

APPENDICES

Ethics and Philosophy

2101

Appendix A – Suggested Viewing Resources: The Afterlife

The following online resources (available at time of printing) may be helpful in discussions and activities related to SCO 6.1: *Students will be expected to examine the different views that philosophy and various belief systems have towards the connection between themselves and the world.*

1. Michelangelo's "Last Judgment" (<http://www.wga.hu/frames-e.html?/bio/m/michelan/biograph.html>) – click on Last Judgment
2. Heaven and Hell, Thai folk art (<http://www.brentdamon.com/Thaifolkart.html>)
3. Dan Koon's "Baroque Entrance to Heaven" (<http://fineartamerica.com/featured/-baroque-entrance-to-heaven-dan-koon.html>)
4. Veronica Jackson's "Melting Aura" (<http://fineartamerica.com/featured/melting-aura-veronica-jackson.html>)
5. Sebastiano Ricci's "Enoch being taken up into heaven" (<http://www.oneyearbibleblog.com/2008/11/november-12th-o.html>)
6. "The Soul's Journey to Paradise", an explanation of the Egyptian afterlife by Donald A. Mackenzie (http://www.kenseamedia.com/encyclopedia/aaa/afterlife/egyptian_afterlife_1.htm)
7. "The Way to Nirvana", according to Shamatha Meditation Practice (<http://www2.bremen.de/info/nepal/Gallery-3/Misc/12-31/nirvana-0.htm>)
8. Herrad of Landsberg's illustrations for her "Hortus deliciarum/Garden of Delights" (full colour plates at <http://pagesperso-orange.fr/murpaieu/Mt%20Od%20Hortus%20deliciarum.htm> and background information at http://en.wikipedia.org/wiki/Hortus_deliciarum)
9. 16th century Persian miniature depicting Mohammed ascending into Paradise (http://www.zombietime.com/mohammed_image_archive/islamic_mohammed_face_hidden/)
10. "Heaven and Hell", according to various religions (<http://integral-options.blogspot.com/2007/03/neato-rama-heaven-and-hell-according-to.html>)
11. David Blackwood
 - a. "Spirit Departing – Once Told Tale" (<http://www.heritage.nf.ca/arts/agnl/prints/4b.html>)
 - b. "Vision of the Lost Party" (<http://www.heritage.nf.ca/arts/agnl/prints/5b.html>)
12. Gerald Squires "They Fled the Earth and Naked Climbed the Weather" (<http://www.heritage.nf.ca/arts/agnl/squires6.html#6a>)
13. Germaine Arnaktauyok's "Northern Lights" (<http://www.theglobalgame.com/blog/2007/11/first-among-soccer-nations-beckham-on-vancouver-swing-tries-football-by-canadian-rules/>)

Appendix B—How to Act in Daily Life

SCO 3.2 expects students *to examine the influence of sacred texts for daily living and decision making*. In discussions and activities related to this SCO, teachers may wish to refer to the basic tenets of selected living belief systems which guide adherents in their daily lives.

Love

Jesus' explanation of the Torah commandments is presented in *Matthew 22:34-40*. This explanation teaches Christians two basic tenets to guide daily living: love God and love your neighbour

Karma

The tenet of karma guides many Hindus, Sikhs and Buddhists in daily living. The basic understanding is that every action has a consequence, either positive or negative, depending on the initial action.

Seva

The word “seva” means “selfless service”. All Sikhs are encourage to perform seva in all aspects of life as a means to build community and improve the moral quality of the adherent.

The Ten Commandments

For many Jews and Christians, the Ten Commandments recounted in *Exodus 20:1-20* guide daily living and decision making. Several of the commandments are foundations for identifying criminal behaviour.

1. do not worship any god except God
2. do not make any idols or images to worship
3. do not take the name of God in vain
4. do not work on the Sabbath day
5. do not dishonour or disrespect your parents
6. do not murder
7. do not commit adultery
8. do not steal
9. do not lie
10. do not covet the belongings of other people

Noble Eightfold Path

Devout Buddhists cite the Noble Eightfold Path when describing the expectations for daily living. The path is intended to provide guidance in ways of thinking, speaking and behaving that will help the adherent reach Nirvana.

1. right understanding - know truth
2. right intention - resist evil
3. right speech - say nothing that might be harmful
4. right action - respect life
5. right livelihood - free the mind from evil
6. right effort - work in the service of others
7. right mindfulness - control evil thoughts
8. right concentration - practice meditation

Theravadan and Mahayanan Buddhists practice six elements in daily life which include following the Eightfold Path; Mahanyanan Buddhists also focus on proclaiming the life of the Buddha as one to follow.

The Five Pillars

Muslims following the teachings of the prophet Muhammed (PBUH) adhere to five tenets to guide daily living and life as a Muslim overall:

1. shahadah - there is no god but Allah
2. salah - pray five times a day
3. zakat - giving up of yourself to care for others
4. hajj - pilgrimage to Mecca once in a lifetime
5. saum - observing Ramadan (fasting)

The Four Goals

Hinduism provides many paths to follow for daily living. However, the basic tenets of dharma, artha, kama and moksha are consistent for adherents.

1. Dharma – practice of social duty
2. Artha – achieving success
3. Kama – enjoying life
4. Moksha – liberation and salvation

The Three Pillars

Adherents of Zoroastrianism follow three pillars of conduct for daily life:

1. good works
2. good thoughts
3. good deeds

Appendix C—The Inquiry-based Environment

To effectively foster critical thinking in an inquiry-based environment, Mary Cowhey (*Black Ants and Buddhists*, 2006) believes that questioning strategies are key. “My students and I didn’t know the answers to all these questions ... we planned to keep searching and asking. On the way to finding answers, we knew we would find more questions.” (12) She also uses questioning strategies to challenge assumptions and stereotypes. “Teaching critically listens to and affirms a minority voice that challenges the status quo. Instead of forcing assimilation and acceptance of dominant culture, it reexamines cultural assumptions and values and considers their larger ramifications.” (13)

Taking time at the beginning of the year (semester) to establish routines and structures will all but eliminate frustration later in the semester when students are challenged by new situations and problems. Structure and routine will allow those “teachable moments” to have much more impact and will allow students to direct their own learning more independently. The collaborative establishment of expectations for discussion and activities will provide students and teachers with the confidence to address sensitive issues and challenge opinions in a positive and engaging manner.

The following guidelines for creating a safe, inquiry-based discussion environment are provided as suggestions to be used at the beginning of the year (semester). Teachers should be comfortable with the approach they choose and be prepared to adapt and modify their choices based on the needs and strengths of their students.

Suggested approaches:

- Students generate a list of 5 guidelines that they are prepared to adhere to during open discussions.
- Engage students in a constructivist activity to build a consensus for guidelines.
- Use a pre-prepared lesson plan on community or team building attitude in the classroom.
- Provide students with a sample case study/scenario that will elicit emotional responses to a potentially sensitive or controversial issue.

Expectations:

- Use of names – when referring to other people, students should be encouraged to use non-specific names or titles (*e.g.*, not saying “my sister Joan”) to respect privacy.
- Using class time for therapy – students should be encouraged to reflect personally, to demonstrate a connection with an idea, activity or issue, without divulging information that compromises privacy.
- Use of vernacular language – students should choose words which reflect an open dialogue and avoid using words that inflame emotions (*e.g.*, “That’s so gay!”).
- Recognizing emotional responses – when discussing issues which may elicit emotional responses, students should practice respectful discussion strategies: taking turns to speak, responding non-verbally, using a Nerf ball, using rephrasing techniques effectively, *etc.*

Appendix D—Models for Critical Reflection

One of the key aims of the Ethics & Philosophy curriculum is to engage students in thinking about their own learning (*i.e.*, metacognition). The following suggested models and strategies may be beneficial in helping students meet outcomes associated with critical thinking and reflection.

“Critical thinking refers not only to the assessment of arguments ... but also to the diligent and skillful use of reason on matters of moral/social importance – on personal decision making, conduct and belief. By including its application to personal belief and decision making, we extend critical thinking to every domain of human interest.” (Noddings, 2006, p. 4)

Anticipation/Reaction Guide

This strategy is used before the instruction on new information begins. Given a list of statements, students make predictions based upon prior knowledge and evaluate those predictions after exposure to new information. The purpose of this strategy is twofold:

- activate and evaluate prior knowledge;
- create a state of curiosity/anticipation or to set the stage for the learning to come.

Procedure:

1. Generate a list of 4-8 statements related to your topic of study. Place these on an Anticipation/Reaction Guide. This can be in list or table format.
2. Provide each student with a copy of your guide.
3. Prior to introducing new information, engage students by having them write whether or not they AGREE or DISAGREE with the statements listed on the guide.
4. Teach your lesson content or facilitate classroom activity.
5. After the new content has been taught, ask students to react to the new information by responding again to the statements on the Anticipation/Reaction Guide.
6. Discuss students' before and after answers. Have they changed? What have students learned or realized that affects their answers. This can be done in pairs, groups, or as a whole class activity. Students could use their thoughts on this as journal-writing material.

Journal Responses

Journals are often thought of as someone's personal thoughts written in an elegant, leather-bound book. While academic or classroom journals do contain the students' personal thoughts and feelings and as such, must be treated as confidential, these journals provide students with the opportunity to reflect and process new information or to share their understanding (or lack of) with the teacher. Journal entries can also be used to cause students to relate personally to a topic before instruction begins.

The greatest benefit to the teacher is the ability to gain insight on the students' thinking process as well as their understanding about the topics/concepts being addressed in the classroom. As such it provides an excellent opportunity to engage in Assessment FOR Learning. Through reviewing the students' journals, the teacher is able to ascertain what is causing problems for students, what they find exciting and interesting, any misconceptions they have, *etc.*

For the student, journaling provides many benefits. Students may use a journal response to process new information. *Processing* occurs when students reflect on specific questions that are posed to them and by them; reflection helps students to clarify their thinking about what they have learned as well as to connect it to what they already know (all in a positive learning environment that is free of fear of criticism). In addition, journaling provides students with the opportunity *to reflect* on their personal values and goals, to engage in metacognition, and to chronicle their academic growth by revisiting past entries.

Journal responses can take a variety of forms: free writing (including lists of questions), creative writing (songs, poetry, drama, stories, *etc.*), transactional or explanatory writing, drawing or collecting relevant material (photos, drawings, poetry, stories, signs, objects, *etc.*). For more detail on the benefits of journaling, refer to the work of Kathy Yorks (<http://www.accessexcellence.org/MTC/96PT/Share/yorks.html>).

Considerations for Implementation:

- ✓ *Use of Instructional Time.* Limit journaling activity to 5 to 10 minutes per class or incorporate into other activities such as “write-pair-share”. Engage in shorter blocks of journaling throughout the lesson (*e.g.*, think about the question/prompt for 30 – 45 seconds and respond for 2 minutes and repeat several times during the lesson).
- ✓ *Confidentiality.* Students’ thoughts and opinions, when expressed in a journal, must be kept confidential. Students should be provided with the option to fold over and staple any entry they feel is too personal to share (even with the teacher).
- ✓ *Assessment.* Journals should NOT be assessed towards the student’s mark in the course. Teachers may opt to include “completion of journal activities” as an assessment item but not grade individual entries. Student journals provide teachers with an excellent Assessment *for* Learning tool. As the teacher reads the entry, it is important to provide positive feedback, to nudge students’ thinking a bit further, to question, to teach or to re-teach. Where journal entries indicate a lack of understanding, the teacher should indicate that they are “off track” and that this will be addressed in class.

Implementing Journals:

- Ensure students understand why journaling is important to their learning process and how journal assessment will be included in their evaluation.
- Clarify that the journals and the entries are confidential. Students may fold over and staple any entry that they do not want the teacher to

read. Students can opt to include journal entries in their portfolio.

- Refrain from simply asking students to make an entry in their journals. Assign specific activities or prompts to ensure students’ journals are the most effective. Examples:
 1. Summarize the main points of the lesson. This can be done in writing, in a graphic organizer, in a drawing or concept map or other representation.
 2. Before a lesson starts, ask students to write what they already know or believe about the topic. After the lesson(s) is taught, ask students to revisit what they originally wrote and make any changes they feel necessary to reflect their current understanding, beliefs, *etc.*
 3. Restate a concept or definition in their own words.
 4. Write a question about what they have learned so far.
 5. How do you feel about the topic? How do you think your best friend/parent/*etc.* would feel about the topic?
 6. Explain how the new topic relates to a topic already discussed in class.

For more ideas of how to use journals at the beginning, middle, and end of a lesson check out the suggestions at <http://712educators.about.com/cs/writingresources/l/bljrnacademic.htm>.

The “What? So What? Now What?” Model

This is a three-phase model to promote reflection in learners and can be used as a journaling activity. As with any journaling activity, reflection is an essential component of new learning; some learning theorists believe that we do not learn from doing – rather we learn from thinking about what we do (*i.e.*, making connections with what we already know).

The “What” phase:

- o This relates to the substance of the activity, presentation, or event.
- o While it leads naturally to interpretation, in this phase the learner should objectively report on what happened, what was presented, what was observed, *etc.* (*i.e.*, just the facts, no interpretation; describing in detail what they experienced or observed).
- o Questions that can be used to guide learners include: What happened? What did we do? What problem did we address/solve? What did you observe? What were the results of the event? What were the speaker’s main points?

The “So What” phase:

- o In this phase, the learner analyzes the event/presentation/activity to assess what it means to them, why it is important to them, or how they feel about what has been presented/observed.
- o This is the true reflective part of the activity and may be difficult for some learners as it requires that they discuss their feelings as related to the event/information they have experienced.
- o Questions that can be used to assist learners with this phase are: What did you learn? How did what you learned affect you personally? What “lesson” can you take away from the activity/presentation/information? How was what you learned (or experienced) different from what you expected? Can you relate this information to events/experiences in your “real life”? Are there any contradictions to what you previously believed about the issue?

The “Now What” phase:

- o This is the process of taking lessons learned (or insights gained) and looking at how your attitude/view/understanding/*etc.* has changed as a result of the new information and how you might want to change as a result.
- o During this phase, the learner is encouraged to

consider the broader implications of what they have learned, to consider the future, *etc.* Depending on the activity/presentation/event, learners could be encouraged to identify goals or changes they might want to make in their lives to align with what they have learned.

- o Questions that can be used to guide this phase include: How can we use what we learned to make a difference in the future? How are you contributing to the problem? What can you do to help address the problem? What factors will support/hinder you from reaching your goals or to incorporate changes in your life? What can I do to be part of the solution? What appears to be the root cause of the problem/issue? Are there community actions/activities in which I can become involved? What would you like to learn more about, related to this topic/issue? What information can you share with your community or peers that might make a difference?

While this can be used solely as a journaling activity, it can also be incorporated into small group or whole class discussions. For example, after a presentation or significant piece of information has been discussed in class, individuals could engage in the “What?–So What?–Now What?” activity.

- After they have completed the “What?” section, teachers could ask students to share their main points with a partner (see “Two Minute Review” below).
- After the “So What?” phase, students could be asked to share their insights with a partner (see “Think-Pair-Share” below).
- After the “Now What?” phase, students could be invited to share their thoughts/insights/*etc.* with the class. (Note: students should not be required to share at this stage, as this portion of the activity will be deeply personal.) Alternatively, students could be asked to share something their partner said that they found interesting or which they had not thought of before.

Writing Frames

Writing Frames can provide a structured format in which students can reflect on a reading selection, a viewing activity or a presentation. There are a wide variety of writing frames; six suggestions are provided below.

A: Frames to help students summarize a story or retell an event

Students sometimes need assistance with organizing a summary of something they have read or providing a logical sequence to the recounting of an event. The following sample frames may be helpful:

Example 1:

- Although I already knew that ...
 - I have learned some new facts (from our trip/ from watching this video) ...
 - I also learned that ...
 - Another fact I learned ...
 - However, the most important/interesting thing I learned was ...
 - Or, finally, I learned that ...

Example 2:

- I found _____ interesting for several reasons ...
 - I discovered that ...
 - I also learned that ...
 - It was interesting that ...
 - Finally ...
 - As you can see ...

Example 3:

- To begin with ...
 - Next ...
 - Then ...
 - After that ...
 - Finally ...
 - Now ...

B: Explanation Frames

Explanations are written to explain the process or to explain how something works. They are often used in social studies and science. An explanation usually consists of a general statement to introduce the topic and a series of logical steps explaining how or why something occurs.

Example 1: Problem/Solution

- I want to explain why ...
 - There are several reasons for this. The chief is ...
 - Another reason is ...
 - A further reason is ...
 - So now you can see why ...

Example 2: Cause/Effect

- There are differing explanations as to why (how, what, when) ...
 - One explanation is that ...
 - The evidence for this is ...
 - An alternative explanation is ...
 - The explanation is based on ...
 - Of the alternative explanations, I think the most likely is...

C: Procedure/Sequence Frame

Procedures or instructions are written to describe how something is done through a series of sequenced steps. A procedural text usually consists of a statement of what is to be achieved, a list of materials/equipment needed to achieve the goal, a series of sequenced steps to achieve the goal, and often a diagram or illustration.

Example 1:

- I want to explain how ...
 - To begin with/It starts by ...
 - and this makes/means/changes ...
 - After that ...

- and as a result ...
- Next ...
 - Then ...
 - The final result is that the ...

D: Report Frame

Reports are written to describe the way things are. A report usually consists of an opening or general classification, an optional, more technical classification (optional), and a description of the phenomena (qualities, parts and their functions, and habits/behaviors or uses).

Example 1: Compare/Contrast (a more complex version of the Report Frame)

Write the names of the objects being compared/contrasted in columns A and B. List the characteristics being studied in the left hand column. Use a grid to record information prior to writing.

CHARACTERISTICS	A	B
	SOCCER	FOOTBALL
players		
rules		
ball		
gear		

Example 2: Comparison Frame

- Although ... and ... are different ... they are alike in some interesting ways.
 - For example they both ...
 - They are also similar in ...
 - The ... is the same as ...
 - The ... resembles ...
 - Finally they both ...

Example 3: Contrast Frame

- Although ... and ... are both ... they are different in many ways. The ... has ...
 - Another way in which they differ is ...
 - Finally ...

(Using a Venn Diagram can be helpful in this exercise.)

E: Opinion Frames

Essays and paragraphs are sometimes written to present arguments and information from differing viewpoints. Such a piece of writing usually consists of

- ✓ a statement of the issue and a preview of the main arguments (*e.g.*, Our school is trying to decide whether to have uniforms. Some students think that uniforms would improve school spirit and help improve academic achievement, while other students argue the opposite ...)
- ✓ arguments for and supporting evidence (*e.g.*, Many private schools have uniforms and they have great school spirit ...)
- ✓ arguments against and supporting evidence (*e.g.*, Many students feel very strongly that uniforms deny them their individuality ...)
- ✓ recommendation given as a summary and conclusion (*e.g.*, One group wants ... While another group wants ... I think ...)

Note: This simple type of opinion paper leads naturally to the writing of argumentation, a form increasingly used as students go through high school. It is a form of writing that is also a natural extension of oral debate and discussion.

Example: 1

- There is a lot of discussion about whether ...
 - The people who agree with this idea, such as ... claim that ... They also agree that ...
 - A further point they make is ...
 - However, those who have strong arguments against this point of view believe that ...
 - They say that ...
 - Furthermore they claim that ...
 - After looking at the different points of view and the evidence for them, I think ... because ...

Students could make notes using the following format:

The issue we are discussing is whether

...

...

Arguments for	Arguments against
---------------	-------------------

...

...

...

...

My conclusion, based on the evidence ... [OR]

After looking at all the arguments, I think ...

F: Persuasion Frame

Persuasive writing takes many forms, from commercials and slogans to petitions and editorials. The primary purpose is to influence and change opinion or to promote a particular point of view or argument, unlike an opinion paper which considers alternative points of view. A piece of persuasive writing (essay) usually consists of an opening statement (the thesis), often in the form of a position, the arguments, often in the form of points and elaboration, and a summary and restatement of the opening position.

Example 2:

- I think that ... because ...
 - The reasons for my thinking this are, firstly ... so ...
 - Another reason is ...
 - Moreover ... because ...
 - These (facts/arguments/ideas) show that ...

Example 1:

- Although not everybody would agree, I want to argue that ...
 - I have several reasons for arguing this point of view.
 - My first reason is ...
 - A further reason is ...
 - Furthermore ...
 - Therefore, although some people might argue that ...
 - I think I have shown that ...

Appendix E— Sample Rubrics

Sample Rubric for Open Journal Responses

Option – ask students to choose a journal to have evaluated but teachers do record that ALL journals are complete but don't mark every single entry.

Open Journal responses can include:

- Free write
- Persuasive/opinion writing
- Collage or media collection (with an artist's statement)
- Drawing (sketch, cartoon, graffiti, *etc.*), with an artist's statement (less than 100 words)
- List of questions

Rubric level descriptors:

Absolutely, 5; For the most part, 4; Sometimes, 3; Not so much, 2; Hardly, if at all, 1

Journal Response:		
Student:		Level Achieved
Looking in	<ul style="list-style-type: none"> • Thoughtfully considers the topic and connects to self • Demonstrates some original thought; insightful • Reflects on implications of their own response; shows some realization 	
Looking out	<ul style="list-style-type: none"> • Extends on the ideas expressed • Connects to world or text (movie, book, music, art <i>etc.</i>) • Demonstrates clarity and explanation of argument • Uses relevant examples and evidence 	
Teacher Feedback:		

Sample Rubric for Small Group Presentation

- holistic: all students in the group receive the same feedback
- generic: teachers may want to add specific categories depending on the type of presentation

Rubric level descriptors:

Always, 5; Frequently, 4; Sometimes, 3; Infrequently, 2; Rarely, 1

Group:	Level Achieved
Date:	
CONTENT	
The presentation shows evidence of research and primary source material.	
Statistical data is accurate and relevant.	
Focus of the presentation is clear and thoughtful.	
Ideas/arguments are well-developed and organized.	
DELIVERY	
Presenters appear interested, motivated and confident.	
Presenters are able to respond to questions and observations from the audience.	
Presenters demonstrate a high level of preparedness.	
Presenters are easily heard and understood.	
TEAMWORK	
Members of the group collaborated to share and develop ideas.	
Members of the group divided tasks and managed problems to achieve their goal.	
Members of the group were self-directed and sought out resources (teacher, peers, experts, <i>etc.</i>) to aid in their presentation.	
IMPACT	
The presentation raised, affirmed or challenged the audience's level of awareness.	
The presentation elicited questions or responses from the audience.	
Members of the group demonstrated a high level of engagement with their topic/issue (<i>i.e.</i> , felt that they learned from the experience).	
Teacher Feedback:	

Sample Rubric for Small Group Collaboration

- teacher's observation of individual students working in a group
- could be modified to use for peer assessment
- could be modified into a class chart to complete whole class observation

Rubric level descriptors:

Always, 5; Frequently, 4; Sometimes, 3; Infrequently, 2; Rarely, 1

Group: Date:	Students			
	#1	#2	#3	#4
Recognizes need for contributions to facilitate discussion and contributes to sustaining the talk.				
Asks timely questions for elaboration and responds to requests for elaboration				
Expresses viewpoints clearly and with conviction to elaborate views				
Listens attentively; grasps essential information and details				
Teacher feedback:				

Sample Rubric for Self-Assessment

- participation and contributions to discussion activity

Rubric level descriptors:

Absolutely, 5; For the most part, 4; Sometimes, 3; Not so much, 2; Hardly, if at all, 1

Name:	Level
I contribute to keeping the discussion going. Explanation or example:	
I invite others to contribute to the discussion. Explanation or example:	
I ask questions for clarification and I offer further information to explain my views. Explanation or example:	
I willingly express my viewpoint and explain my thinking as required. Explanation or example:	
I listen carefully in order to get a full understanding of the views of others. Explanation or example:	
Describe some of the ways you think you contribute to your group/class discussion:	
Describe some areas you think you can improve on:	
Teacher Feedback:	

Appendix F — Cooperative Learning Strategies

The following brain-friendly teaching/learning strategies are drawn from Cooperative Learning structures. While simply using the following structures does not constitute a true “cooperative learning” approach, these structures provide students with the opportunity to become actively engaged in their learning as well as providing opportunity for group processing of the subject matter. For more information on the Cooperative Learning approach as well as on these and other cooperative learning activities refer to the following websites (available at time of printing): <http://www.utexas.edu/academic/diia/research/projects/hewlett/cooperative.php> or <http://edtech.kennesaw.edu/intech/cooperativelearning.htm>

Quiz-Quiz-Trade

This activity is often used after several lessons have been covered or at the **end of a topic** or unit to review what has been covered in class. Questions and answers, based on the information from the lessons, are written on index cards or pieces of paper.

Preparation: To set this up, the teacher has to create a set of question and answer cards on the material that was covered. (Alternatively, students can create the cards). You need at least one of these cards per student. It’s good to have extras. Early on in a unit, you may need to make duplicate cards to ensure each student has a card.

Process: This is a partner activity and requires students move around the classroom. (See Think-Pair-Share for cues to help students decide who goes first).

To start the Quiz-Quiz-Trade, hand out one card to each student, so that each student has a question and the answer. Then ask all students to stand up and partner with another student. In each pair:

- QUIZ: Student #1 quizzes Student #2. If Student #2 answers correctly, Student #1 gives positive feedback. If Student #2 answers incorrectly, Student #1 says “It’s okay” and provides the correct answer.
- QUIZ: Then Student #2 quizzes Student #1.
- TRADE: After they both quiz each other with their questions, they switch/trade their questions and go on to pair up with someone else. This process is repeated at least 5 times and then students return to their places.

The Cocktail Party

This is a modification of the Quiz-Quiz-Trade activity. It is used as a **pre-instructional strategy** to familiarize students with the upcoming content.

Preparation: To set this up, the teacher has to create a set of question and answer cards on the material that will be covered.

Process: Students are provided with the question/answer cards before they have covered the material in class.

They pair up as in the Quiz-Quiz-Trade activity and each student takes a turn providing their partner with the information contained on the card (*i.e.*, the content on the card provides the “small talk” that takes place in a party setting).

After each partner has shared their information, they trade cards and partner with someone else. The “small talk” continues for a pre-set amount of time or until all students have heard and/or read most of the cards.

At this point the teacher can retrieve the cards or leave them with the students so they can use the information in the lesson. For example, as the teacher is teaching the lesson, using preplanned questions she can solicit the information from students that is contained on the cards. In this way, the students play a more active role in the process.

Think-Pair-Share

This is a very straightforward strategy that allows students to engage in individual and small-group thinking before they are asked to answer questions in front of the whole class. The result is that student answers are more detailed and accurate and participation is 100%.

The Think-Pair-Share strategy can be used:

- before the topic is introduced to assess how much students already know,
- to remind students of material already covered,
- or to get students thinking about the topic.

T-P-S can also be used at anytime to check for understanding, to break up long periods of sustained activity, or whenever it is helpful to share ideas.

Process:

1. The teacher poses a question to students and gives them some time to independently think of their answer (usually 30 to 60 seconds).
2. After students have had time to think of their answer, they partner with a nearby student and discuss their responses or ideas to the questions or problem that was posed.
3. During the discussion, students have chance to verbalize their understanding, confirm what they understand, or determine what they do not understand.
4. There are three variations to this procedure:
 - the teacher may set time limits for each student to talk while the partner listens;
 - the teacher may ask students write their thoughts down before they discuss with their partner (these can be collected);
 - the teacher can assign or vary partners to keep students from interacting with the same students or to ensure all students are included by their peers.
5. After students have discussed their thoughts/ideas with their partner, they can be asked to share with the whole class. Students could also be asked to share something interesting that their partner said that increased their understanding or appreciation of the topic/issue.

Tip: To ensure little time is lost as students decide who will begin the sharing, the teacher can use a variety of cues to help them decide. For example the teacher could say: “the tallest person will start”, “the person with the most/least jewelry on will start”, “the person with the longest/shortest hair will start”, “the youngest/oldest person will start”, etc.

For more information on how this strategy can be modified and implemented in a variety of subject areas, refer to <http://olc.spsd.sk.ca/DE/PD/instr/strats/think/>.

Two-minute Review

This is a variation of the Think-Pair-Share strategy and provides students with an opportunity to **process new information**.

Process: To use this approach, stop any time during a mini-lesson or discussion and allow teams or pairs two minutes to review what has been said with their group.

Partner approach: Teachers could set this up by saying “turn to the student next to you; each of you take 1 minute to review what we just discussed for the past 10 minutes; assume your partner was out of the room and missed what we talked about (or wrote notes on); summarize the information; your partner will listen to you and when it is their turn they will also summarize, including anything you left out; I’ll announce when 1 minute has passed and when to switch”. (See Think-Pair-Share for cues to help students decide who goes first).

Small group approach: Another way to use this method is to arrange students in groups of 3 or 4 and extend the time frame to three minutes. Group members can ask a clarifying question to the other members or answer questions of others. (e.g., After discussing a multiple step process, such as a case study about genetically modified food or stem-cell research, students can form teams and review the process or ask clarifying questions.)

Numbered Heads

Process:

- The teacher assigns student to a team of four.
- Each member of the team is given a number of 1 through 4. The team is given a question to answer.
- The team works together to answer the question ensuring that all members of the team know the answer and can verbally answer the question.
- The teacher calls out a number (*e.g.*, “number three”) and each student with #3 is challenged to respond. The teacher can vary which “number” answers from each group.

Inside-Outside Circle

In this activity students are divided into two groups. One group (minimum 3 students) forms an inside circle and the second group forms a circle around them (the outside circle). The strategy is used to encourage discussion between the students.

Process:

- The teacher poses a question, which the students are challenged to discuss, brainstorm about, *etc.*
- Students think about how they will respond to the question and then the person on the inside of the circle tells the person on the outside of the circle their response. Once they finish sharing they say “Pass”. Then the person on the outside shares their ideas, or extends on the inside person’s comments.
- Then (at the teacher’s direction) the outside circle rotates one position to the left or right. In this way the students will have a new person to discuss the same (or a different) question with.

K-W-L Chart

This method can be used to introduce a topic, ascertain what students already know about a topic, or to activate students’ prior knowledge, *etc.*

This can be used as a whole class activity (*i.e.*, with the teacher or student recording what the students volunteer in a chart on the board) or individually as students complete the chart themselves.

Process: Either draw the following chart on the board, ask students to create the chart in their notebooks, or print a copy for students to use:

K	W	L
WHAT I ALREADY KNOW ABOUT THE TOPIC	WHAT I WANT TO KNOW (OR WONDER ABOUT) THE TOPIC	WHAT I LEARNED ABOUT THE TOPIC

- To activate students’ prior knowledge, begin by asking them what they already **Know** about the topic and list it in the appropriate column. This can be followed by asking students to share what they know with the class or with a partner.
- To create interest or anticipation in the new topic, students should identify questions they have on the topic, items they would like clarified, *etc.* (*i.e.*, **Want** to know)
- After the topic has been discussed/completed, students return to the chart and record what they have **Learned** and compare this with the other two columns. Did they learn anything new? Were their questions answered?

This strategy works best for research projects and for activities where students will be reading on their own. It is also a good strategy to use to introduce a topic.

Jigsaw

This strategy promotes sharing and understanding of ideas and concepts found in texts.

Preparation: In this strategy the teacher divides a project, piece of reading (*e.g.*, an article), or other activity, into 3 to 5 parts.

Process: Arrange students in groups of 3 to 5 depending on the class size and the project they are undertaking. This is their **Home Group**. Some groups may have duplicate numbers if there is an uneven number of students in the class. Each student in each **Home group** is assigned a number: 1, 2, 3, 4, or 5.

Expert Group work: Reorganize the students with the same number into **Expert Groups**. The students gather in their **Expert Groups** to process or read selections specific to the assigned topic. Students are to read, recall, reread, take notes, construct graphic organizers for the main ideas and details, and create any visuals they could use to teach others about the topic. The members of the **Expert Group** work to become “experts” on that topic/issue.

- For example, if an article had four main sections, home groups of 4 would be created. Each member of the group would be assigned a section of the article corresponding to their number. Expert groups are formed in which all members will read the section, discuss it, ensure they all understand it, create notes, examples, *etc.* to ensure they are prepared to explain it. The time devoted to this will depend on the difficulty and complexity of the article.

Reporting to the Home Group: After the expert group members have read, summarized, and have a complete understanding of the information, they return to their **Home Group**. The #1 Experts teach the **Home Group** about the topic/section they were assigned; then #2, #3, #4 Experts teach the group about the topics they were assigned.

After all the “experts” have finished teaching the group, the home group will have all the detail and information on the topic as if they had completed the assignment individually.

Refer to <http://www.jigsaw.org/steps.htm> or <http://olc.spsd.sk.ca/DE/PD/instr/strats/jigsaw/> for more information on how to make the most effective use of this strategy.

Three-Step Interview

Three-step interviews can be used as an **introductory activity** or as a strategy to **explore concepts in depth**. It is a strategy that is very effective when students are solving problems that have no specific right answers.

This strategy helps students personalize their learning and listen to and appreciate the ideas and thinking of others. The “interviewer” has to engage in active listening and then paraphrase the comments of the “interviewee”.

Process:

1. In step one the teacher presents an issue or topic about which varying opinions exist and poses several questions for the class to address.
2. Step two, one of the students assumes the role of the interviewer and the other becomes the interviewee. The interviewer asks questions of the interviewee to elicit their views or ideas on the issue/topic, within a specified time period. The interviewer paraphrases the key points and significant details that arise.
3. Step three, after the first interview has been completed, the students’ roles are switched.
 - Example: after viewing a video on an environmental issue, interviews can be conducted to elicit student understanding or views.
 - Example: after reading about or discussing a concept or issue, students could engage in the interview process to clarify their understanding.

Extension: Each pair of students can team up with another pair to discuss each other's ideas and to share interesting points that were raised.

After each student has had a turn, the pairs can be invited to share points that they found interesting with the class. After all interviews have been done, the class writes a summary report of the interview results. This could be done individually or as a whole group activity.

Roundtable

The Roundtable is a useful strategy for brainstorming, reviewing, or practicing a skill.

Process:

- Students are arranged in a group of 4 to 6. Each group is provided with a single sheet of paper and pen. The teacher poses a question or provides a starting point.
- Students take turns responding to the question or problem by stating their ideas aloud as they write them on the paper. It is important that the ideas be vocalized for several reasons:
 - ▶ silence in a setting like this is boring;
 - ▶ the other team members are able to reflect on the thoughts of the other students;
 - ▶ greater variety of responses will result because teammates learn immediately that someone has come up with an idea that they might have been thinking of; and
 - ▶ by hearing the responses said aloud students do not have to waste valuable brainstorming time by reading the previous ideas on the page.
- Students continue to pass around the paper until time expires or until a group runs out of answers. Team members are encouraged not to skip turns. However, if their thoughts are at a standstill, they are allowed to "Pass".

Sample roundtable activity: A political cartoon depicting a philosophical or satirical comment could be

displayed. One student draws or writes a reaction or explanation of what is being viewed and then passes the paper to other members of the team for them to react to what they see in the visual.

Roundtable is most effective when used in a carefully sequenced series of activities. The brainstorming can reinforce ideas from the readings or can be used to set the stage for upcoming discussions. The multiple answers encourage creativity and deeper thinking among the team members.

Round Robin Brainstorming

Process:

- The class is divided into small groups of 4 to 6 students per group with one person appointed as the recorder. The teacher poses a question with many possible answers and students are given time to think about answers.
- After the "think time", members of the team share responses with one another in round robin style. The recorder writes down all the responses or reactions of the group members.
- The person to the left of the recorder gives their response and the recorder writes it down. This is similar to Roundtable except that one person records the responses.
- Each person in the group in order gives a response until time expires.

Sample roundtable activity: A political cartoon depicting a philosophical or satirical comment could be displayed. One student records the reactions or explanations by each group member.

Sample roundtable activity: Students could be asked to list the pros and cons that a particular practice has on society.

Appendix G — Suggested Instructional Strategies (expanded)

Assigned Questions

- students are provided with a set of questions related to new or previously learned material
- may be a component of problem solving
- may be a component of critical thinking
- may be used for reflection and self-evaluation
- may be an element of programmed instruction
- may be used in guided inquiry
- may be used as the starting point for cooperative group learning
- may be used to guide/direct learning, exploration, experimentation, and/or observation

Authentic Experiences

- are real life learning experiences that require careful planning
- factors such as safety, liability, weather, transportation costs, time and availability have to be considered
- may include field trips, school visitations by outside resource people, surveys, and field observations

Brainstorming

- a process of rapidly generating ideas or responses
- all contributions are accepted without judgement or comment (this includes nods of agreement) and without editing the words of the contributor (this includes “you mean to say ...”, or “this is the same as ...”)
- a means of extending boundaries and encouraging creative ideas
- a means of quickly getting a wide range of ideas on a topic or issue

- can be used as a precursor to refining or categorizing ideas/responses
- is intended to capitalize on the varied experiences, knowledge, and ideas of the group
- can be playful with many ideas encouraged and accepted

Concept Attainment

- students are provided with data about a particular concept generated by themselves or their teacher and are encouraged to classify or group the information and to give descriptive labels to their groupings
- students link the examples to the labels through their own reasoning and form their own understanding of the concept
- students participate actively in their own learning
- students organize and manipulate information
- students create new and expanded meaning of their information

Conferencing

- occurs when teachers meet with individual or small groups of students to discuss learning tasks or concerns
- encourages students to talk about their work in a non-threatening low-risk environment where points of view are shared and respected
- allows for an open exchange of ideas between the teacher and the learner
- teachers can guide students and provide feedback
- encourages students to reflect on their learning, engage in self-assessment and make decisions on how to approach tasks

- is an appropriate setting for encouraging independence and promoting self-confidence

Computer-Assisted Instruction

- an instructional mode which incorporates the computer into the lesson plan
- can include word processing, drill and practice, tutorial, problem solving, critical thinking, creativity, simulation
- may be an independent or cooperative small group learning
- may be appropriate for individualizing instruction
- fosters active involvement
- allows for independent and collaborative decision-making
- appropriate for programmed instruction

Cooperative Small Group Learning

- an approach to organizing classroom activity so that students can work collaboratively and build on one another's strengths and ideas
- group members share clearly defined roles and are interdependent in achieving the main goal
- students learn the importance of respecting individual views and maintaining group harmony
- students must be working towards a common goal
- success at achieving the goal depends on the individual learning of all group members
- the teacher's role is primarily that of facilitator in guiding students as social groups and learning teams as they engage in activities such as identifying problems, generating solutions and practicing skills
- successful use of this method requires professional development and practice

Demonstrations

- can provide verbal and non-verbal information, techniques and procedures
- can illustrate the end product of a process
- can provide a model for reproducing a procedure or creating a product
- can involve the collection and organization of materials
- allow students to receive information through tactile and visual means

Explicit Teaching

- direct telling
- making statements
- giving information or directions
- explaining procedures
- is largely teacher-centred
- can be large group or small group
- can be used to motivate the learner
- may stimulate reflection
- can challenge the imagination
- may develop curiosity and a sense of inquiry
- may include teacher talk, lecture approach, mini-lessons, instruction giving

Field Trips

- involve teaching/learning activities at a site other than the classroom
- involve activities that are appropriate for learning outcomes
- require careful planning in order to make the link to learning outcomes
- should spark student interest, discussion, questioning
- may provide "hands on" experience

- may involve application of previous knowledge or acquisition of new knowledge
- should involve follow up such as reports, discussions, and/or evaluation
- reflect the real world and put learning in the context of the community
- broaden the student's view

Guided Practice

- can be individual, student centred and needs based
- may be small group
- used to monitor student performance and practices (*e.g.*, signs of respect, appropriate behaviour)

Inquiry

- elements of inquiry include thinking, reflecting, developing relevant questions and planning appropriate strategies for generating answers and explanations
- allows students to experience and acquire processes through which they can gather information about the world in a variety of ways from a variety of sources.
- allows for a high level of interaction among the learner, teacher, the area of study, available resources and the learning environment
- allows students to act upon their curiosity and interests
- encourages students to formulate questions and analyse situations/problems/information
- calls upon prior learning
- encourages hypothesis development and testing (new questions and hypotheses often emerge as the inquiry continues)
- students make inferences and propose solutions

- students realize that there is often more than one answer to a question or more than one solution to a problem.

Interviewing

- involves individuals, pairs or small groups collecting information from peers, younger students, older students or adults
- involves focused thought and active thinking to develop questions and explore ideas
- requires interpersonal and listening skills; the student must listen respectfully, react to, and interpret the views and experiences of others
- uses language to articulate and clarify one's thoughts, feelings, and ideas
- allows exchange of ideas, increased understanding and new awareness of a previous knowledge
- involves follow up activities

Learning Contracts

- teacher may initially provide terms and conditions, identify resources and set basic timelines
- the student, parents and other professionals may be involved in designing the contract (such as expectations, conditions, evaluation criteria, time frame, consequences)
- provide a method of individualizing instruction
- can be designed so that students operate at the academic level and the pace most suited for them
- can help students make reasoned choices, become increasingly independent learners and take responsibility for their own learning
- must be age and situation appropriate

Personal or Self-reflection/Journaling

- allows individuals to think about their level of knowledge, their beliefs and values
- facilitates personal goal setting and planning
- supports privacy
- respects the personal quality and uniqueness of the individual
- allows students to reflect on what they have learned or are about to learn
- allows students to pose questions and react to learning experiences

Problem Solving

- application of knowledge, skills, ideas, resources and processes to generate one or many solutions to a problem
- may follow the scientific method
- can be a practical skill
- may include strategies such as trial and error, brainstorming, What if/I suppose, attribute listing, forced relationships, idea check list and imaging

Projects

- teachers should provide examples of any projects required and clearly discuss all guidelines
- include assigned tasks that provide an opportunity for all learners to consolidate/synthesize learning from a number of disciplines or experiences
- usually involve learners, alone or in small groups, working on a task for an extended time period (the actual time frame may depend to some degree on the ages of the learners involved), usually to produce a tangible product such as a model, a demonstration, a report or a presentation

- may be used to relate knowledge to their own experiences and/or to the broader community
- may involve research
- usually involves extending/enriching/reinforcing learning
- should be focused (*e.g.*, subject matter concept, interdisciplinary theme, action projects)
- should include clearly defined task descriptions such as: interview, compare opinions, make a model, find contrasting views on, create a dramatic presentation, *etc.*
- should include a criteria for planning and evaluation
- students should clearly understand the requirements of the project
- should include clear time lines, and ongoing progress reports

Questioning

- can be used to diagnose recall and comprehension skills
- can be convergent and/or factual
- may draw on prior learning experience
- can determine the extent to which lesson outcomes are being achieved
- provides practice
- aids retention of information or processes
- stimulates thinking
- encourages expression
- can be empirical
- can be conceptual

Role Play

- is the spontaneous or practiced response to a given situation or theme where the learner attempts to speak, feel, behave like the character they portray
- is designed to illustrate situations in which the behaviour of individuals is the critical factor
- can be part of a game or simulation activity
- is an approach to addressing interpersonal problems and practicing social and communication skills
- allows for high level of student engagement
- promotes independent and self-determined behaviour
- promotes increased understanding of the views, positions and feelings of others
- facilitates attitudinal and behavioral change
- encourages cooperation and sharing
- can be used to resolve decision-making dilemmas, resolve conflict, determine appropriate behavioral responses
- teachers must define the problem situation and problem clearly as well as give very clear instructions

Simulation

- allows for types of experiments/activities that cannot take place in the real environment
- presents an artificial problem situation or event which represents some aspect of reality
- removes risk and reduces safety considerations
- the level of complexity is purposefully reduced so that students may become directly involved with underlying concepts
- may involve the use of models, game formats, structured role play or an interactive video or computer program

