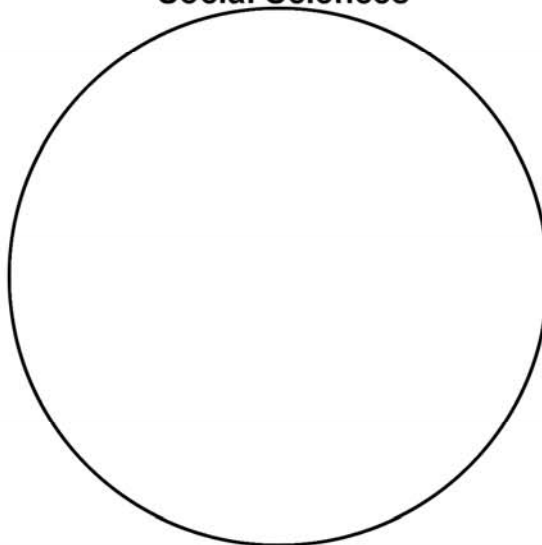
Learning Outcome	Mastered	Needs More Practice	Evaluation (optional)
Solve real world problems.			
Compare and order values of rational numbers in a variety of contexts.			
Plot points on the Cartesian plane.			
Write a set of ordered pairs from a table of values and graph on the Cartesian plane.			
Generate a table of values from a linear equation and plot as a line graph.			
Graph a real world relations on a grid. Label axes, scale units, title (y vs. x)			
Recognize per cent as a ratio comparing a value to 100.			
Use ratio, rate, proportion, and percentage to solve problems in meaningful contexts.			
Identify why and how data was collected.			
Have an awareness of biases in data collection and displays.			
Organize data in a variety of ways.			
Represent a given set of data with a: pictogram, bar graph, circle graph, line graph.			
Choose the best type of graph to represent data.			
Identify trends in a graph.			
Read information directly from a graph.			
Calculate the mean, median, and mode for a set of data.			
Add, subtract, multiply, and divide whole numbers.			
Demonstrate how number operations are related to each other.			
Create a rate from given or measured values with different units of measure.			
Derive and apply unit rates.			
Choose the best type of graph to represent data.			

Connected Planner

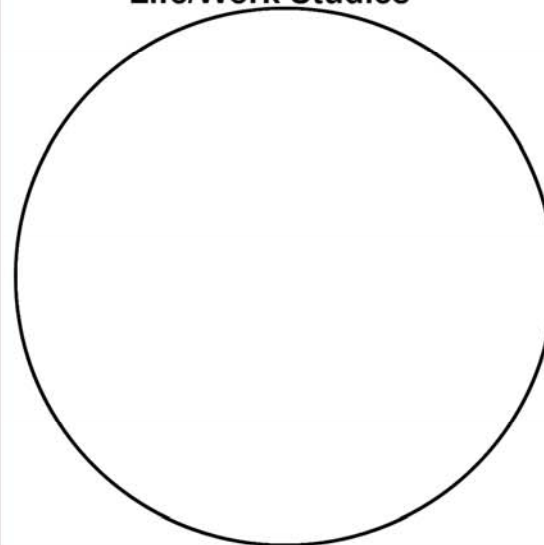
Communications



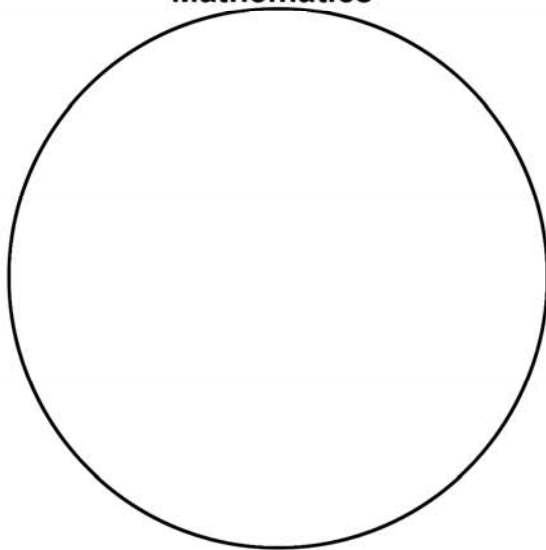
Social Sciences



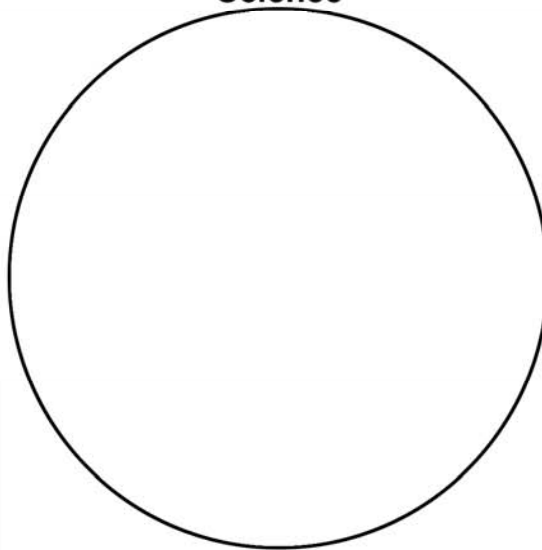
Life/Work Studies



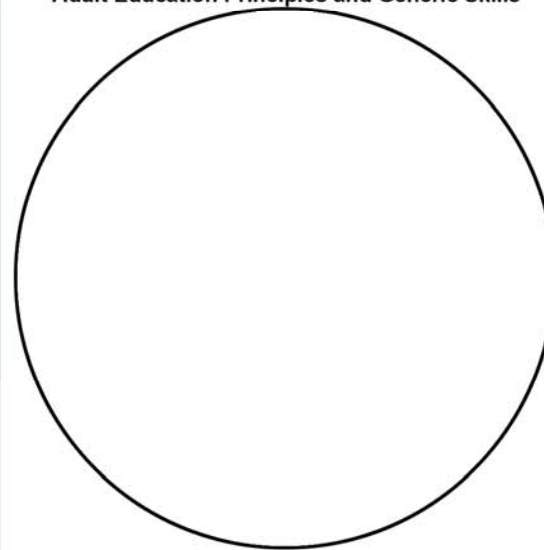
Mathematics



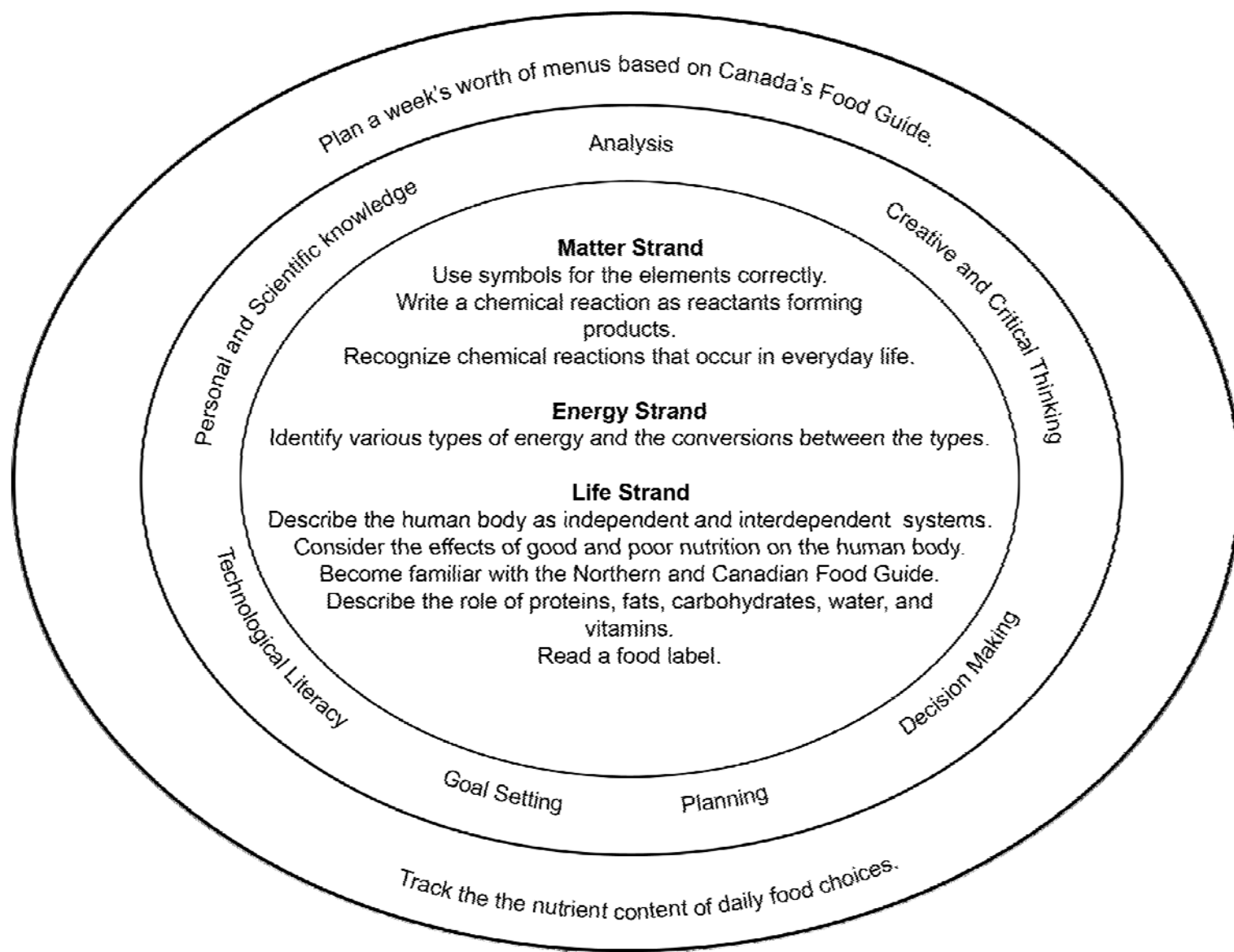
Science



Adult Education Principles and Generic Skills



Nested Planner – Making Healthy Food Choices



Learning Outcomes for Nested Planner – Making Healthy Food Choices

Science

Foundations of Scientific Literacy

- Personal knowledge
- Open-mindedness
- Choices

Unifying Concepts of Science

- Order and organization
- Patterns of change
- Technology

Interrelationships

- Explore traditional ways of knowing and Western ways of knowing in relation to the concept of interrelationships.
- Develop a methodology to come up with a possible solution.
- Initiate and/or carry out a solution plan to a problem.

Integrated Science

- Investigate or inquire about a problem or question.
- Make both quantitative and qualitative observations.
- Correlate cultural knowledge and scientific knowledge.

Matter

- Identify a chemical equation as balanced or not balanced.
- Explain the Law of Conservation of Mass.
- Recognize chemical reactions that occur in everyday life.

Energy

- Examine conversions of energy between forms.
- Assess the efficiencies of conversions of forms of energy.

Life

- Describe the human body as independent and interdependent systems. (e.g. reproductive, cardiovascular, skeletal, digestive, nervous, muscular)
- Compare different ways of maintaining health: traditional medicines, holistic medicine, naturopathic medicine, Western medicine.
- Consider the effects of good and poor nutrition on the human body.
- Become familiar with Canada's Food Guide and Canada's Food Guide: First Nations, Inuit, and Métis.
- Describe the role of proteins, fats, carbohydrates, water, vitamins, and minerals in a balanced diet.

Generic Skills

- Lifelong learning
- Numeracy
- Creative and critical thinking
- Communication

Adult Education Principles

- Drawing upon the learners' experience as a resource
- Cultivating self-direction in learners

Sample Activities and Assessment for Nested Planner – Making Healthy Food Choices

Activities:

- Keep a food journal.
- Plan and implement a weeklong menu plan that follows Canada's Food Guide or Canada's Food Guide: First Nations, Inuit, and Métis.
- Create a mini portfolio that contains artefacts and reflections:
 - Description of family roles in food preparation
 - Recipes – traditional and new
 - Labels from nutritious foods
 - Graphs or other visual representations of nutrients consumed during the week
- Compare and contrast traditional diets of various cultures or traditional diets and contemporary diets.
- Create posters, brochures, or slide shows to show nutritious menus.
- Use a budget to shop without using Canada's Food Guide and then repeat the process using the Guide. Discuss and reflect on the differences in process and results.

Assessment Strategies:

Portfolio	Self-Assessment	Project
<ul style="list-style-type: none">• Food plan• Comparison of diets	<ul style="list-style-type: none">• Checklist – changes that could be made to promote a healthy lifestyle	<ul style="list-style-type: none">• Shopping within a budget• Shopping with and without Canada's Food Guide

Nested Planner Nutrition Project

The Nested Planner format is a way of integrating units within one subject area to connect key concepts and enrich learning

Focus: social, thinking, content skills

Key Concept: Our everyday intake of foods sets in motion a scientific process of reactions/interactions and conversions of energy that have a direct bearing on our health.

Level Three Science learning outcomes to be addressed:

Matter	<ul style="list-style-type: none"> Learners will use basic principles of chemistry to interpret and explain familiar phenomena. Learners will identify common substances, their reactions, and interactions so they can use chemicals safely at home and work. 	<ul style="list-style-type: none"> Use symbols for the elements correctly (C) Write chemical reactions as reactants forming products (C) Recognize chemical reactions that occur in everyday life (LL)
Energy	<ul style="list-style-type: none"> Learners will demonstrate a working knowledge of common types of energy used in everyday life so that they can make decisions about their daily use of energy and their dependence on it. Learners will make choices and decisions about how energy production and usage affects the environment. 	<ul style="list-style-type: none"> Tell what energy is and identify various types of energy (focus on food, chemical) (C) Examine conversions of energy between forms (N) OR Assess the efficiencies of conversions of forms of energy (CCT, LL)
Life	<ul style="list-style-type: none"> Learners will understand the workings of the human body to make healthy lifestyle choices. 	<ul style="list-style-type: none"> Describe the human body as independent and interdependent systems (e.g. reproductive, cardiovascular, skeletal, digestive, nervous, muscular) (CCT) Consider the effects of good and poor nutrition on the human body (LL, CCT) Become familiar with the Northern and Canadian Food Guides (C, LL) Describe the role of proteins, fats, carbohydrates, water, vitamins, and minerals in a balanced diet. (LL)

Other Science learning outcomes addressed:

Foundations of Scientific Literacy	<ul style="list-style-type: none">• Personal knowledge• Open-mindedness• Choices
Unifying Concepts of Science	<ul style="list-style-type: none">• Order and organization• Patterns of change• Technology
Interrelationships	<ul style="list-style-type: none">• Explore traditional ways of knowing and Western ways of knowing in relation to the concept of interrelationships.• Develop a methodology to come up with a possible solution.• Initiate and/or carry out a solution plan to a problem.
Integrated Science	<ul style="list-style-type: none">• Investigate or inquire about a problem or question.• Make both quantitative and qualitative observations.• Correlate cultural knowledge and scientific knowledge.
Generic Skills	<ul style="list-style-type: none">• Communication• Lifelong learning• Numeracy• Creative and critical thinking

Project Components

Provide a few ideas for project components, and then together with the learner(s), create a portfolio that includes their suggestions with some of the following:

- Keep a food journal;
- Create PowerPoint presentation on how the body converts food into energy;
- Plan and Implement a weeklong menu plan using Canada's Food Guide: First Nations, Inuit, and Métis;
- Create a mini portfolio that contains artefacts and reflections:
 - A description of family roles in food preparation;
 - One favourite traditional family recipe;
 - Two to four recipes the family uses;
 - A collection of labels that your family has used in the week long menu plan (i.e. beans, tomato sauce if making a chili);
 - A graph representing the percentage of each of the food groups in your week-long menu; and
 - A brochure or poster that compares/contrasts traditional and modern foods for nutritional value.
- Compare/contrast traditional diets of various cultures OR compare traditional diets with contemporary diets; and
- Create a budget to go shopping for your week-long menu.

Please note: Before beginning the project, share the learning outcomes with the learners.

Food Journal

Name _____ Dates _____

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday/Sunday
Breakfast						
Snacks						
Lunch						
Snacks						
Supper						
Snacks						

It is recommended that instructors work with the learners to develop criteria for projects. The following is a list of possible topics for the project. Learners can do individual or group projects and presentations. The project should cover different areas of the Science curriculum, including matter, energy, and life. Other aspects of the Science curriculum, such as Foundations of Scientific Literacy, should also be addressed.

Criteria for PowerPoint Presentation on Food Energy

In order to understand how the body converts and uses energy from food, learners will create a PowerPoint project that includes information relating to the following questions and topics:

- What is energy?
- How do we get energy from food?
- Which foods give us the most energy?
- How do we measure this energy?
- Where does food get its energy?

Topics related directly to food and energy:

- Digestion
- Respiration
- Metabolism
- Burning
- Photosynthesis

There should be a minimum of one slide for the questions and topics.

The Power Point Presentation will be shared with the class for peer and instructor evaluation based on:

- Meeting the requirements;
- Content that is clear and adequately covers/explains the topic;
- A well organized presentation;
- Originality of thought, presentation, and graphics; and
- Presenting a PowerPoint is clear and has a flow.

Group PowerPoint Presentation Rubric

Name _____ Date _____

KNOWLEDGE: 4 3 2 1 0

- Shows an understanding of the material
- Able to answer questions

PARTICIPATION: 4 3 2 1 0

- Does their “fair share” in presenting the material
- Participates in each part of the presentation

LENGTH: 4 3 2 1 0

- Long enough to adequately cover assigned material

CONTENT: 4 3 2 1 0

- Topic covered thoroughly
- Enough information given to understand topic
- Did not exclude any important information or include any unnecessary information

DESIGN: 4 3 2 1 0

- Very creative
- Easy to see and follow
- Did not include any unnecessary graphics

HANDS-ON ACTIVITY: 4 3 2 1 0

- Included class in the learning process
- Did more than lecture to the class

_____ **TOTAL**

PowerPoint Appearance and Content: Food Energy Project

Name _____

Date _____

Mark _____/24

Source: <http://rubistar.4teachers.org>

Category	4	3	2	1
Buttons and Links Work Correctly	All buttons and links work correctly.	Most (99-90%) buttons and links work correctly	Many (89-75%) of the buttons and links work correctly.	Fewer than 75% of the buttons work correctly.
Content: Accuracy	All content throughout the presentation is accurate. There are no factual errors.	Most of the content is accurate but there is one piece of information that might be inaccurate.	The content is generally accurate, but one piece of information is clearly flawed or inaccurate.	Content is typically confusing or contains more than one factual error.
Text: Font Choice & Formatting	Font formats (e.g., colour, bold, italic) have been carefully planned to enhance readability and content.	Font formats have been carefully planned to enhance readability.	Font formatting has been carefully planned to complement the content. It may be a little hard to read.	Font formatting makes it very difficult to read the material.
Originality	Presentation shows considerable originality and inventiveness. The content and ideas are presented in a unique and interesting way.	Presentation shows some originality and inventiveness. The content and ideas are presented in an interesting way.	Presentation shows an attempt at originality and inventiveness on 1-2 screens.	Presentation is a rehash of other people's ideas and/or graphics and shows very little attempt at original thought.
Use of Graphics	All graphics are attractive (size and colour) and support the theme/content of the presentation.	A few graphics are not attractive but all support the theme/content of the presentation.	All graphics are attractive but a few do not seem to support the theme/content of the presentation.	Several graphics are unattractive and detract from the content of the presentation.
Requirements	All the topics are covered thoroughly and clearly explained	Some of the topics are covered thoroughly and clearly explained	Topics are included but some important information is omitted.	Some topics have been omitted.

Portfolios

The portfolio should contain:

- Title page stating participant name and date;
- Table of contents listing artefacts;
- Artefacts; and
- Portfolio reflection.

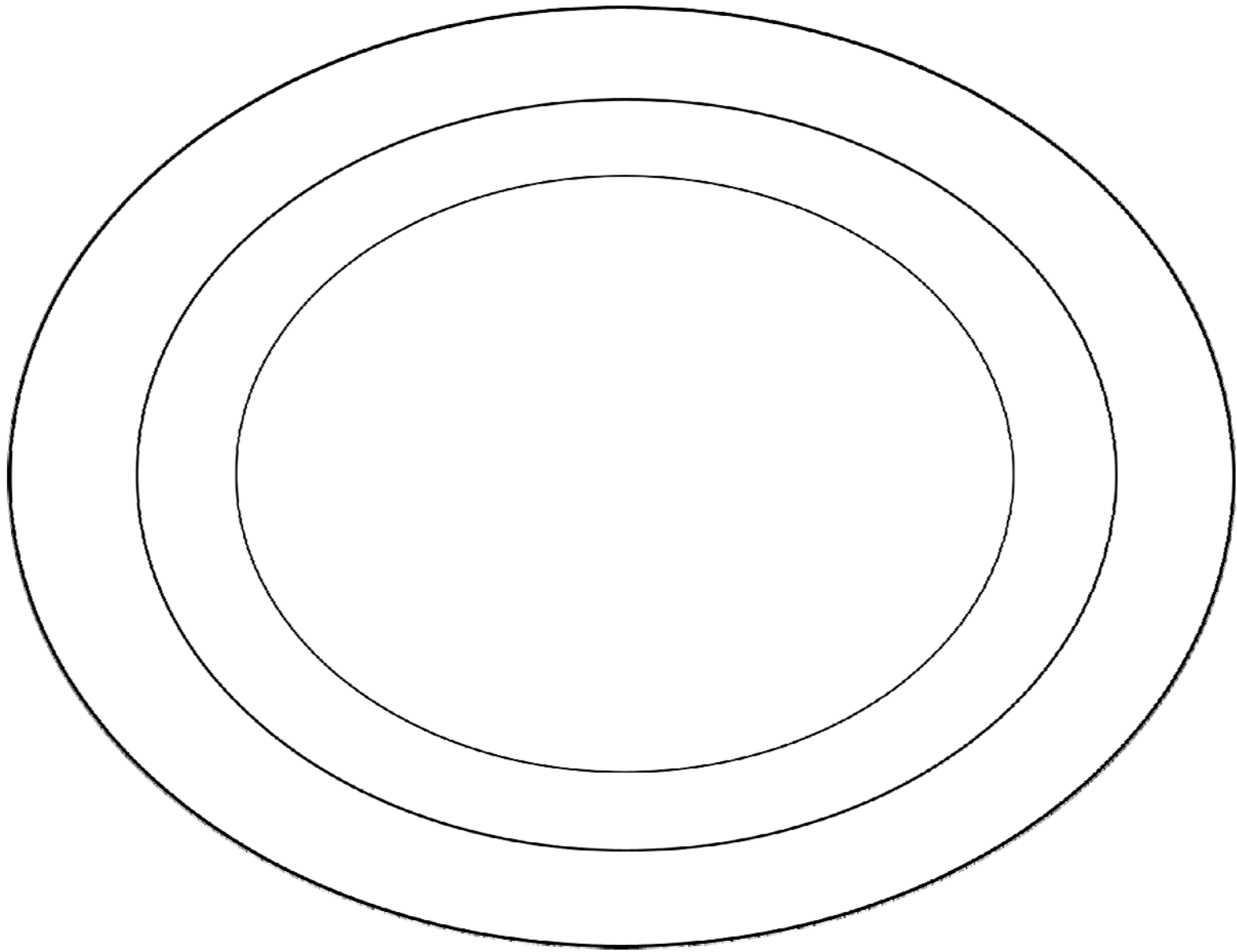
Portfolio Checklist

A good/acceptable artefact:	A poor/unacceptable artefact:
<ul style="list-style-type: none">• Is carefully selected• Addresses the standards• Is visual• Is presented clearly• Includes a reflection statement	<ul style="list-style-type: none">• Is not carefully selected• Does not address or meet the standards• Is not presented clearly• Does not include a reflection statement

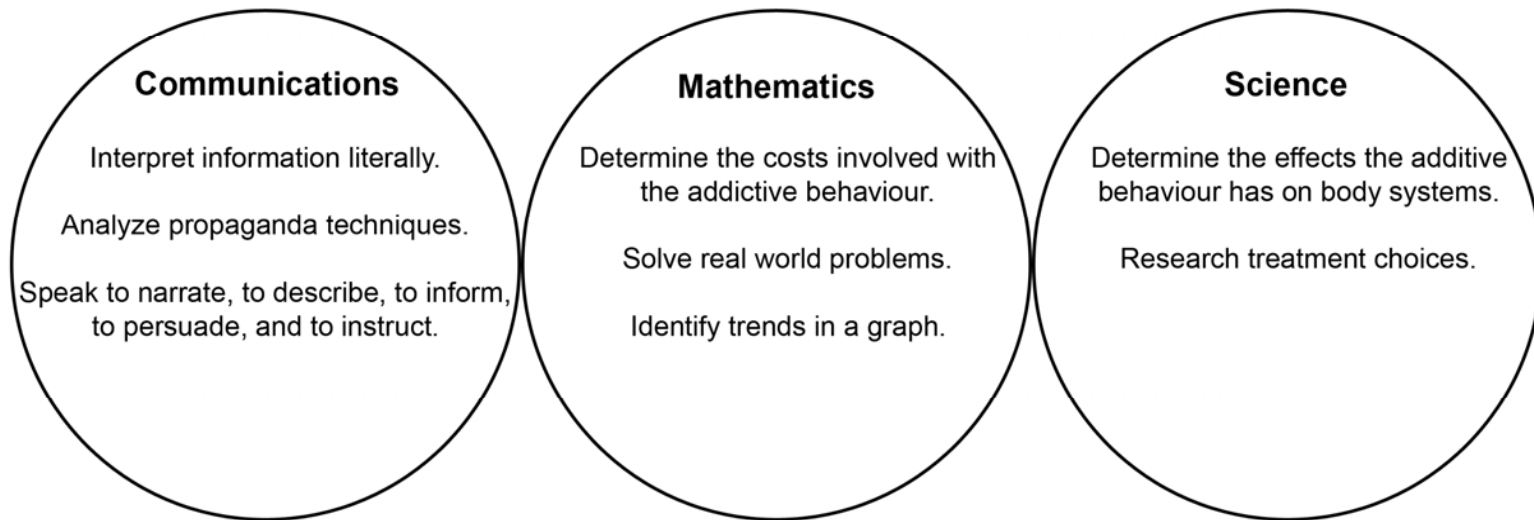
Resources

1. PowerPoint Presentation: possible rubric sites:
 - a. <http://makeworksheets.com/samples/rubrics/index.html>
 - b. www.rubistar.org
 - c. <http://www.schools.lth5.k12.il.us/aviston/KBLesson8.html>
2. Food Energy Sites
 - a. Food and energy: <http://www.learner.org/workshops/energy/workshop5/>
 - b. How chemical reactions happen:
<http://www.curriculum.org/csc/library/profiles/10/html/SNC2DP1.htm>
http://www.edhelper.com/ReadingComprehension_37_152.html
 - c. Supermarket chemical reaction (hands-on activity with foods):
http://www.csupomona.edu/~ceemast/science/supermarket_chemical_reactions.pdf
3. Canada Food Guide
 - a. <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>
 - b. First Nations, Inuit, and Métis <http://hc-sc.gc.ca/fn-an/pubs/fnim-pnim/index-eng.php>
4. Menu Planning
 - a. Health Canada: <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/using-utiliser/plan-eng.php>
 - b. Free printable meal and menu planners:
<http://www.vertex42.com/ExcelTemplates/meal-planner.html>
 - c. Recipe Search: <http://www.foodnetwork.ca/recipes/index.html?cid=Goo>
 - d. Eat Right Ontario: <http://www.eatrightontario.ca/en/menuplanner.aspx>
5. Money-saving ideas
 - a. <http://www.careonecredit.com/Knowledge/101-ways-to-save-one-dollar-a-week.html>

Nested Planner



Sequenced Planner — Addictive Behaviours



Original Idea by
Sandy Anderson,
Anna Fish, and
Carole Olson

Learning Outcomes for Sequenced Planner – Addictive Behaviours

Communications

Reading

- Interpret information literally.
- Use standard reference materials to locate information.
- Summarize and synthesize information from at least 3 or 4 different sources.

Speaking

- Speak to share thoughts, opinions, and feelings.
- Speak to narrate, to describe, to inform, to persuade, and to instruct.

Mathematics

Numbers and Number Sense

- Solve real world problems.

Statistics and Probability

- Identify why and how data is collected.
- Have an awareness of biases in data collection and displays.
- Organize data in a variety of ways.
- Identify data that has been reported in such a way as to manipulate the intended meaning and influence consumers.
- Analyze and interpret probability to make a decision.

Science

Foundations of Scientific Literacy

- Open-mindedness
- Perseverance
- Choices

Interrelationships

- Realize the impact one person has on problems and solutions.
- Identify scientific issues in his or her community, life, and work.
- Initiate and/or carry out a solution plan to a problem.

Matter

- Recognize that a chemical reaction involves reactants and products.
- Recognize chemical reactions that occur in everyday life.

Life

- Describe the human body as independent and interdependent systems. (e.g. reproductive, cardiovascular, skeletal, digestive, nervous, muscular)
- Research the factors that affect specific systems: viruses and bacteria, nutrition, smoking, drugs and alcohol, chronic and acute diseases.
- Describe some of the body's defence mechanisms. (e.g. tears, white blood cells, mucus, cilia)
- Compare different ways of maintaining health: traditional medicines, holistic medicine, naturopathic medicine, and Western medicine.

Adult Education Principles

- Drawing upon learners' experience as a resource.
- Cultivating self-direction in learners.

Generic Skills

- Communications
- Interpersonal teamwork
- Critical and creative thinking
- Valuing diversity
- Lifelong learning

Sample Activities and Assessment for Sequenced Planner – Addictive behaviours

Activities:

- Research the addictive properties of street drugs, foods, gambling, or tobacco, and present findings to other learners.
- Investigate traditional uses of tobacco.
- Create a visual representation of the statistics associated with addictions or addictive behaviours.
- Use a spreadsheet program to calculate the financial costs of addictions or addictive behaviours.
- Reflect on addictive behaviours.

Assessment Strategies:

Portfolio	Self-Assessment Checklist	Logs
<ul style="list-style-type: none">• In a process portfolio, include an artefact that represents learning from each of the subject areas. Reflect on how they connect.• In a product portfolio, include an artefact created from this learning activity to include in a portfolio used in another subject area (i.e. Life Works Studies, Communications, etc.) Reflect on the connections.	<ul style="list-style-type: none">• Oral presentations• Speaking• Completeness of the portfolio• Group participation	<ul style="list-style-type: none">• Record the information used in a presentation• Learners record addictive behaviours• Record different feelings experienced during exploration of addictive behaviours

Sequenced Planner – Addictive Behaviours Research Essay Rubric

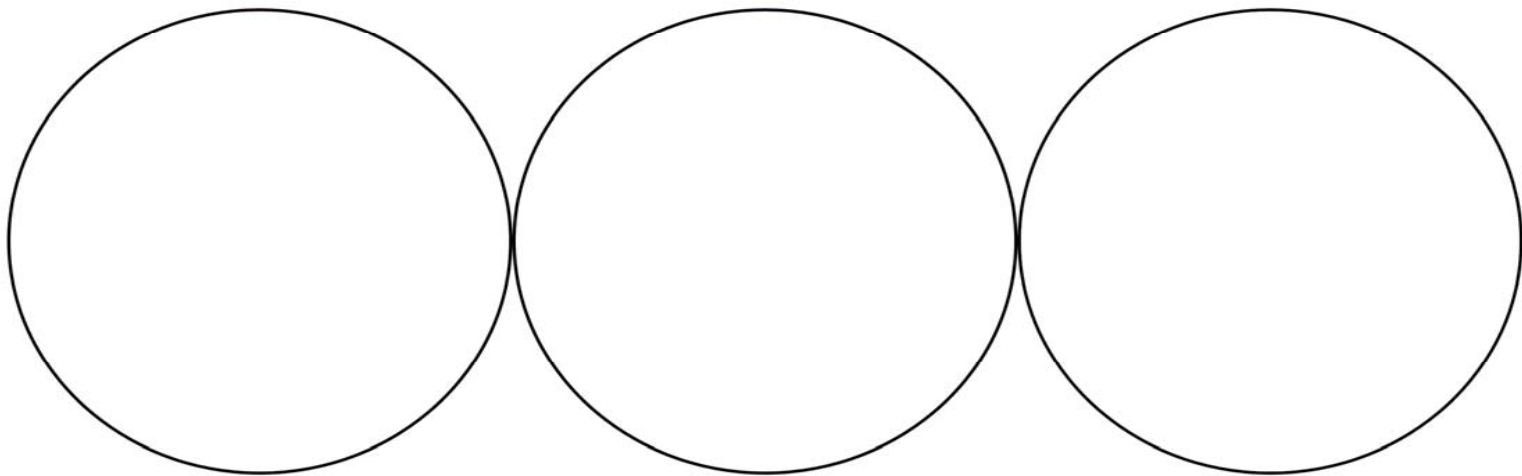
Category	5 Above Standards	4 Meets Standards	3 Approaching Standards	2 Below Standards	Score
Attention Grabber	The introductory paragraph has a strong hook or attention grabber that is appropriate for the audience. This could be a strong statement, a relevant quotation, statistic, or question addressed to the reader.	The introductory paragraph has a hook or attention grabber, but it is weak, rambling, or inappropriate for the audience.	The author has an interesting introductory paragraph but the connection to the topic is not clear.	The introductory paragraph is not interesting AND is not relevant to the topic.	
Essay Focus	The thesis statement names the topic of the essay and outlines the main points to be discussed.	The thesis statement names the topic of the essay.	The thesis statement outlines some or all of the main points to be discussed but does not name the topic.	The thesis statement does not name the topic AND does not preview what will be discussed.	
Support for Topic	Includes 3 or more pieces of evidence (facts, statistics, examples) that support the topic. The writer anticipates the reader's concerns and questions.	Includes 3 or more pieces of evidence (facts, statistics, and examples) that support the topic.	Includes 2 pieces of evidence (facts, statistics, examples) that support the topic.	Includes 1 or fewer pieces of evidence (facts, statistics, examples).	
Research	All research is specific, relevant and explanations are given that show how each piece of evidence supports the topic.	Most of the research is specific, relevant and explanations are given that show how each piece of evidence supports the topic.	At least one of the research is relevant and has an explanation that shows how that piece of evidence supports the topic.	Research is NOT relevant AND/OR is not explained.	
Accuracy	All supportive facts and statistics are reported accurately.	Almost all supportive facts and statistics are reported accurately.	Most supportive facts and statistics are reported accurately.	Most supportive facts and statistics were inaccurately reported.	

(Page 1 of 2)

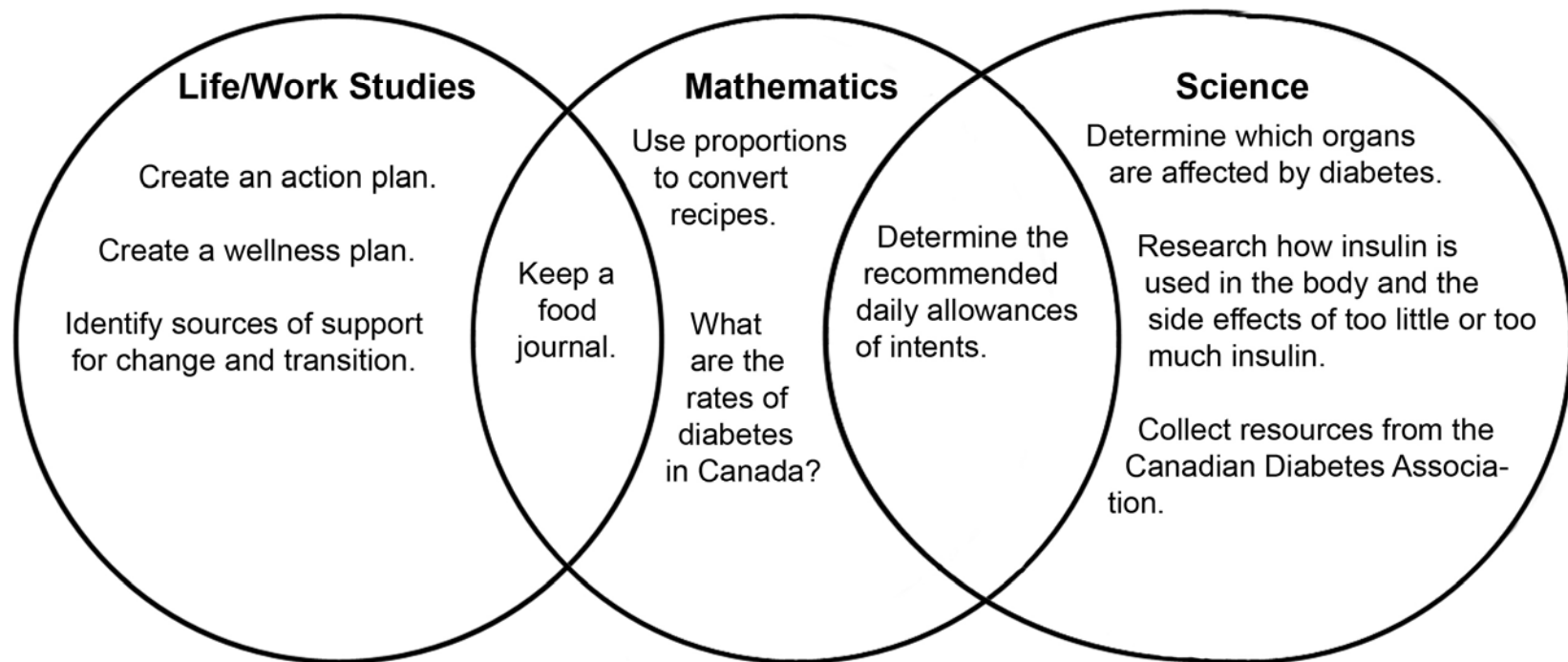
Sequencing	Research is provided in a logical order that makes it easy and interesting to follow the author's train of thought.	Research is provided in a fairly logical order that makes it reasonably easy to follow the author's train of thought.	A little of the research is not in an expected or logical order, distracting the reader and making the essay seem a little confusing.	Most of the research is not in an expected or logical order, distracting the reader and making the essay seem very confusing.	
Transitions	A variety of thoughtful transitions are used. They clearly show how ideas are connected	Transitions show how ideas are connected, but there is little variety	Some transitions work well, but some connections between ideas are fuzzy.	The transitions between ideas are unclear OR nonexistent.	
Sources	All sources used for quotes, statistics and facts are credible and cited correctly.	All sources used for quotes, statistics and facts are credible and most are cited correctly.	Most sources used for quotes, statistics and facts are credible and cited correctly.	Many sources are suspect (not credible) AND/OR are not cited correctly.	
Grammar & Spelling	Author makes no errors in grammar or spelling that distract the reader from the content.	Author makes 1-2 errors in grammar or spelling that distract the reader from the content.	Author makes 3-4 errors in grammar or spelling that distract the reader from the content.	Author makes more than 4 errors in grammar or spelling that distract the reader from the content.	
Capitalization & Punctuation	Author makes no errors in capitalization or punctuation, so the essay is exceptionally easy to read.	Author makes 1-2 errors in capitalization or punctuation, but the essay is still easy to read.	Author makes a few errors in capitalization and/or punctuation that catch the reader's attention and interrupt the flow.	Author makes several errors in capitalization and/or punctuation that catch the reader's attention and interrupt the flow.	
Comments					

(page 2 of 2)

Sequenced Planner



Shared Planner - Diabetes and Nutrition



Original Idea by
Elizabeth Conner
Elizabeth Majocha
Arlene Sanderson

Shared Planner – Diabetes and Nutrition

Life/Work Studies

Emotion

- Identify sources of support when dealing with change and transition.
- Implement a wellness plan.

Mathematics

Algebra

- Identify graphs as increasing, decreasing, and constant rates.

Ratio/Rate/Proportion

- Recognize per cent as a ratio comparing a value to 100.

Measurement

- Use appropriate measuring devices and techniques to take measurements with precision and accuracy.
- Apply algebraic or proportional reasoning to make unit conversions within the metric measurement system.

Statistics and Probability

- Read information directly from a graph.
- Identify trends in a graph.
- Calculate the mean, median, and mode for a set of data.
- Identify data that has been reported in such a way as to manipulate the intended meaning and influence consumers.

Science

Interrelationships

- Develop a methodology to come up with a possible solution.
- Initiate and/or carry out a solution plan to a problem.

Integrated Science

- Investigate or inquire about a problem or question.
- Use the metric system and SI units to measure length, liquid volume, mass, temperature, and time.

Matter

- Recognize chemical reactions that occur in everyday life.

Life

- List all the major organs of particular body systems and their primary function.
- Research the factors that affect specific systems: viruses and bacteria, nutrition, smoking, drugs and alcohol, chronic and acute diseases.
- Compare different ways of maintaining health: traditional medicines, holistic medicine, naturopathic medicine, and Western medicine.
- Consider the effects of good and poor nutrition on the human body.
- Become familiar with Canada's Food Guide and Canada's Food Guide: First Nations, Inuit, and Métis.
- Describe the role of proteins, fats, carbohydrates, water, vitamins, and minerals in a balanced diet.
- Understand the unit used to measure food energy is the calorie.
- Read a food label.

Adult Education Principles

- Involve the learners in planning and implementing learning activities.
- Drawing upon learners' experience as a resource.
- Using small groups.

Generic Skills

- Communications
- Creative and critical thinking
- Valuing diversity
- Lifelong learning

Sample Activities and Assessment for Shared Planner – Diabetes and Nutrition

Activities:

- Research the various types of diabetes and their incidence in different populations. Present the information to other learners.
- Use a food journal to record amounts, servings, and nutrients consumed in a day, week, or month.
- Implement an action or wellness plan for a healthier lifestyle.
- Create two nutritious daily or weekly “diabetic-friendly” menus that follow Canada’s Food Guide and Canada’s Food Guide: First Nations, Inuit, and Métis.
- Share a nutritious meal or snack with other learners.

Assessment Strategies:

Self-Assessment	Rating Scales	Rubric
<ul style="list-style-type: none"> • Create an Action Plan • What am I doing that I should continue doing? • What am I doing now that I should stop? • What do I need to start doing? 	<ul style="list-style-type: none"> • Small group participation • Personal wellness plan • Food journal and/or recipes • Self, peer, or instructor ratings 	<ul style="list-style-type: none"> • Presentation • Statistical representation • Communication skills • Research

Writing a Report on Diabetes (Communications Focus)

- Research the two different types of diabetes and treatments of diabetes. Write a two-page report that demonstrates your findings.
- Self/peer and /or instructor-based assessments could be done using a checklist. Creating the specific criteria to be assessed with the learner is highly recommended.

Checklist

Name _____ Date _____

Each paragraph begins with appropriate topic sentence	Yes	No
Minimum of three sentences per paragraph	Yes	No
Correct use of capital letters and punctuation	Yes	No
Use of Standard English	Yes	No
Report is typed and double spaced	Yes	No
Clear sentences	Yes	No
All requirements of the question are met	Yes	No
Report has a beginning, a middle, and an end	Yes	No
Report demonstrates thought and good understanding	Yes	No
Information is accurate	Yes	No

Communications Learning Outcomes Addressed:

Reading: recognize that reading is a process of constructing meaning between self and text:

- Interpret information literally
- Make inferences by using prior knowledge and synthesizing information
- Analyze selections to determine author's audience, purpose, bias, and/or point of view.
- Analyse propaganda techniques.

Writing: apply a variety of reading strategies:

- Use strategies to understand the meaning of words.
- Use strategies to increase comprehension.
- Use critical reading strategies.

Writing: learners will write for a variety of purposes and audiences:

- Write a multi-paragraph expository passage.
- Share, present, or publish preferred pieces with a planned audience.
- Review learning goals for writing.

Rubric for Diabetes Project (Life/Work Studies Focus)

	4	3	2	1
Identify Support Systems	Can list five community supports	Can identify three community supports	Can identify two community supports	Can identify one community support
Understand Social ramifications of having disease	Exemplary understanding	Developing understanding	Basic understanding	Little to no understanding
Understand long term emotional consequences	Exemplary understanding	Developing understanding	Basic understanding	Little to no understanding
Develop strategies for prevention of Type II diabetes	Exemplary strategies for prevention planning	Has an effective prevention plan	Several strategies for prevention planning	Few strategies for prevention planning
Develop safe handling skills for hazardous materials	Demonstrates safe handling skills	Usually demonstrates safe handling skills	Sometimes demonstrates safe handling skills	Almost never demonstrates safe handling skills

Life/Work Studies Learning Outcomes Addressed

Vision: Exploring/Defining Self

- Create a summary of circles of support.
- Create a vision and paths for the future.

Emotion: Personal Management

- Analyze the effects of change and transition

Rubric for Diabetes Project (Mathematics Focus)

	4	3	2	1
Demonstrate number sense when reading food labels	Can accurately interpret food labels	Has a little difficulty interpreting food labels	Needs to develop more skill interpreting food labels	Has a lot of difficulty interpreting food labels
Use proportions to convert recipes	Can accurately use proportions to convert recipes	Most conversions are done accurately	Some conversions are done accurately	Needs skill development in conversions
Use number sense to determine amount of carbohydrates, fats, calories in a serving from a larger portion (ie: recipe)	Calculations are done accurately resulting in correct serving size, calories, fats and carbohydrates	Calculations are done accurately in most of the serving sizes, calories, fats and carbohydrates	Some calculations are accurate	Needs to develop skill in calculation skills for serving sizes
Develop menu plan for two days using Canada's Food Guide	Plan is complete with balanced portions	Plan is complete but has unbalanced portions	Plan is somewhat complete. Difficulty with both planning and portion sizes	Plan is inadequate
Determine recommended daily allowances for youths and adults based on Canada's Food Guide	Able to accurately interpret recommended daily allowances	Has some errors in interpreting daily allowances	Developing skills in interpreting tables and charts	Needs more work interpreting tables and charts
Create graphs based on statistics as it relates to diabetes in general population and minority populations	Graph fits the data and makes it easy to interpret	Graph is adequate and does not distort the data	Graph distorts the data somewhat and interpretation of the data is somewhat difficult	Graph seriously distorts the data making interpretation almost impossible

Rubric for Diabetes Project (Science Focus)

	4	3	2	1
Understand the different types of diabetes	Can accurately list/explain the different types of diabetes	Has a basic understanding of the different types of diabetes	Has some idea of the different types of diabetes	Needs to develop and understanding of different types of diabetes
How the disease affects organs	Can accurately list/explain how different organs are affected by diabetes	Has a basic understanding of how different organs are affected by diabetes	Has some idea of how the disease affects different organs	Needs to develop and understanding of how different organs are affected by diabetes
Understand the health conditions diabetics are more susceptible	Can accurately list/explain how diabetics are more susceptible to various health conditions	Has a basic understanding of how diabetics are more susceptible to various health conditions	Has some idea of how diabetics are more susceptible to various health conditions	Needs to develop and understanding of how diabetics are more susceptible to various health conditions
Western medical treatments	Extensive/thorough of different treatments for diabetes	Can list several treatments for diabetes	Can only list a few treatments for diabetes	Can list no treatments for diabetes
Traditional/alternative treatments	Extensive/thorough of different treatments for diabetes	Can list several treatments for diabetes	Can only list a few treatments for diabetes	Can list no treatments for diabetes
Read & understand food labels	Can accurately interpret data	Has some difficulty interpreting food labels	Has a lot of difficulty interpreting food labels	Cannot interpret data on food labels
Understand glycemic index	Accurately understands what glycemic index represents	Makes a few errors in the explanation of glycemic index	Has several errors in understanding the glycemic index	Has little understanding of the glycemic index
Describe the role of a balanced diet	Can describe/explain the value of eating a balanced diet	Can describe several reasons for the importance of eating a balanced diet	Can describe a few reasons for the importance of eating a balanced diet	Has little understanding in the value of eating a balanced diet
Develop safe handling skills for hazardous materials	Demonstrates safe handling skills	Usually demonstrates safe handling skills	Sometimes demonstrates safe handling skills	Almost never demonstrates safe handling skills

Life/Work Studies Learning Outcomes Addressed

Life Strand:

- Describe the basic functions of a system of the human body
- Research the factors that affect specific systems: viruses and bacteria, nutrition, smoking, drugs and alcohol, chronic and acute diseases.
- Compare different ways of maintaining health: traditional medicines, holistic medicine, naturopathic medicine, Western medicine.
- Consider the effects of good and poor nutrition on the human body.
- Become familiar with the Northern and Canadian Food Guides.
- Describe the role of proteins, fats, carbohydrates, water, vitamins, and minerals in a balanced diet.
- Understand the unit used to measure food energy is the calorie.
- Read a food label.

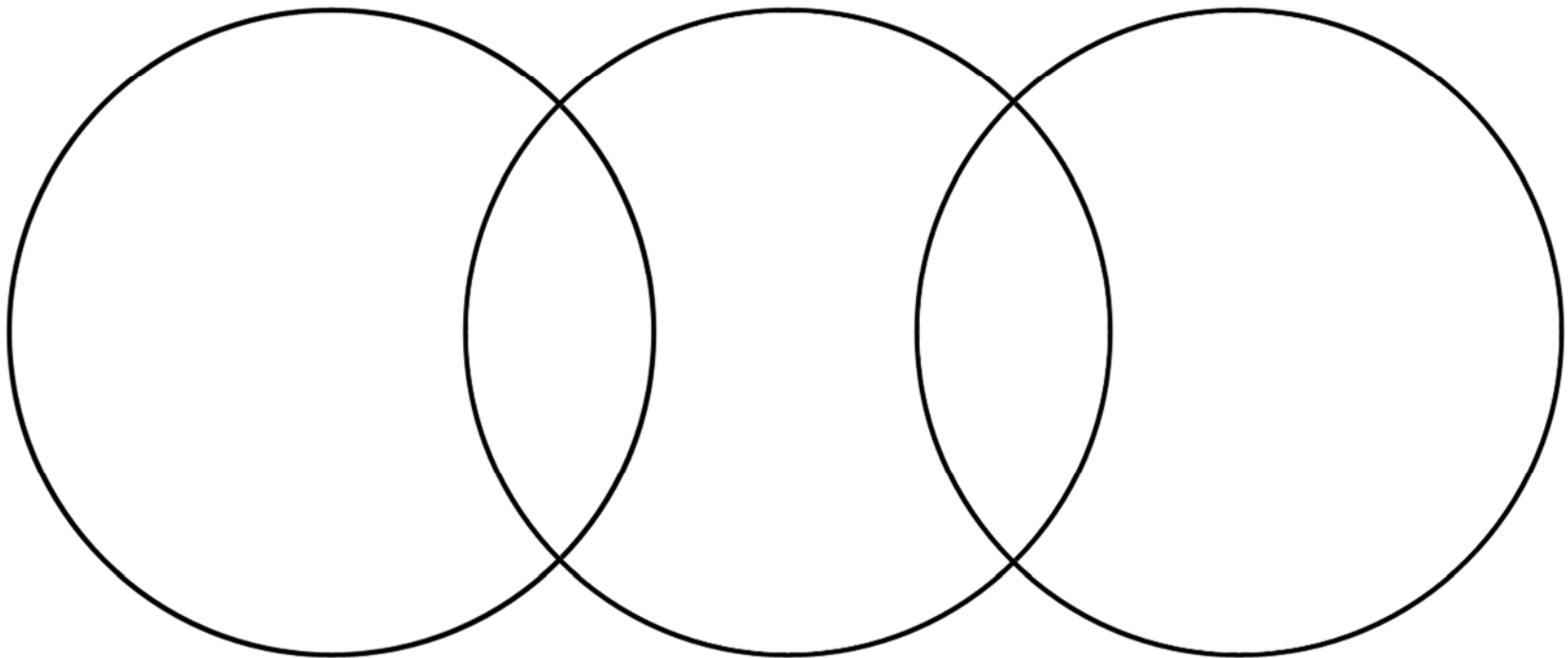
Presentation Rating Scale

Criteria:	Excellent (4)	Well done (3)	Emerging (2)	Needs further development (1)
Organization: Learner presents information in logical, interesting sequence which the audience can follow.	4	3	2	1
Subject Knowledge: Learner demonstrates full knowledge (more than required) by answering all class questions with explanations and elaboration.	4	3	2	1
Visual Aids: Learner's visual aids explain and reinforce the presentation.	4	3	2	1
Mechanics: Presentation has no misspellings or grammatical errors.	4	3	2	1
Eye Contact: Learner maintains eye contact with audience, seldom returning to notes.	4	3	2	1
Verbal Techniques: Learner uses a clear voice and correct, precise pronunciation of terms so that all audience members can hear presentation.	4	3	2	1
Group Work (if applicable): Works very well with others. Assumes a clear role in decision making and responsibilities.	4	3	2	1
Total				

Communications learning outcomes addressed – Speaking

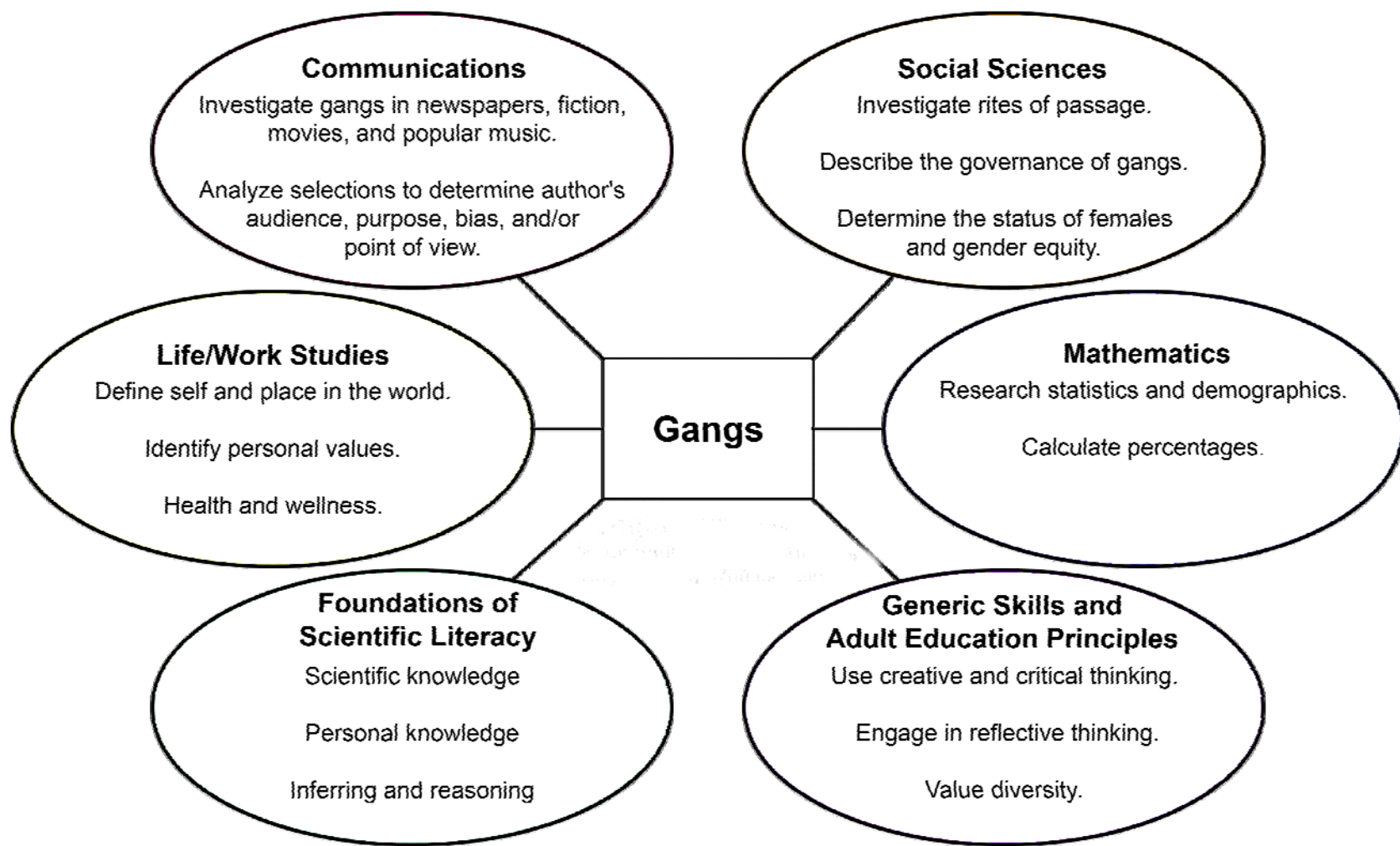
1. Learners will speak for a variety of purposes and audiences:
 - a. Identify a variety of purposes for speaking
 - b. Speak to clarify and extend thinking
 - c. Speak to express understanding
 - d. Speak to share thoughts, opinions, and feelings
2. Learners will recognize that speaking is a process as well as a tool for communicating, thinking, and learning:
 - a. Manage the discrete elements of speaking
 - b. Apply strategies to enhance comprehensibility
 - c. Set and monitor learning goals for speaking
3. Learners will practice appropriate behaviours of effective speakers and complete a variety of speaking activities:
 - a. Identify effective practices for a variety of speaking occasions
 - b. Speak to narrate, to describe, to inform, to persuade, and to instruct

Shared Planner



Original Idea by
Sandy Anderson, Larry Hrycan,
Tracy Laprise, Lynn McCalg

Webbed Planner – Gangs



Learning Outcomes for Webbed Planner – Gangs

Social Sciences

Systems of Governance

- Describe how laws are made, implemented and enforced in at least one system of governance
- Learners will analyze the concept of leadership.
- Examine their own assumptions and biases.
- Learners will analyze rights and responsibilities in Canadian democracy.

Culture and Identity

- Describe how gender, race, class, and socio-economic situation impacts on identity and self-concept.
- Analyze ways in which identity labels affect one's own identity and worldview.

Communications

Reading

- Analyze selections to determine author's audience, purpose, bias, and/or point of view.
- Analyze propaganda techniques.

Writing

- Connect prior knowledge to new information.

Listening

- Learners will recognize that listening is an active process of constructing meaning.

Life/Work Studies

Emotion

- Analyze coping skills for change and transition.

Science

Foundations of Scientific Literacy

- Personal knowledge

- Researching
- Inferring and reasoning
- Communication
- Modeling
- Choices
- Safety

Unifying Concepts of Science

- Order and organization
- Systems
- Ethics and values

Interrelationships

- Acknowledge multiple perspectives are needed in a solution.
- Develop a methodology to come up with a possible solution.
- Initiate and/or carry out a solution plan to a problem.

Mathematics

Ratio/Rate/Proportion

- Develop and use several ways in which a proportion (including units) can be applied and solved, and apply proportional reasoning in various contexts.

Statistics and Probability

- Read, understand, and analyze data in a variety of forms to evaluate and make decisions.

Adult Education Principles

- Drawing upon learners' experiences as a resource.
- Cultivating self-direction in learners.
- Using small groups.

Generic Skills

- All generic skills are covered

Sample Activities and Assessment for Webbed Planner – Gangs

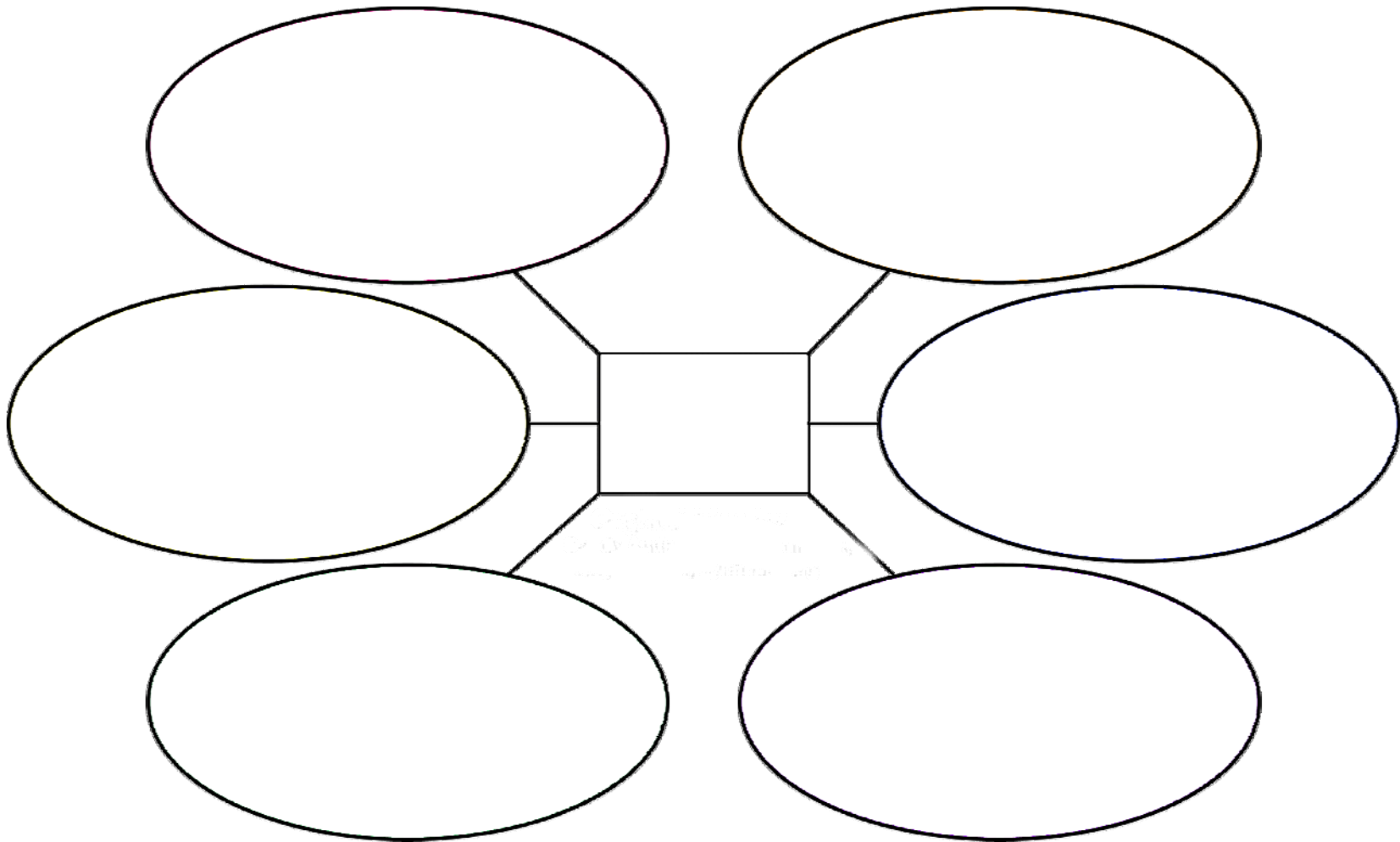
Activities:

- Do a movie study with a movie about gangs.
- Go on a graffiti walk and look for gang tags.
- Create graffiti with online generator such as <http://www.ccd.rpi.edu/Eglash/csdt/subcult/grafitti/index.html>.
- Read newspaper and magazine articles about gangs.
- Compare gang structure with other leadership models.
- Analyze why people join gangs. Present the findings to other learners.
- Analyze gangsta rap to find out what messages it delivers.

Assessment Strategies:

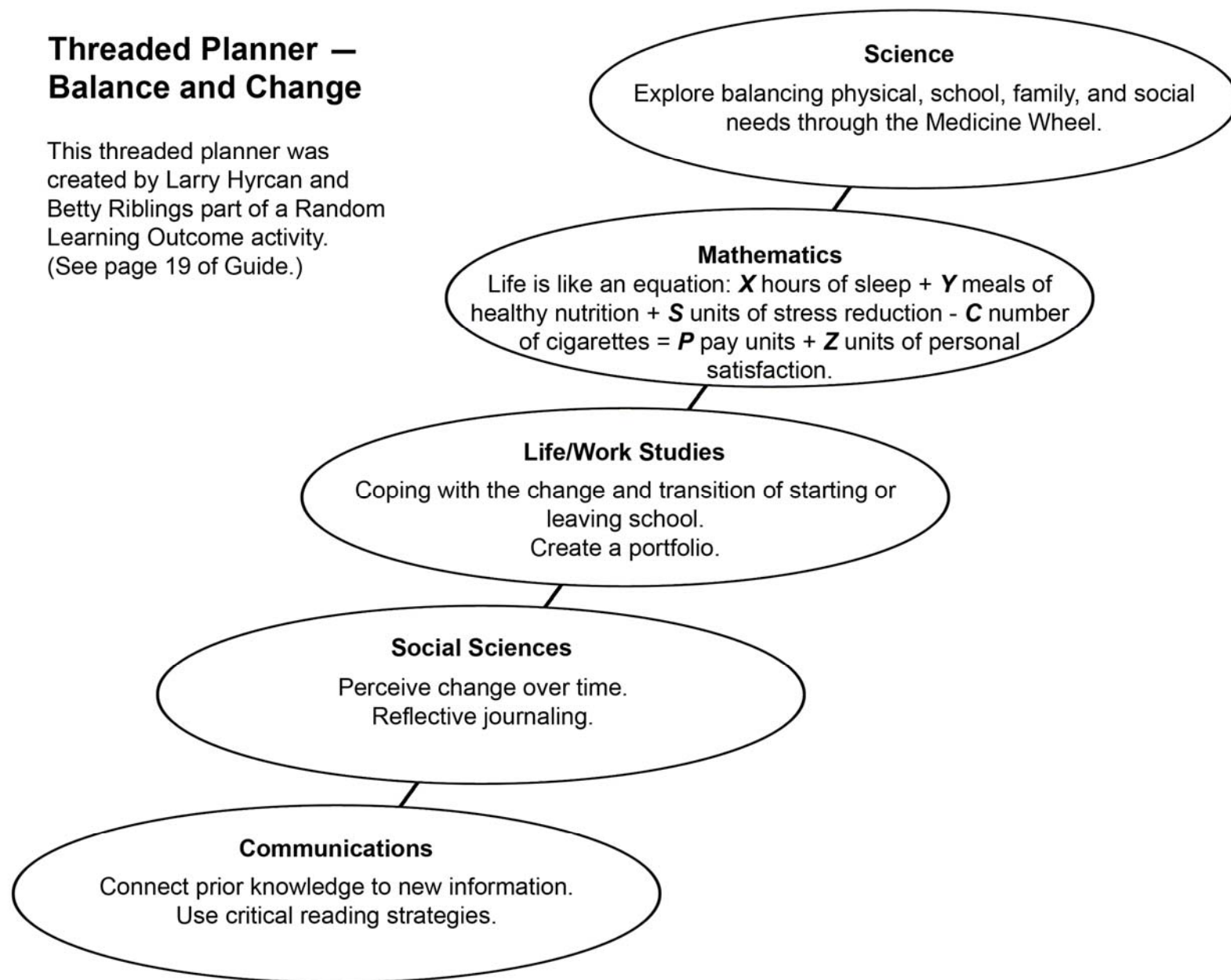
Presentations	Project	Journaling
<ul style="list-style-type: none"> • Prepare and present an plan for reducing the incidence of gangs • Present the results of a movie study to other learners 	<ul style="list-style-type: none"> • Research how gangs and drugs are related • Talk to local law enforcement agencies about gang activity in your community or region. • Research the history of gangs. 	<ul style="list-style-type: none"> • Reflect on the themes of videos or movies about gangs • Reflect on drug and alcohol use in gangs • Reflect on why young people join gangs and what alternative activities might be made available to them.

Webbed Planner



Threaded Planner — Balance and Change

This threaded planner was created by Larry Hyrcan and Betty Riblings part of a Random Learning Outcome activity. (See page 19 of Guide.)



Learning Outcomes for Threaded Planner – Balance and Change

Social Sciences

Culture and Identity

- Perceive change over time, and identify the implications of those changes for those involved and impacted by the changes.
- Evaluate treatments of the same issue as reported from different perspectives.
- Learners will analyze and reflect on personal and societal assumptions and norms.

Systems of Governance

- Analyze change over time.
- Examine their own assumptions and biases.

Life/Work Studies

Vision

- Clarify personal and work values.
- Reflect critically on socially-constructed assumptions and firmly held beliefs.
- Create a vision and paths for the future.

Emotion

- Analyze coping skills of change and transition.
- Demonstrate management of personal commitments and resources.

Action

- Develop the skills and products necessary to apply for community participation/work.

Communications

Reading

- Use critical reading strategies.
- Examine sources with diverse perspectives.

Writing

- Connect prior knowledge to new information.

- Learners will integrate information from a variety of sources to write for inquiry or research.

Mathematics

Number and Number Sense

- Solve real world problems.
- Know when and how to apply the order of operations. Choose the correct operation(s) for solving a narrative problem.

Algebra

- Assign a variable to an unknown value.
- Use linear equations and inequalities to solve real world problems.

Science

Interrelationships

- Realize the impact one person has on problems and solutions.
- Acknowledge multiple perspectives are needed in a solution.

Matter

- Identify a chemical equation as balanced or not balanced.

Adult Education Principles

- Draw on learners' experiences as a resource.
- Cultivating self-direction in learners.

Generic Skills

- Reading text
- Thinking skills
- Continuous learning

Sample Activities and Assessment for Threaded Planner – Balance and Change

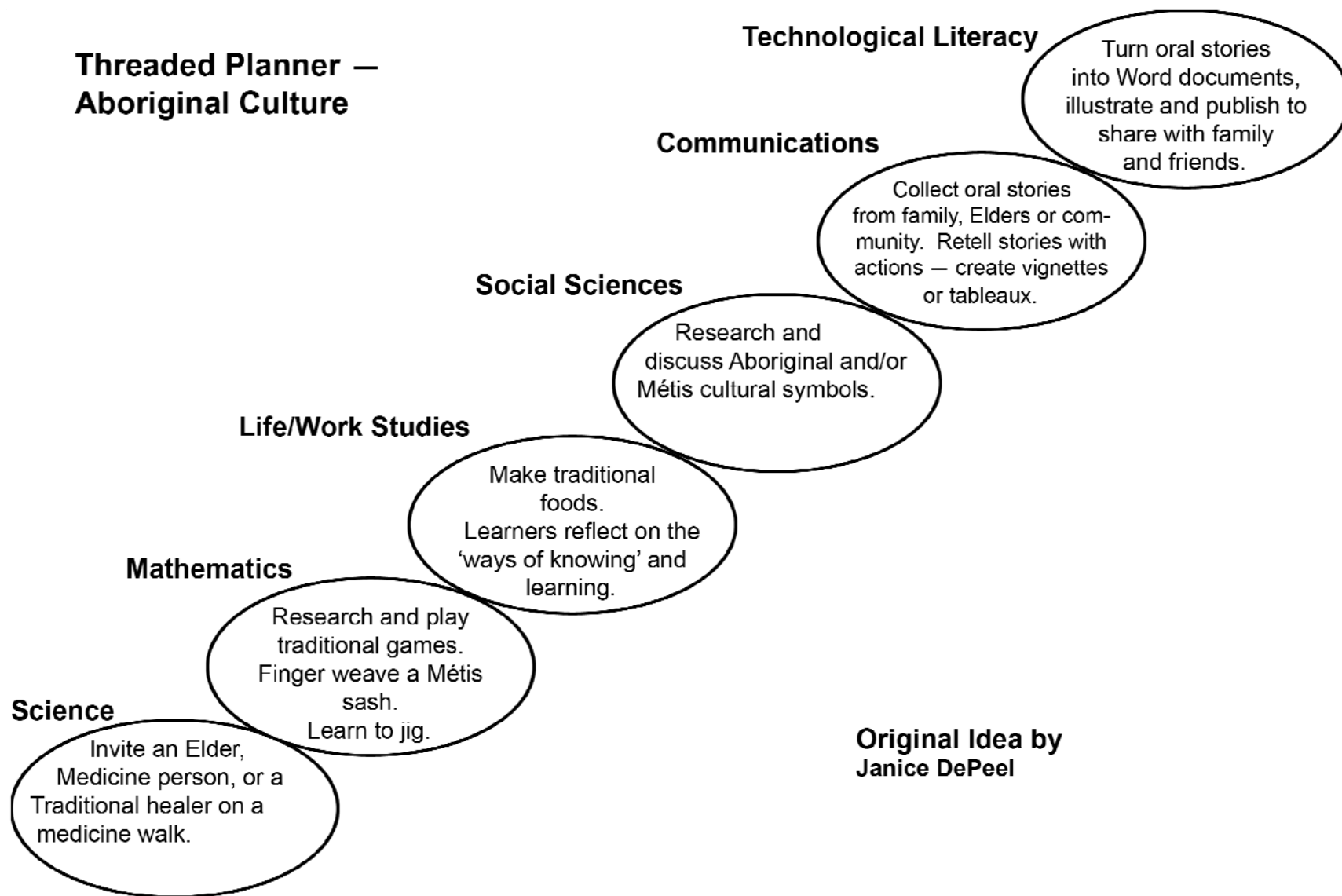
Activities:

- Create and implement a wellness plan.
- Devise a weekly schedule to balance time for self, school, work, and family.
- Make a budget for living on PTA – balance the budget using mathematics skills.
- Discuss circles of support and design a visual representation for them.
- Use a computer program to graph spending habits.

Assessment Strategies:

Logs	Rating Scales	Journal
<ul style="list-style-type: none">• Use a budget log to track spending: record every expenditure• Track daily activities using a daily planner	<ul style="list-style-type: none">• Design of circle of support representation• Design of budget log• Group participation	<ul style="list-style-type: none">• Reflect on the priorities one's life• Reflect on how a wellness plan can be implemented• Reflect on what a person spends money on• Reflect on the importance of support when trying to establish a life balance

Threaded Planner — Aboriginal Culture



Learning Outcomes for Threaded Planner – Aboriginal Culture

Social Sciences

Culture and Identity

- Learners will analyze ways in which membership in their culture shapes their identity and worldview.
- Learn about First Nations, Métis, and non-Aboriginal worldviews.

Life/Works Studies

Vision

- Reflect critically on socially-constructed assumptions and firmly held beliefs.
- Develop an image of a future for one's self.

Emotion

- Identify and assess ways of coping with change and transition.
- Devise strategies for dealing effectively with barriers.
- Express own response to an event, an experience, or a piece of literature.

Mathematics

Geometry

- Transform an object using reflections, rotations, and translations.
- Locate lines of symmetry of simple objects.

Science

Interrelationships

- Explore traditional ways of knowing and Western ways of knowing in relation to the concept of interrelationships.

Integrated Science

- Discuss different definitions of traditional knowledge.
- List examples of traditional technology. (e.g. snow shoes, tipi, travois, birch bark canoe).

Communications

Writing

- Identify different purposes and audiences for writing.
- Share, present, or publish preferred pieces with a planned audience.

Speaking

- Speak to share thoughts, opinions, and feelings.
- Interview and be interviewed by others.

Listening

- Listen to learn and to understand.
- Learners will recognize that listening is an active process of constructing meaning.

Technological Literacy

- Conduct basic searches on the Internet/World Wide Web.
- Insert/import graphics to a document.
- Prepare and deliver a presentation using the computer.

Generic Skills

- Communications
- Interpersonal teamwork
- Creative and critical thinking
- Technological literacy
- Valuing diversity

Adult Education Principles

- Drawing upon learners' experience as a resource.
- Cultivating self-direction in learners.
- Creating a climate that encourages and supports learning.
- Using small groups.

Sample Activities and Assessment for Threaded Planner – Aboriginal Culture

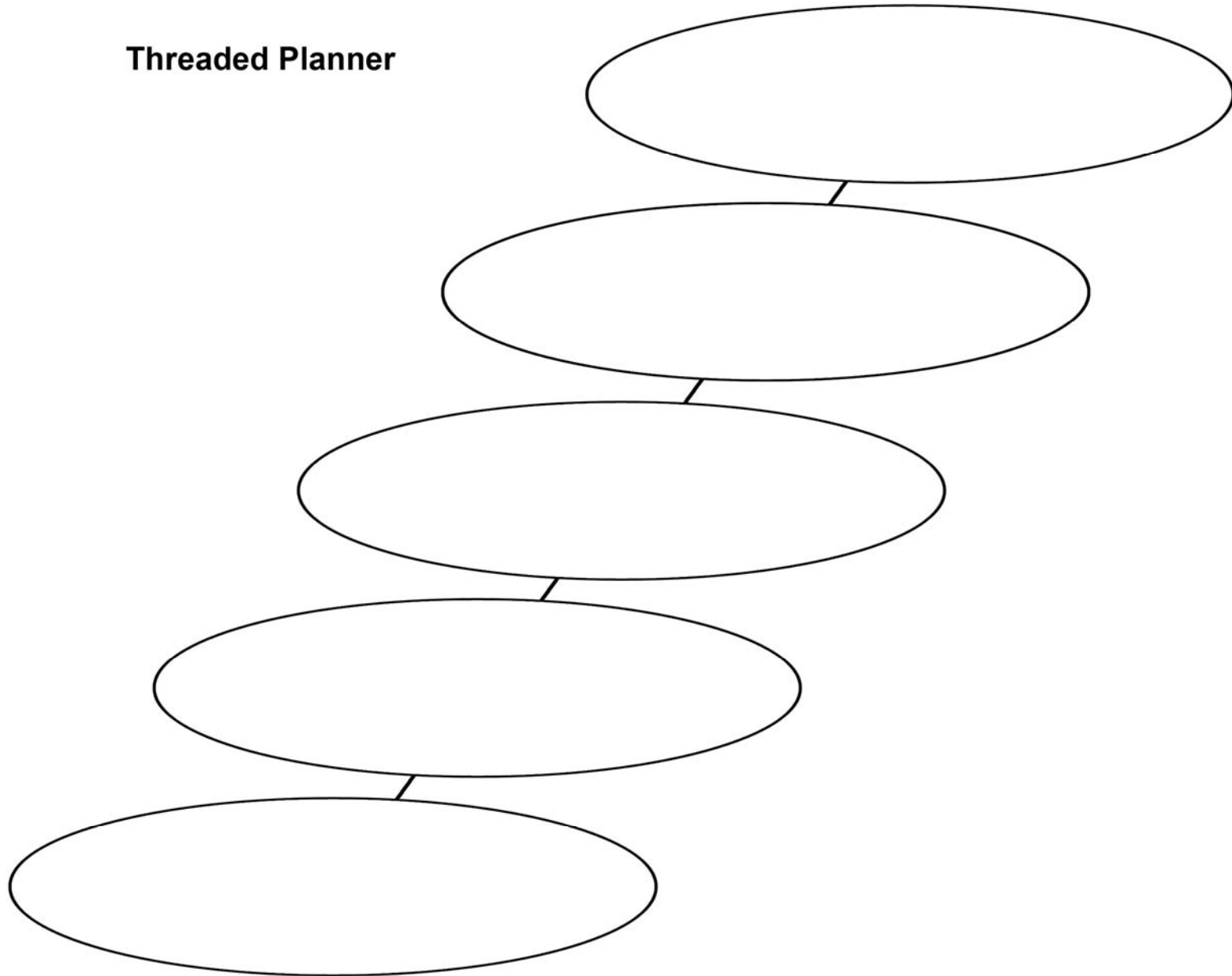
Activities:

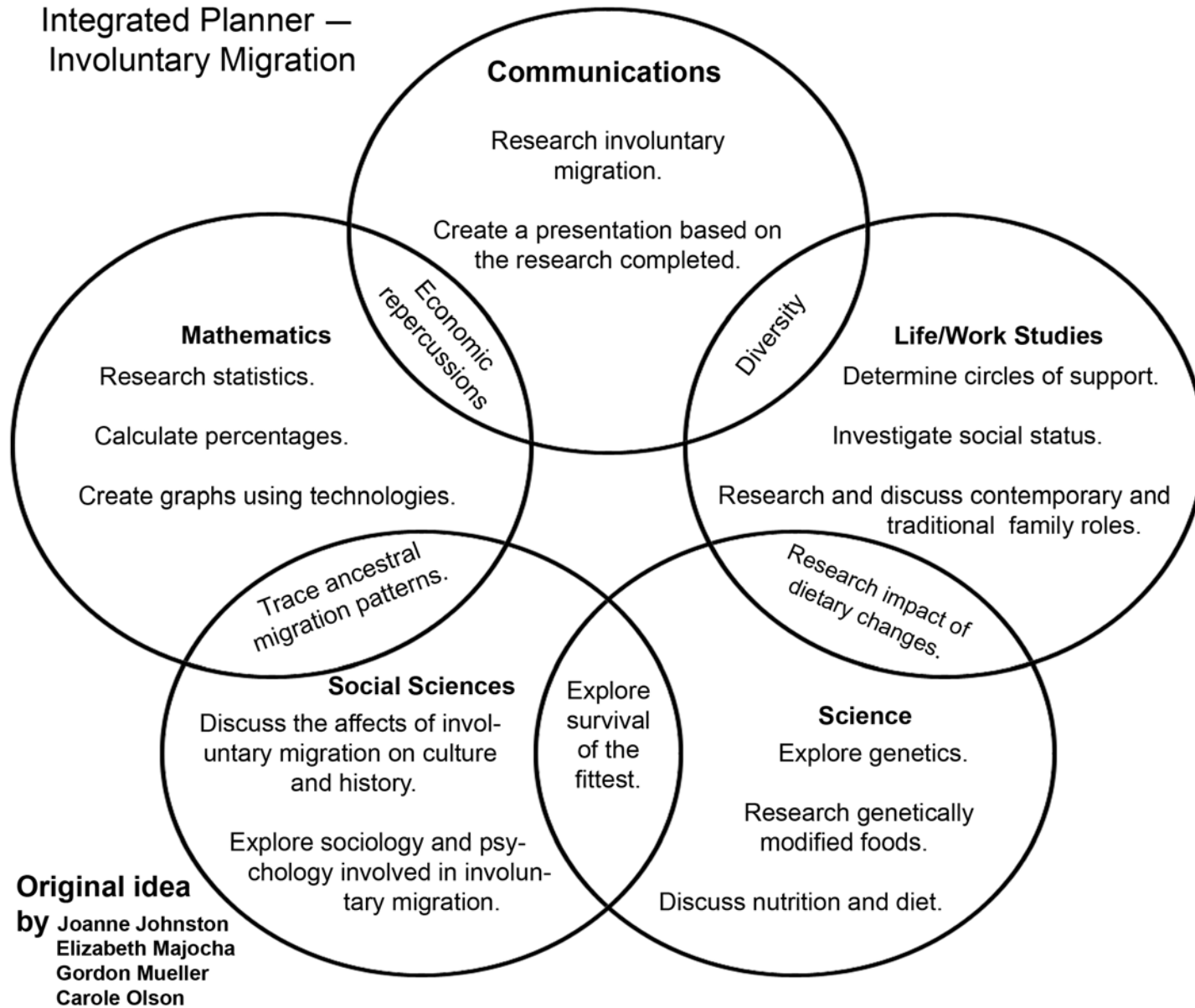
- Research the Indian Residential Schools Settlement Agreement and present your understanding of the issues to other learners.
- Prepare a presentation on cultural symbols of various Aboriginal groups (First Nations, Métis, Inuit)
- Read short stories or poems about residential school experiences
- Participate in a nature walk to find local medicines.
- Play traditional games.

Assessment Strategies:

Portfolio	Project	Journal
<ul style="list-style-type: none"> • Collect stories from Elders and include them in a process portfolio • Write a letter in the role of someone who lived in the region 100 – 200 years ago 	<ul style="list-style-type: none"> • Research and report on one aspect of Aboriginal culture (traditional healing or foods, nomadic lifestyle, traditional hunting and fishing, etc) • With the assistance of Elders, prepare a traditional feast • With the assistance of Elders, prepare a collection of stories about residential schools 	<ul style="list-style-type: none"> • Reflect on the concepts of: <ul style="list-style-type: none"> ○ Four directions ○ Four colours of man ○ Four seasons • Reflect on the role of the Truth and Reconciliation Commission • Reflect on your own understanding of culture and what it means to be part of a culture

Threaded Planner





Learning Outcomes for Integrated Planner – Involuntary Migration

Communications

Reading

- Learners will read and integrate information from several sources.
- Analyze through a response journal.

Writing

- Learners will integrate information from a variety of sources to write for inquiry or research.

Speaking

- Speak to share thoughts, opinions, and feelings.
- Learners will practice appropriate behaviours of effective speakers and complete a variety of speaking activities.

Social Sciences

Culture and Identity

- Learners will develop understandings of cultures other than their own.
- Learners will analyze and reflect on personal and societal assumptions and norms.

Systems of Governance

- Describe how laws are made, implemented and enforced in at least one system of governance

Life/Work Studies

Vision

- Reflect critically on socially constructed assumptions and firmly held beliefs.

Emotion

- Analyze the effects of change and transition.

Thought

- Analyze the relationship between community participation/work and identity.

Mathematics

Statistics and Proportion

- Collect, organize, and display data in a variety of forms to evaluate and make decisions.
- Read, understand, and analyze data in a variety of forms to evaluate and make decisions.

Science

Foundations of Scientific Literacy

- Ways of Knowing
- Processes of Science
- Habits of Mind

Interrelationships

- Learners will explore the connectedness of matter, energy, life, culture, society, technology, and environment to determine the purpose of science and its role in people's decision-making and problem-solving.

Integrated Science

- Ask questions about objects and events and develop ideas about how those questions might be investigated and answered.

Adult Education Principles

- All Adult Education Principles

Generic Skills

- All Generic Skills

Sample Activities and Assessment for Integrated Planner – Involuntary Migration

Activities

- Watch and reflect on movies with themes about displacement or involuntary immigration
- Small groups research a forced migration and present the findings to other learners.
- Track news stories about involuntary migration/displacement.
- Get involved with World Refugee Day.
- Talk to refugees (protected persons) or Elders about involuntary migration/displacement.
- Read fictionalized accounts of involuntary migration/displacement.

Assessment Strategies:

Self/Peer/Instructor Assessment	Projects	Journaling
<ul style="list-style-type: none"> • Rubrics for research • Rubrics and checklists for presentations 	<ul style="list-style-type: none"> • Collect stories about displaced populations. • Read, review, and analyze the website of the United Nations Refugee Agency (UNHCR) and present the findings to other learners. (http://www.unhcr.org/cgi-bin/texis/vtx/WRD) • Research and report on the effects of involuntary immigration/displacement, including personal, familial, societal, and political effects. 	<ul style="list-style-type: none"> • Reflect on the themes in movies about involuntary migration • Analyze understanding of the role of community in a person's life and what happens if that community disappears. • Reflect on what happens to the health of a group of people that is displaced.

Useful Websites – Involuntary Migration

http://www.digitalhistory.uh.edu/historyonline/immigration_movies.cfm

- lists questions to consider while watching the movie
- lists movies under African, Asian, European, and Latin American migration

<http://www.unhcr.ca/>

- United Nations High Commission for Refugees (Canada)
- comprehensive source of information about refugees and displaced persons around the world
- has a section for teachers, including a facilitator's manual for teaching others about refugees

<http://forcedmigrationguide.pbworks.com/>

- a guide compiled in 2008 for researching forced migration
- more of an instructor resource than student resource (can be a starting point for instructor)

<http://forcedmigrationguide.pbworks.com/browse/#view=ViewFolder¶m=REF%3A%20Multimedia%20Resources>

- list of multimedia resources available on topic of forced migration

<http://www.africville.ca/>

<http://digitalcommons.ryerson.ca/cgi/viewcontent.cgi?article=1092&context=dissertations>

- account of “Africville” (urban displacement of black people in Canada in 1960s)

<http://www.irb.gc.ca/eng/pages/index.aspx>

- Immigration and Refugee Board of Canada
- place to get information about different countries
- links to other resources

<http://olc.spsd.sk.ca/de/pd/instr/strats/narratives/index.html>

<http://homeworktips.about.com/od/paperassignments/ht/interview.htm>

- preparing to interview or write a personal narrative
- interview tips/guidelines

Website evaluation tools:

<http://exworthy.tripod.com/teachreswebeval.htm>

<http://www.mcil.co.uk/review/7-10-criteria.htm>

<http://www.library.cornell.edu/olinuris/ref/research/webcrit.html>

<http://21cif.com/tools/evaluate/>

Displaced Person Interview Assignment

Who?

You will be in groups of two and each group will have the opportunity to conduct one interview. You must interview someone who was forced to leave home and not someone who voluntarily left home. For example, you could interview a protected person (refugee) or someone who attended a residential school.

What?

You will interview someone who has a story about involuntary migration to share. Your group will turn in a rough draft with 20 questions to ask the person. Ask open-ended questions rather than closed ones. Your questions should not be answered by simply saying “yes” or “no” – each question should allow the person to share a story or memory with you. The draft questions will be due on _____.

From these questions you will pick 15 to ask. During the interview, use a video camera (if given permission by your interviewee) or record your interview. The tape or video will be turned in. Both people in the group must be present and take part. If your interviewee is able to bring pictures or items, ask them to do so! You can take pictures or record shots of these items and include them in your interview. The taped interview is due on _____.

After the interview, each person will be responsible for a paper reflecting on what has been learned and impressions of the experience overall (more information on this in the next section). After the interview tapes and papers are turned in, you will be required to write a thank you note to your interviewee. This will be an in-class assignment: the cards and postage will be provided. The papers are due on _____,

Reflection Paper:

You will need to write a reflection paper at the end of your interview, using the following topics in your paper. All topics must be addressed and all papers must follow the format given by the instructor.

- What topics did you research in order to prepare for the interview?
- What expectations did you have going into the interview?
- What was your overall experience in the interview?
- How did the interview meet/not meet your expectations?
- What surprised you about the stories the interviewee shared?
- What do you think you gained from this experience?
- Would you recommend this project to other students? Why or why not?

Where?

You will be asked to go to your interviewee’s home or meet her/him in a place that is convenient for the interviewee. Some may have trouble getting around, so it is your responsibility to accommodate that by having your meeting somewhere convenient, such as a restaurant or library.

How?

Make sure your questions are appropriate for the person you are interviewing. If you are interviewing a protected person (refugee), research the country or origin and ask relevant questions. If you are interviewing someone who escaped violence, ask how this affected his/her life. During the interview, always be respectful of the person you are interviewing. It is all right if the interviewee doesn't respond to the question if it is too personal or if the interviewee doesn't feel like talking about the topic. Don't press for an answer, just move on to the next question. Dress appropriately and use proper language and manners.

When?

The schedule below will help you keep track of what items are due when. Write these down in your planner, and mark them off as you complete each step. Assignments may be turned in early.

Timeline

_____	Draft questions due
_____	Final version of questions to ask the interviewee is due
_____	Contact the person you are going to interview and set up a date and time to meet
_____	Interview date
_____	Videotape or audio tape of your interview is due
_____	Reflection is due
_____	Thank you note is due

What am I responsible for?

- You will need to be present at the interview;
- Each person is responsible for turning in a one page reflection of this experience. In addition; and
- Each person will be responsible for participating with the group and contributing ideas.

What is the group responsible for?

- The list of questions to ask the person you are interviewing;
- Conducting the interview; and
- Writing the thank you note.

How many points is this worth?

- List of questions: 20 points
- Tape/Audio recording of interview: 50 points
- One page reflection: 40 points
- Thank you note: 15 points
- Total: 125 points

Adapted from: <http://isite.lps.org/khubbell/web/documents/RubricforInterview.doc>

Interview Rubric

	Excellent	Good	Needs Improvement	Unsatisfactory
	3 points	2 points	1 point	0
Arrives prior to the interview				
Introduces self: gives explanation of assignment				
Dresses appropriately				
Greets interviewee in culturally-appropriate manner				
Displays confidence with body language				
Maintains culturally-appropriate facial expressions, eye contact etc				
Responds in appropriate and effective manner				
Demonstrates knowledge of interviewee's background: asks appropriate questions				
Cues on interviewee's closure and responds appropriately.				

Evaluating a Group PowerPoint Presentation

	Elements Present	Comments
Effective design elements were used: <ul style="list-style-type: none">• Background design and colour• Font style, size, and colour• Amount of information on the screen• Number of slides		
Presentation included appropriate type and number of: <ul style="list-style-type: none">• Graphics• Photographs• Maps• Music		
Content: <ul style="list-style-type: none">• Original work• Obvious planning• Citations used when needed• Accurate and complete, with introduction, body, and summary• Appropriate to presentation• Standard English used		
Oral component: <ul style="list-style-type: none">• Maintains eye contact• Slides used as support for oral presentation• Speaks with conviction		
Team presentation: <ul style="list-style-type: none">• Well-rehearsed• Effective use of all members of the group		

Reflective Journal Rating Scale

(Adapted from *Creative Writing 20: A Curriculum Guide for the Secondary Level*
Saskatchewan Education, 1998, p. 33)

Name _____ Evaluation from _____ to _____.

Reflections recorded in journal Regularly Often Sometimes Rarely Never

Scale		Excellent 5	Good 4	Acceptable 3	Fair 2	Weak 1
1	Reflections are full and complete	5	4	3	2	1
2	Reflections demonstrate:					
	• Close attention to the activity	5	4	3	2	1
	• Personal connections made with the content	5	4	3	2	1
	• Significant issues, themes, or concerns are explored	5	4	3	2	1
	• Willingness to respond to a range of styles and forms of communication	5	4	3	2	1
	• Insight and thoughtful extensions of the content	5	4	3	2	1
3	What has been learned from reflections has been applied to subsequent activities	5	4	3	2	1
4	Overall rating of the Reflective Journal	5	4	3	2	1

Total rating

Comments

Written Report Assessment Rubric

	Exemplary	Accomplished	Developing	Beginning	Score
	4 points	3 points	2 points	1 point	
Content	Clear thesis and focus that remains apparent	Thesis and focus that remains apparent	Addresses subject matter with minimal support	Does not focus on topic	
Grammar	Correct and effective use of grammar and mechanics	Occasional errors in use of grammar and mechanics	Problems in use of grammar and mechanics	Repeated errors in use of grammar and mechanics	
Organization	Ideas flow smoothly and logically with clarity and coherence	Logical order and appropriate sequencing of ideas with adequate transition	Some evidence of an organizational plan or strategy	Lacks organization	

Group Work Assessment Rubric

	Highly Successful	Meeting Success	Experiencing Difficulty	Score
	3 points	2 points	1 point	
Sharing	Shared ideas with others	Occasionally shared ideas with others	Seldom shared ideas with others	
Listening	Always listened to peers	Occasionally listened to peers	Ignored ideas of peers	
Respecting	Interacted with, encouraged, and supported ideas of others	Occasionally encouraged and supported others	Seldom encouraged and supported others	
Participating	Shared task equally with group members	Did most of the task	Did very little of the task	

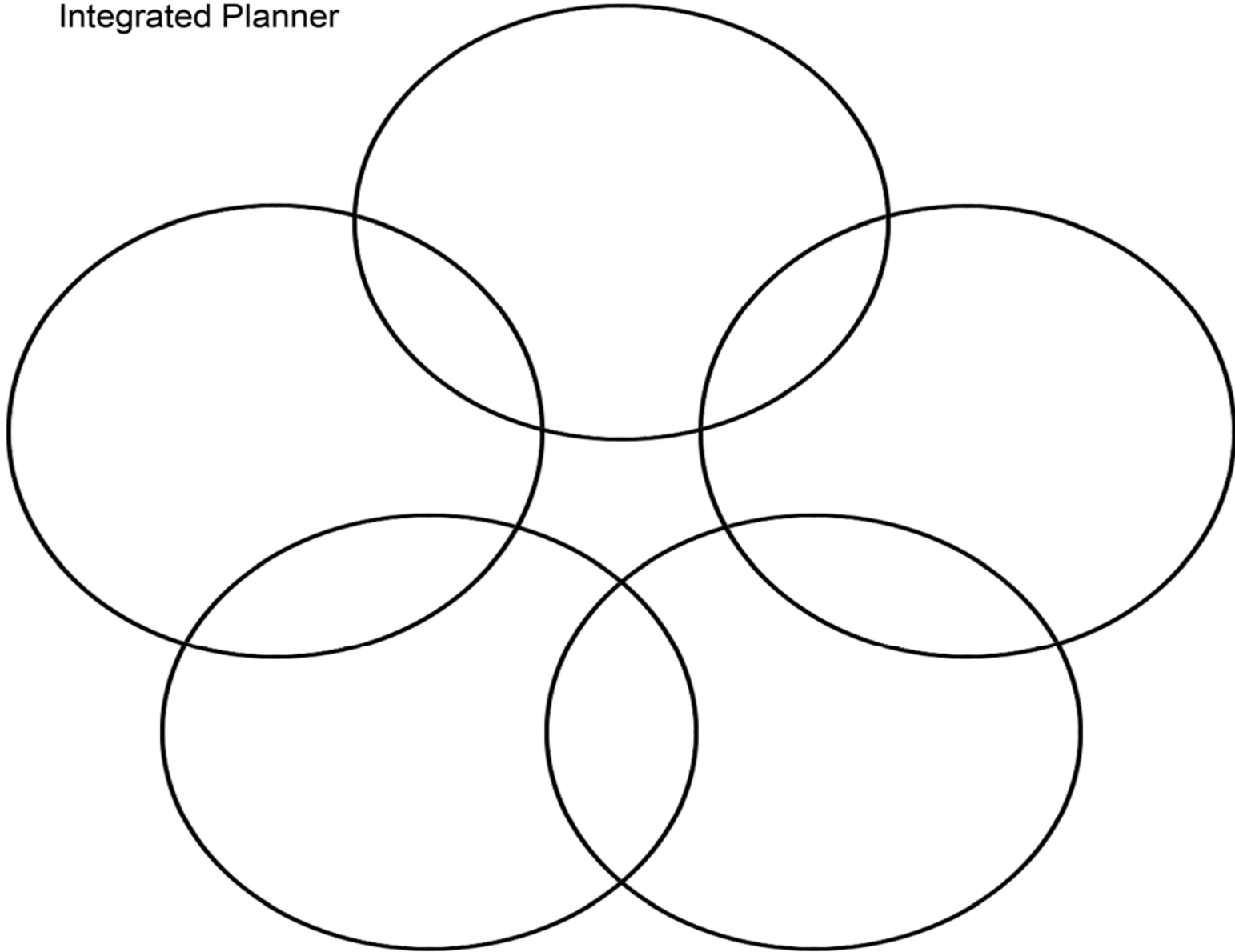
Group Presentation Assessment Rubric

	Exemplary	Accomplished	Developing	Beginning	Score
	4 points	3 points	2 points	1 point	
Content	Clear, appropriate, and correct	Mostly clear, appropriate, and correct	Somewhat confusing, incorrect, or flawed	Confusing, incorrect, or flawed	
Clarity	Logical, interesting sequence	Logical sequence	Unclear sequence	No sequence	
Presentation	Clear voice and precise pronunciation	Clear voice and mostly correct pronunciation	Low voice and incorrect pronunciation	Mumbling and incorrect pronunciation	
Visual Aids	Attractive, accurate, grammatically correct	Adequate, mostly accurate, few grammatical errors	Poorly planned, somewhat accurate, some grammatical errors	Weak, inaccurate, many grammatical errors	
Length	Appropriate length	Slightly too long or short	Moderately too long or short	Extremely too long or short	
Participation	Well-balanced participation by all group members	All group members have significant participation	Most group members participate	One main speaker with little participation from other group members	
Eye Contact	Maintains eye contact, seldom looking at notes	Maintains eye contact most of time but frequently returns to notes	Occasionally uses eye contact but reads most of information	No eye contact because reading information	

Group Participation Assessment Rubric

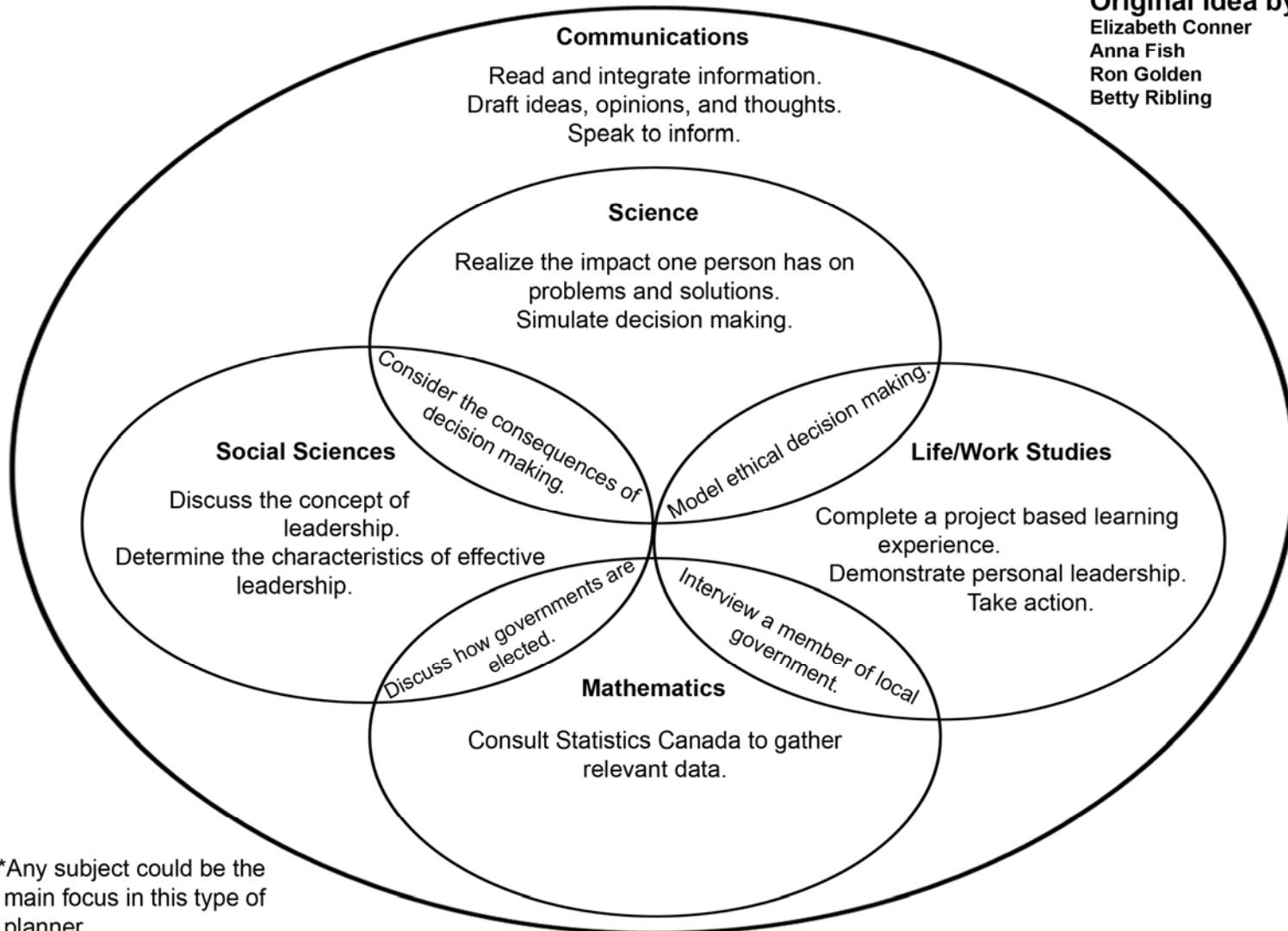
	Beginning	Developing	Accomplished	Exemplary	Score
	1 point	2 points	3 points	4 points	
Group Discussions	Rarely contributed to discussions of the group	Contributed good effort to discussions of the group	Contributed great effort to discussions of the group	Contributed exceptional effort to discussions of the group	
On-task Behavior	Exhibited on-task behavior inconsistently	Exhibited on-task behavior some of the time	Exhibited on-task behavior most of the time	Exhibited on-task behavior consistently	
Helping Others	Did not assist other group members	Seldom assisted other group members	Usually assisted other group members	Assisted other group members	
Listening	Ignored ideas of group members	Seldom listened to ideas of group members	Usually listened to ideas of group members	Always listened to ideas of group members	

Integrated Planner



Integrated Planner with a Communications* Focus — Leadership

Original Idea by
Elizabeth Conner
Anna Fish
Ron Golden
Betty Ribling



*Any subject could be the main focus in this type of planner.

Learning Outcomes for Integrated Planner with a Communications Focus – Leadership

Communications

Reading

Learners will read and integrate information from several sources.

Writing

- Learners will identify a variety of purposes, audiences, and formats for writing.
- Draft ideas, opinions, feelings, and thoughts.

Speaking

- Learners will speak for a variety of purposes and audiences.

Listening

- Learners will demonstrate appropriate behaviours of effective listeners while completing a variety of listening activities.

Social Sciences

Culture and Identity

- Describe how gender, race, class, and socio-economic situation impacts on identity and self-concept
- Analyze ways in which identity labels affect one's identity and worldview
- Demonstrate understanding of gender equity issues

Systems of Governance

- Describe the qualities of positive leadership.
- Describe their own leadership qualities.
- Analyze differences in power based on culture, race, gender, and class.
- Learners will analyze the concept of leadership.

Life/Work Studies

Vision

- Discuss the impact that strengths have on one's personal and community participation/work life.
- Identify role models in the community and discuss how they might provide support.

Thought

- Analyze the relationship between community participation/work and identity.

Action

- Participate in a project-based learning experience in the community.

Mathematics

Ratio/Rate/Proportion

- Apply ratios, rates, and proportions as a way to make comparisons.

Statistics and Probability

- Read, understand, and analyze data in a variety of forms to evaluate and make decisions.

Science

Interrelationships

- Realize the impact one person has on problems and solutions.

Adult Education Principles

- All Adult Education Principles

Generic Skills

- All Generic Skills

Sample Activities and Assessment for Integrated Planner with a Communications Focus – Leadership

Activities:

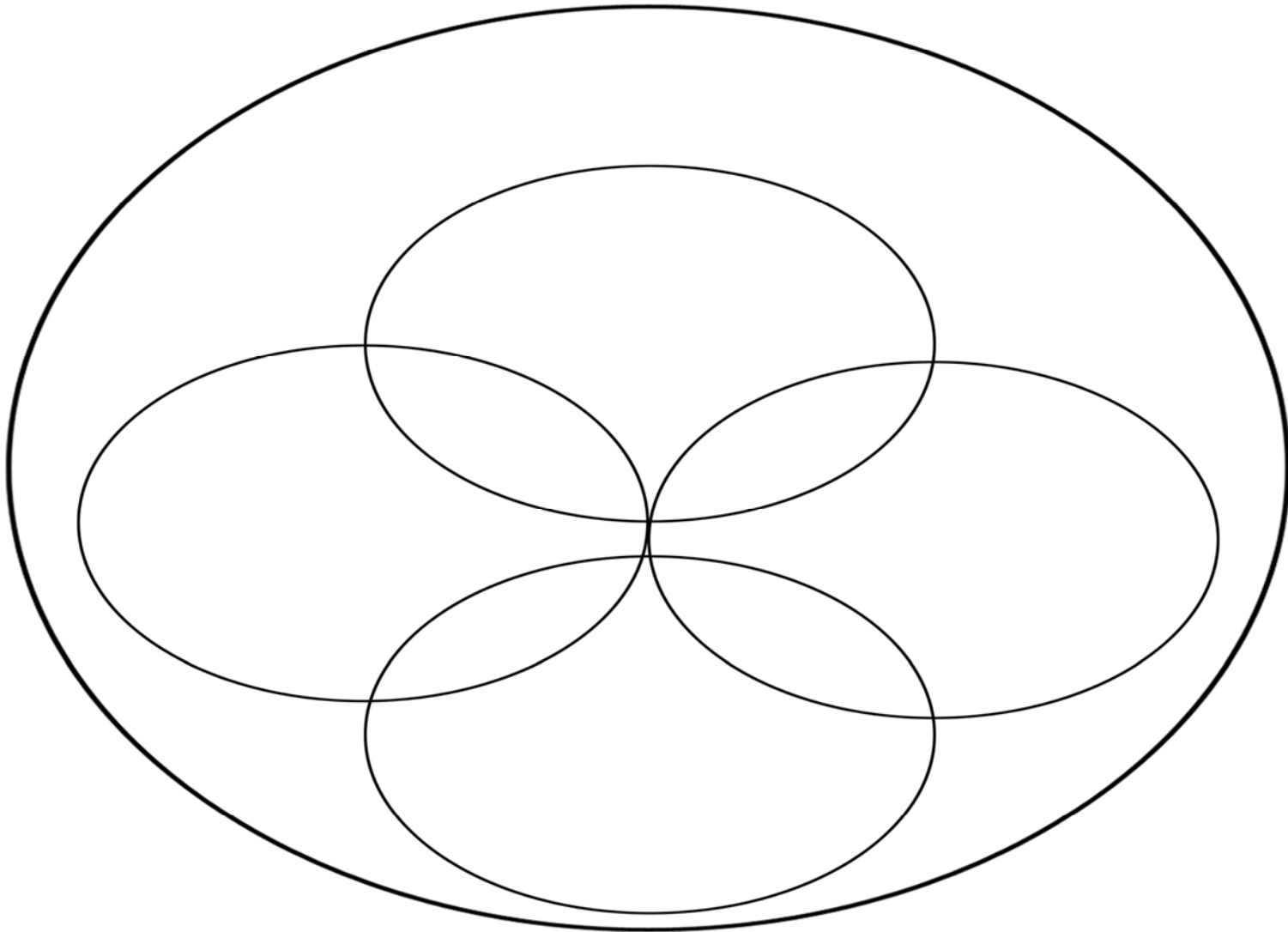
- Research the life of a leader: present the information to other learners.
- Research different leadership theories.
- Write a letter to a community leader.
- Analyze leadership styles of community leaders or band councillors.

Assessment Strategies:

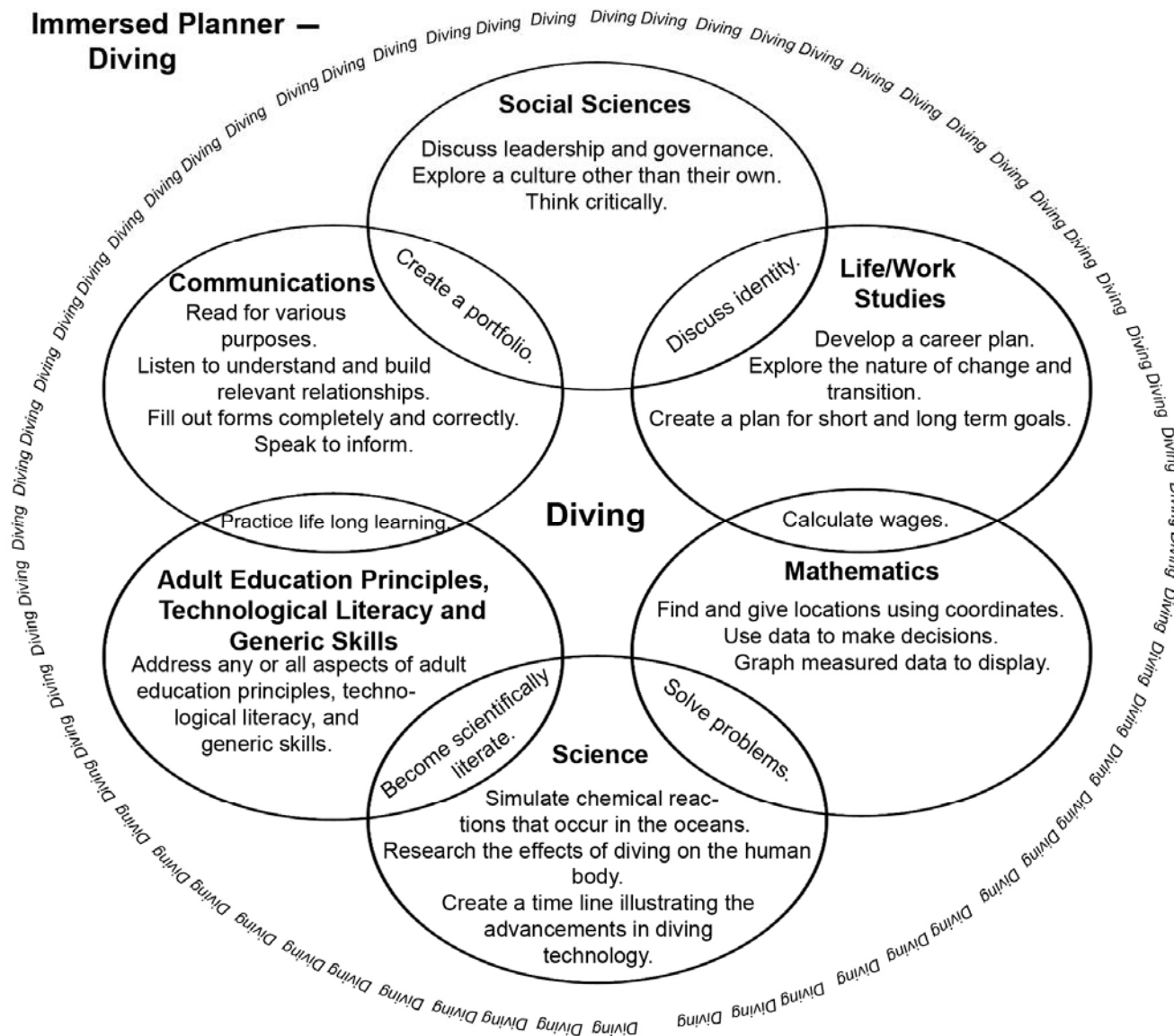
- Learners and instructors determine the weight of each portion of the project.
- Self, peer, and instructor evaluation methods can be used throughout.

Rubric	Project	Self/Peer/Instructor
<ul style="list-style-type: none">• Letter• Research methods• Presentation	<ul style="list-style-type: none">• Leadership research paper• Internet search for different leadership styles• Interviews of different community leaders or band councillors	<ul style="list-style-type: none">• Presentation• Learner generated question and answer sheets.

Integrated Planner with a Focus



Immersed Planner — Diving



Learning Outcomes for Immersed Planner – Diving

Communications

Reading

- Learners will read and integrate information from several sources.

Writing

- Complete three different types of multi-step forms.

Speaking

- Learners will speak for a variety of purposes and audiences.
- Learners will recognize that speaking is a process as well as a tool for communicating, thinking, and learning.
- Speak to narrate, to describe, to inform, to persuade, and to instruct.

Listening

- Listen to learn and to understand.
- Listen to build relevant relationships.

Social Sciences

Culture and Identity

- Integrate critical reflection into one's thinking.
- Evaluate treatments of the same issue as reported from different perspectives, and in different media.
- Examine a culture, other than their own, from their community as to cultural symbols, identity, sense of place, and worldview.
- Identify cross-cultural commonalities and differences, of their own and the other culture examined, with respect to the above concepts.

Systems of Governance

- Describe how laws are made, implemented, and enforced in at least one system of governance.
- Know that for every right there is a responsibility.

Life/Work Studies

Vision

- Identify personal interests, personality characteristics, skills, and strengths.
- Explore participation in groups and the community.
- Develop an image of a future for one's self.

Thought

- Create a plan for short-term and long-term goals.

Mathematics

Numbers and Number Sense

- Recognize characteristics, patterns, and properties of numerical values and operations in the Real Number System to apply to values in any context.

Algebra

- Use linear equations and inequalities to solve real world problems.

Measurement

- Identify the base in a right prism or cylinder as a geometric shape: cube, rectangle, triangle, and circle.
- Estimate the fraction, percentage, or amount of volume in a partially-filled container.
- Calculate the volume of right prisms and cylinders.

Ratio/Rate/Proportion

- Use ratio, rate, proportion, and percentage to solve problems in meaningful contexts.

Statistics and Probability

- Organize data in a variety of ways.
- Read information directly from a graph.
- Analyze and interpret probability to make a decision.

Science

Foundations of Scientific Literacy

- All foundations

Interrelationships

- Learners will explore the interconnectedness of matter, energy, life, science, culture, society, technology, and environment to determine the purpose of science and its role in people's decision-making and problem-solving.

Integrated Science

- Learners will apply the skills and processes acquired in the home, at work, and in the community.

Matter

- Describe situations in everyday life where the density of substances changes naturally or is altered intentionally.
- Recognize chemical reactions that occur in everyday life.

Energy

- Explore the consequences of decisions about individual and societal resource-use.
- Understand Newton's Three Laws of Motion.

Life

- List all the major organs of particular body systems and their primary function.
- Research the factors that affect specific systems: viruses and bacteria, nutrition, smoking, drugs and alcohol, chronic and acute diseases.
- Describe some of the bodies' own defence mechanisms (e.g. tears, white blood cells, mucus, cilia).

Adult Education Principles

- All Adult Education Principles

Generic Skills

- All Generic Skills

Sample Activities and Assessment for Immersed Planner – Diving

Activities:

- Create a career portfolio.
- Complete various forms needed for international travel and diving (passport, vaccinations, etc)
- Make a timeline of the development of diving.
- Create a visual representation of one or more of the scientific concepts associated with diving.
- Complete a density lab.
- Create bar graphs of mineral in seawater.
- Make a slide show highlighting a dive location with an emphasis on eco-tourism.

Assessment Strategies:

Project	Checklist	Logs
<ul style="list-style-type: none"> • Create a product portfolio using artefacts developed during research and field trips • Plan a dive trip • Plan a field trip to a dive shop or pool • Create slideshow of some of the top diving spots in the world 	<ul style="list-style-type: none"> • Explore military and civilian careers in diving. • Lists of things divers have to know and do • Lists of equipment and their costs 	<ul style="list-style-type: none"> • Read articles and stories about diving • Keep track of what scientific and mathematical knowledge is needed for diving • Keep a diving log

Rubric for Diving Log

	Yes, and...	Yes	Yes, but...	Incomplete
Pre-dive planning	<p>Everything listed to the right and:</p> <ul style="list-style-type: none"> • species that might be seen during dive and where to look for them • review of communication signals • very conservative dive profile • dive equipment to be used 	<p>Complete dive plan including</p> <ul style="list-style-type: none"> • descent and ascent plan • discussion of safety • weights and tank size • tank pressure • dive buddy 	<p>Parts are missing from the complete dive planner or calculations are incorrect.</p>	<p>Not done at all</p>
Post dive	<p>Everything listed to the right and:</p> <ul style="list-style-type: none"> • completed fish survey listing species and number • conditions of reef • how you felt – warm or cold, stressed or calm 	<p>Complete dive plan including</p> <ul style="list-style-type: none"> • remaining air and down time • water conditions 	<p>Computer dive watch information is entered</p>	<p>Not done at all</p>

Checklist for Exploration of Military and Civilian Careers in Diving

- ☐ I have researched at least two military and two civilian diving careers.
- ☐ I have explored both fresh and salt-water careers.
- ☐ I have interviewed one military and one civilian professional diver.
- ☐ I have visited a local dive shop.
- ☐ I have completed a daylong (minimum) job shadow.

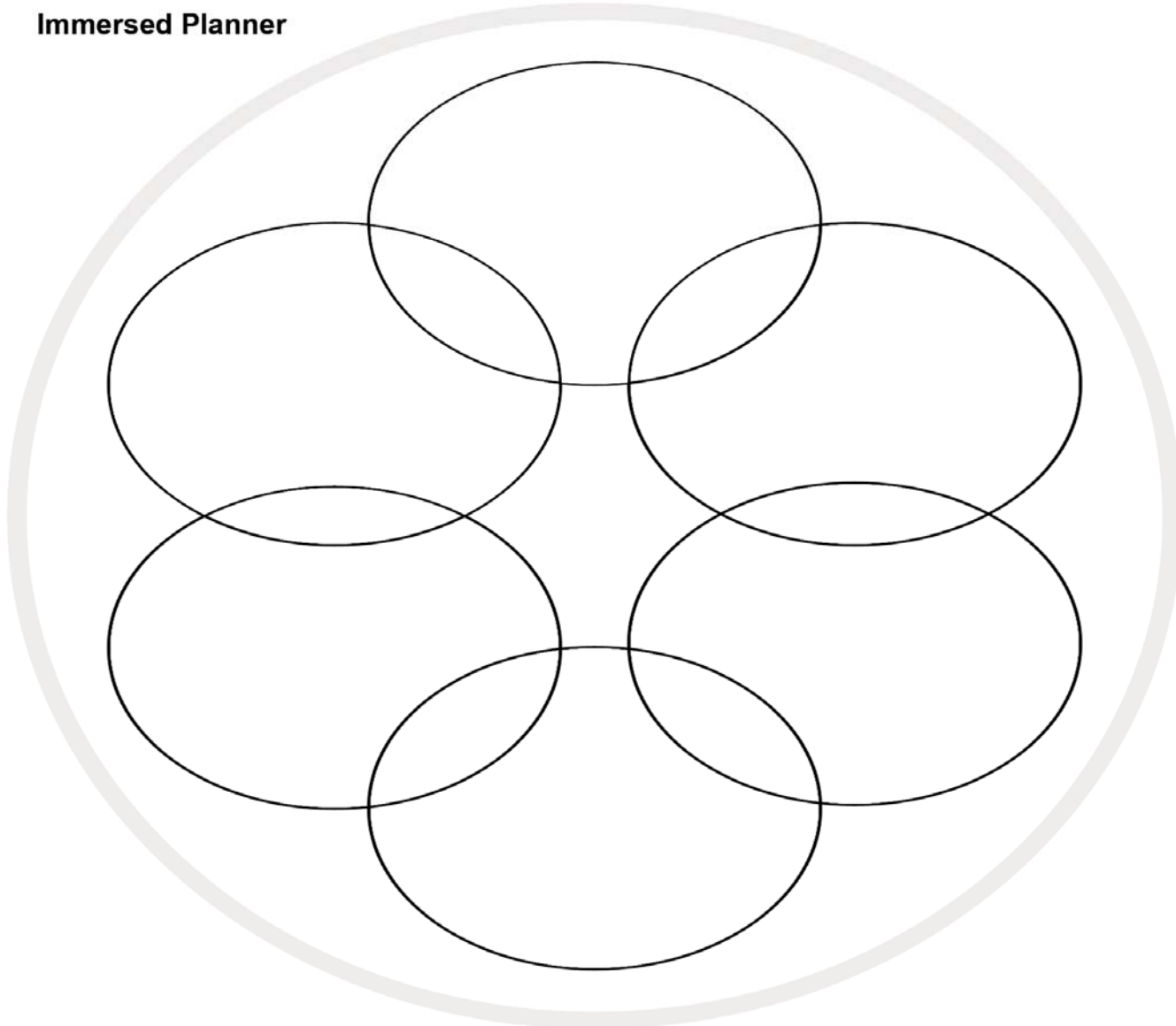
For each of the careers that I researched, I know....

- ☐ what the duties are.
- ☐ the working conditions – inside, outside, lifting, hours, travel, etc.
- ☐ where the job would be located.
- ☐ characteristics of successful person doing this job.
- ☐ what entry-level positions are available.
- ☐ what skills and experiences the employers are looking for in an entry-level position.
- ☐ what the typical starting salary is as well as after five and ten years.
- ☐ types of advancement potential.
- ☐ the future job outlook – growing, stable, or declining.
- ☐ locations where training is available.
- ☐ prerequisites for training.
- ☐ cost and duration of training.
- ☐ if there are internships or co-op programs available.
- ☐ ways that I can pay for the training.
- ☐ percentage of graduates that are employed six months after graduation.
- ☐ if there is further training available or required.

Adapted from:

<https://www.msu.edu/~uud/ConnectMajorsCareers/CareerExplorationChecklist.pdf>

Immersed Planner



Annotated Bibliography

Community Resources

Instructors are encouraged to seek local resources and supports to contextualize content for their learners in their individual communities. The local telephone directory has numerous resources which can be used in adult learning situations. Other kinds of resources are listed below: instructors can use these as a starting point in their search for contextualized resources.

Rural	Urban	National
Public Health Nurse/Offices	(All listed rural resources are applicable here)	Environment Canada
Town Hall MPs Mayor Councillors	Museums	Health Canada
RCMP	Science centers	Government of Canada
Fire Department	Theatres	Employment Canada
Library	Legislative centres (courts, provincial legislature, etc)	Statistics Canada
Local post-secondary delivery organization	Universities or colleges	Canadian Centre for Occupational Health and Safety

Print Resources

The resources listed here are intended to provide instructors with in-depth information about the theory of integration as well as other instructional practices of particular benefit to adult educators and learners. This list is not exhaustive list, but represents some useful resources the authors consulted in the course of compiling this guide.

Cranton, P. (2006). ***Understanding and promoting transformative learning: A guide for educators of adults.*** (2nd ed.) Publisher: Jossey-Bass. ISBN: 0-7879-7668-7

This book explains transformative learning theory, describes the process from the learner's perspective, explores individual differences in transformative learning, presents strategies for fostering transformative learning, and discusses how adult educators themselves are transformative learners.

Erickson, H. L. (1998). ***Concept-based curriculum and instruction: Teaching beyond the facts.*** Publisher: Corwin Press, Inc. ISBN: 0-8039-6581-8

This book offers specific strategies for curriculum design, instruction, and evaluation to help create a seamless learning program that encourages learners how to grasp broad concepts and integrate the information they learn. The author also responds to instructors' most frequently asked questions, including those concerned with developing programs that integrate concept/process with curriculum.

Fogarty, R. (1991). ***How to integrate the curricula. (The mindful school series).*** Publisher: Skylight Publishing ISBN: 0932935311

This resource explains, in great detail, each of the different levels of integration explored in this guide. The author describes what each model looks and sounds like, as well as the advantages and disadvantages of each level.

Soifer, R., Irwin, M. E., Crumrine, B. M., Honzaki, E., Simmons, B. K., & Young, D. L. (1990). ***The complete theory-to-practice handbook of adult literacy: Curriculum design and teaching approaches.*** Publisher: Teachers College Press ISBN: 0-8077-3028-9

Taking an interactive approach to adult learning, the authors of this resource propose that literacy programs be responsive to learners' backgrounds, language, and interests. This resource presents practical guidelines for course content and instructional activities that include:

- Alternative procedures and instruments;
- Recommended lesson formats and illustrative lesson plans;
- Ideas for materials other than packaged curricula; and
- Suggestions for software selection and how to integrate computer activities into adult literacy programs.

Tchudi, S. & Lafer, S. (1996). ***The interdisciplinary teacher's handbook: Integrated teaching across the curriculum.*** Publisher: Boynton/Cook Publishers. ISBN: 0-86709-398-6

The authors present a thoughtful approach to interdisciplinary teaching and offer a great deal of advice on developing integrative practices. They provide a rationale for interdisciplinary teaching that lets you understand the "why" before you accept the "how." They include brief exercises that ask you to reflect on your most powerful learning experiences so you can discover ways in which interdisciplinary methods match your natural thought processes.

Weimer, M. (2002). ***Learner-centered teaching: Five key changes to practice.*** Publisher: Jossey-Bass ISBN: 0-7879-5646-5

To help educators accomplish the goals of learner-centered teaching, this book presents the meaning, practice, and ramifications of the learner-centered approach, and how this approach transforms the classroom environment. This resource shows how to tie teaching and curriculum to the process and objectives of learning rather than to the delivery of content.

Electronic Resources

The electronic resources listed below are some examples of the resources the authors of this guide found useful in developing and extending their understanding of the underlying principles of integration. An Internet search will provide many more relevant sites.

General Integration Sites

Board of Studies, New South Wales, Australia: Curriculum Integration

As retrieved March 2008.

http://k6.boardofstudies.nsw.edu.au/linkages/Curriculum/curriculum_literature.html

This site is really an annotated bibliography with lists of print articles and resources educators may find of interest. All of the resources listed focus on curriculum development and curriculum integration.

Curriculum Leadership Website: Integration of Science with Other Learning Areas

As retrieved March 2008.

<http://cmslive.curriculum.edu.au/leader/default.asp?id=8861>

This site offers advice on how to integrate science into other areas of the curriculum. The article delineates the inherent differences between integrated curriculum and more traditional approaches.

Goliath Business Knowledge on Demand: Integrating occupational and academic skills across the curriculum.

As retrieved March 2008. http://goliath.ecnext.com/coms2/summary_0199-873935_ITM

This short article discusses effective integration of occupational and curricular goals in business/educational contexts.

International Association for the Study of Cooperation in Education: Cross-curricular Integration: Modelling the Process to Pre-service Teachers

As retrieved March 2008.

http://www.iasce.net/Conference2004/24June/Terryhopkins/Conference_singapore.doc

This article discusses modeling integrative practices with pre-service teachers. Suggestions and tips for successful integration practices are explored throughout the article. Although the teachers discussed in this article are primary teachers, the suggestions contained within are applicable to a wide variety of instructional and organizational contexts.

Oklahoma Higher Education: Integration

As retrieved March 2008.

<http://www.okhighered.org/okglobaled/integration.shtml>

This site provides some general information about integration, and also provides links to other web pages that may be of interest to educators.

Oregon Small Schools Initiative: Academic Rigor

As retrieved March 2008. <http://www.e3smallschools.org/ar.html>

Here instructors will find a site that suggests strategies instructors can employ to encourage academic achievement. The strategies explored include setting high expectations, emphasizing depth over breadth, cross-curricular integration, curriculum mapping, and stating outcomes with built-in supports.

Small Schools Project: Integrating Curriculum

As retrieved March 2008.

http://www.smallschoolsproject.org/PDFS/Planning_Resources/summer2003/summer2003-integrating.pdf

This article is extremely useful for understanding integration theory and practices and is full of suggestions for implementation. Many of the tips and suggestions listed in this document were used in the creation of this guide. Extra examples of integrated units are available for instructors to examine and adapt for use in their own classrooms.