

**A GOOD
QUESTION
IS AN INVITATION TO
THINK**



**THE ROLE
OF EDUCATION
IS TO POSE THE RIGHT
QUESTIONS**

IQ

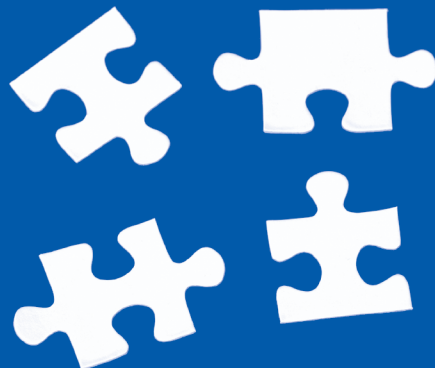
**A PRACTICAL GUIDE TO
INQUIRY-BASED LEARNING**



**LEARNING
BEGINS WITH A
QUESTION**



**CULTIVATE A
CURIOUS
CLASSROOM**

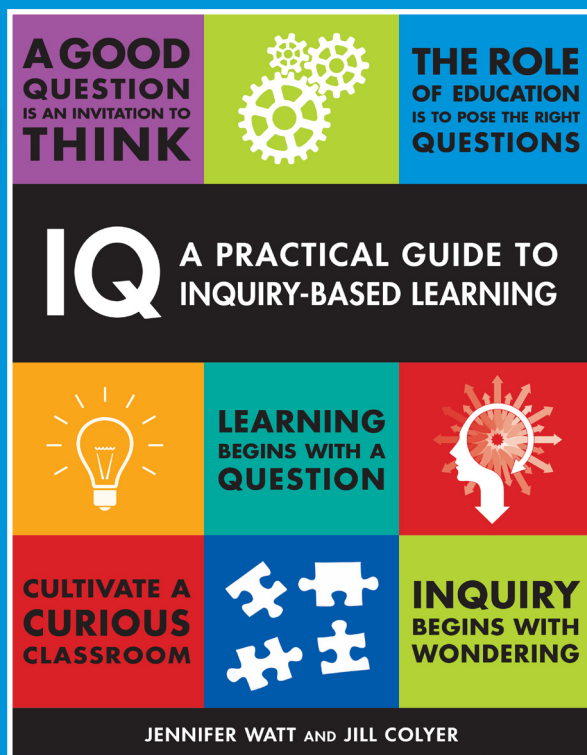


**INQUIRY
BEGINS WITH
WONDERING**

JENNIFER WATT AND JILL COLYER

SAMPLER

NEW!



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IQ: A PRACTICAL GUIDE TO INQUIRY-BASED LEARNING

By Jennifer Watt & Jill Colyer

This professional resource provides a clear and practical tool for Grades 7 – 12 social studies, history, geography, and civics teachers!

Highly visual and accessible, it explains the inquiry process and offers practical suggestions and tools for successfully implementing inquiry-based learning in the classroom.

FEATURES

- The Table of Contents is organized into key questions teachers have about inquiry-based learning.
- Assessment practices are embedded in every chapter, and a separate chapter provides overall assessment planning ideas.
- Many examples throughout the book provide models for teachers.
- Authentic case studies demonstrate and illustrate concepts.
- The "Ensuring Success" feature anticipates obstacles and challenges that teachers may face, and provides tips to increase success.
- Graphic elements (tables, charts, etc.) provide information in an easily accessible format.
- Ready-to-use student and teacher reproducibles offer support for instruction and assessment.

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CHAPTER 3

F O R M U L A T E

QUESTIONS

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- 

3.2

What does a good inquiry question look like?

The first step in initiating inquiry-based learning in your classroom is to formulate good discipline-based inquiry questions for your course or course unit. Why is this an important starting place for better pedagogical practice? In their book *Essential Questions*, Jay McTighe and Grant Wiggins (2013) give several good reasons:

- The use of questions signals to students that inquiry is the goal of learning in your class, and makes it more likely that a unit of study will be intellectually engaging.
- The use of questions forces us to clarify and prioritize what is truly important in terms of learning outcomes for our students.

For the purposes of this book, we will focus on developing questioning that relates specifically to an inquiry. A selection of inquiry questions for history, geography, and civics have been provided to help you think about the kinds of questions that may entice your students to think deeply about the core concepts and supporting content of your discipline. As you read the questions, identify the core concepts and consider the supporting content that you would use to pursue this inquiry.

EXAMPLES

History inquiry questions

- Is history truth or fiction?
- How can we better understand the people of the past?
- How do we know what we know about the past?
- What are the significant characteristics of Canada's historical identity?

EXAMPLES

Geography inquiry questions

- Why does Canada look the way it does?
- Why do people disagree about how to use resources?
- Is it possible to create sustainable communities?
- What are the significant characteristics of Canada's natural identity?

EXAMPLES

Civics inquiry questions

- Should absolute freedom be possible?
- Who has political power and why?
- What are the significant characteristics of Canada's political identity?
- What are the non-negotiable attributes of a democracy?

Developing effective inquiry questions

Previously, in Chapter 1, we outlined some of the fundamental qualities of a good question. These qualities are detailed in John Barell's book *Developing More Curious Minds* (2003):

- A good question is an invitation to think (not recall, summarize, or detail).
- A good question comes from genuine curiosity and confusion about the world.
- A good question makes you think about something in a way you never considered before.
- A good question invites both deep thinking and deep feelings.
- A good question leads to more good questions.
- A good question asks you to think critically, creatively, ethically, productively, and reflectively about essential ideas in a discipline.

McTighe and Wiggins (2013) propose similar criteria to Barell's, and add the following criteria. In their view, a good question is:

- open-ended; typically there is no final, correct answer
- points towards important, transferable ideas within (and sometimes across) disciplines

Q&A

Should I differentiate my inquiry questions for different levels of learners?

No. Good inquiry questions are accessible to all students; they ask students to think and are respectful of their capacity to do so. Different learners may answer a question more deeply or thoughtfully than others, but all learners should engage in the same inquiry in order to share their thinking with each other. Different learners will require different amounts of scaffolding and modelling in their understanding of concepts, inquiry skills, and development of inquiry dispositions.

- requires support and justification; not just an answer
- recurs over time; the question should be revisited

Let's illustrate with an example. Perhaps you're thinking about changing your geography unit on the topic of land use in Canada from a content-oriented approach to an inquiry-based approach. You begin with the question, "What are the characteristics of land use in Canadian communities?" and then realize that this question asks only for content recall and can be answered through an internet or textbook search.

You then revise the question to "What is the significance of land use in Canada?" and then think the question is too similar to the first and that student responses to the question may not involve the expected level of critical thought.

You take another shot and come up with, "What are the key characteristics that help create a livable community?" You wonder if students will be engaged by that question. You sense that the question has potential since you can envision some of the great source material and community guest speakers that would make the inquiry come to life for students and allow for deep thinking and feeling.

Finally after much thought and a discussion with a colleague, you settle on the question:

How can we create more livable communities?

You feel that this question will engage students' genuine curiosity. The question is an invitation to think and take action, not to simply recall, summarize, or detail facts. The question also leads to more good questions. You think about the types of cases that the students may want to investigate in order to answer the question, such as current community land-use issues.

Integrating inquiry questions into your course

We suggest that you create four to five inquiry questions to ground a course, although there is no formula for the number of inquiry questions in a course. For every unit of study of significant length (over two weeks of time), you may require two to three additional questions that reflect both a specific topic/theme or core concepts of the course. The inquiry questions that ground your course should be reflected in most of the unit inquiry questions but not necessarily all of them.

When you draft your course and unit inquiry questions, check to see that they align. If they do not, you may want to revise or drop some of

An inquiry question is an invitation to think and take action, not to simply recall, summarize, or detail facts.

your questions. Some teachers want to know if students should be the creators of the unit questions. As the teacher, you have the required expertise in the discipline and know how to pose an intellectually engaging question that will keep the learning moving forward. As students get more skilled at inquiry learning, they can certainly be expected to create additional questions to guide their inquiry (see Section 3.3, p. 14).

You do not have to pose inquiry questions for every lesson or each activity. If there are too many layers of inquiry questions, students may lose focus and become confused as to which question is the most important for them to answer.

So where can you go for help with creating inquiry questions? Curriculum documents, textbooks, and other resources often provide inquiry questions and/or big ideas and concepts that can be adapted into powerful inquiry questions.

We suggest working with colleagues to create overarching course inquiry questions that connect closely to core concepts. By working through the fundamental question “Why is _____ (history, geography, and so on) important?” along with mandated curriculum documents, you and your colleagues who teach the same subject can create powerful course questions. The process involves working through what you believe to be important essential skills, core concepts, and supportive content. This challenging stage can take some time and effort, but may result in greater student engagement and achievement.

A case study on p. 11 highlights the beginning of a collegial conversation about inquiry questions for a history course. *Figure 11: Inquiry-focused course overview—Civics* provides suggested course inquiry questions, unit inquiry questions, core concepts, and critical content for a course in civics. What strengths do you see in the proposed civics inquiry model? What challenges? What changes would you propose?

ENSURING SUCCESS

Making questions visible

Course inquiry questions should be posted in the classroom and included in written course outlines so that students can immediately see that they will have to think through the answers—not memorize

provided answers. Course inquiry questions can also be used as sections in student portfolios and as final assessment questions in end-of-course or unit evaluations.

Course inquiry question	Unit of study inquiry questions	Core concepts	Critical content
If you didn't live in Canada, would you want to?	Are you a good citizen? Is citizenship about more than where you were born? Is Canada a great country to live in?	citizenship, identity	<ul style="list-style-type: none"> Canadian citizenship and identity active citizenship fundamental beliefs and values of democracy changing views of citizenship global citizenship
How should we balance individual rights and the common good?	Should governments limit individual rights and freedoms for the common good? What can and should happen when rights are abused?	common good, human rights	<ul style="list-style-type: none"> rights of Canadians how rights relate to the common good conflicts between rights and the common good standing up for rights rights abuses
How should our government work?	Should our government be more democratic? Should our government do more or less?	government, power	<ul style="list-style-type: none"> how government works left- and right-wing perspectives how different beliefs and values affect government Canadian political spectrum how government affects our lives Aboriginal self-government electoral system deciding who to vote for voter apathy ways to influence government
Is our justice system just?	Can one justice system look after everyone's interests? What can and should be done when the system fails?	justice, equality	<ul style="list-style-type: none"> Canadian justice system criminal and civil law problems and challenges within the justice system
Want change? What should you do about it?	Would you act to right a wrong? Is illegal action ever justified to bring about a desired change?	power, privilege, activism	<ul style="list-style-type: none"> active citizenship attributes and examples of an active citizen legal means to bring about change illegal actions to bring about change

FIGURE 11: Inquiry-focused course overview—Civics

SOURCE: Course inquiry and investigation questions adapted from *Canadian Investigations: Civics and Citizenship*, Oxford University Press (2014).

CASE STUDY

Creating powerful inquiry questions

Sean, Matt, and Elisha are teaching Grade 10 Canadian history this year. They are working together to create inquiry questions for the course. They have already decided on two overriding course questions that focus on historical evidence, historical significance, and Canadian identity:

1. How do we know what we know about Canada's past?
2. What are the significant characteristics of Canada's historical identity?

ELISHA: *I've always taught the course chronologically, like the curriculum suggests, so I have five units to plan for.*

SEAN: *I tried a thematic approach last year and I had five units as well. I think thematic works better for an inquiry focus. I know you feel differently.*

MATT: *Well, I did the same as Elisha and I find the kids get confused with themes since they are bouncing all over the decades. Elisha and I have themes within our chronology. Why don't we record our unit titles on some chart paper and see if we can work up some decent questions to start?*

	Matt and Elisha's chronological units	Sean's thematic units
Unit 1	WWI, 1920s and 30s	Canada and the world
Unit 2	WWII	French-English relations
Unit 3	1946–1968	Aboriginal perspectives
Unit 4	1968–1984	Technological, economic and social change
Unit 5	1984–present	Canada today

FIGURE 12: Chronological and thematic units

ELISHA: *Wow, this looks completely different. Maybe we can start with a possible inquiry question for Unit 5 since they seem the most similar.*

SEAN: *Okay, so what are the central ideas that will get kids thinking about Canada today but link to our past?*

MATT: *Probably identity. You know...is there a Canadian identity? Maybe something about immigration, technology, and the economy?*

continued

ELISHA: *Maybe the question should ask them to consider Canada's future in some way?*

SEAN: *How about, "What will my life be like in Canada ten years from now?" or "How will Canada change and how will it be the same in 20 years?"*

ELISHA: *I like the first one! It makes it personal and not too far in the future to become unmanageable.*

MATT: *So would we provide them with current sources on immigration, economy, and technology issues and let them choose what to investigate?*

SEAN: *That could work. The question does help to consolidate the learning in the course and it ties in to our second overall course question. It focuses on change and continuity as well, which are important concepts. Maybe the second question is better, I'm not sure.*

MATT: *Well, let's leave that one for now. For our unit on the Depression and WWII last year, we asked the questions, "Who and what was to blame for WWII?" and "How did Canada change as a result of the war?" I think we can stick to those. What do you do for your "Canada and the world" unit, Sean?*

SEAN: *I focus on peace, conflict, and prosperity. I didn't use any inquiry questions, just topics for research on the war, the Cold War era, and peacekeeping era. Thinking about it now, something like "When should Canada fight?" or "When should Canada have fought?" would be interesting. Kids could look at WWII, the Korean War, peacekeeping, the war in Afghanistan, our refusal to join the US in Iraq, as well as the genocide in Rwanda or the conflict in Syria. That would work for me.*

ELISHA: *I really like that idea. Maybe we should try one of Sean's questions, Matt. What do you think?*

MATT: *I'm not sure I want to give up all the stuff we created last year, plus the textbook is chronological. The kids really did well on our unit last year. Do we have to do the same thing?*

SEAN: *Maybe not, but it would be good to compare our students' work and be able to discuss their progress in the inquiries.*

	Chronological units	Possible inquiry questions	Thematic units	Possible inquiry questions
Unit 1	WWI, 1920s and 30s	Were the sacrifices of Canadians in WWI justified? Who prospers when and why?	Canada and the world	Was and is Canada a peaceful nation? Should Canada have fought?
Unit 2	WWII	Did Canada emerge as a stronger or weaker country after WWII? Who or what was to blame for causing WWII?	French-English relations	Should Quebec separate? Is English Canada unfairly privileged?
Unit 3	1946–1968	Was Canada a peaceful nation? How did technology change us? Should the Canadian government have taken on more responsibilities for its citizens?	Aboriginal perspectives	Can Aboriginal peoples reclaim what they have lost? Should the present-day government address historic wrongs? How can Aboriginal peoples and non-Aboriginal peoples co-exist as equals?
Unit 4	1968–1984	Which event during this period made the most significant contribution to Canadian identity? What impact has regionalism had on Canada?	Technological, economic, and social change	Why do times of change cause both conflict and cooperation? What factors contributed to the development of social movements in Canada?
Unit 5	1984–present	What impact has changing demographics had on different groups in Canada? Where do you see yourself in the Canadian narrative?	Canada today	Is Canada a first-rate or second-rate country? Should Canada be a good global citizen? What will my life be like as a Canadian, ten years from now?

FIGURE 13: The result—Working draft of inquiry questions in Canadian history

- Q** What are the assumptions and arguments of Matt, Elisha, and Sean? Do you share or challenge these assumptions and/or arguments?
- Q** Consider the suggested course structure, unit structure, and inquiry questions and critique them. Suggest revisions or alternatives.
- Q** Create and revise as many inquiry questions as appropriate for a course that you teach.

REPRODUCIBLE 4: Asking Questions about Photographs

Name: _____ Date: _____

Task: _____

Work collaboratively through the following steps to try to create deep questions based on your thinking about the photograph.

1. Have a discussion about what you observe is happening and what you infer is happening.
2. Each person in the group should create 3–5 questions based on your curiosities arising from the photograph.
3. After everyone has a list of preliminary questions, collaborate to choose 3–4 of these initial questions to “perfect” them into deep inquiry questions.
4. For each of your “perfected” questions, list 2–3 additional questions that arise from the perfected questions.

-
1. This is what we see in the photograph (observations):

This is what we infer from what we see in the photograph (inferences):

2. My questions about the photograph:
- _____

3. Our top 3 deep inquiry questions	Do our 3 questions meet these criteria for a deep inquiry question?
1.	<input type="checkbox"/> An invitation to think (not recall, summarize, or detail). You can't find the answer through a simple web search. <input type="checkbox"/> Requires support and justification, not just an answer. <input type="checkbox"/> Open-ended; typically there is no final, correct answer. <input type="checkbox"/> Arises from genuine curiosity and confusion about the world. <input type="checkbox"/> Makes you think about something in a way you never considered before. <input type="checkbox"/> Invites both deep thinking and deep feelings. Asks you to think ethically (what is right and wrong). <input type="checkbox"/> Leads to more good questions.
2.	
3.	

4. Additional questions that arise from the deep inquiry questions:
- _____

REPRODUCIBLE 5: Asking Questions about Sources

Name: _____ Date: _____

Speaker/Source: _____

Answer the following questions individually.

1. What is your purpose in asking questions of this person or source?

2. What are your questions?

3. What types of questions have you asked?

Answer the following questions in a group.

4. Compare your questions with those of other students. What points of view and assumptions do the questions reveal?

5. How do the questions link to important concepts and content that we have discussed?

6. How could you improve one of your questions?

REPRODUCIBLE 6: Quotes about Questions

Name: _____ Date: _____

Individually reflect on the following quotes and answer these questions.

1. Consider what ideas in the quotes you agree with and provide examples of the quotes' relevance to your life inside and outside the classroom. Use the questions at the bottom of the page to stimulate your thinking.
2. Think about why questioning will be important in this classroom and how we can improve as questioners.
3. Join with a partner to discuss your thoughts. Note how your conversation with a partner was different after thinking about questioning.

"The most important question in the world is, 'Why is the child crying?'" **Alice Walker**

"The power to question is the basis of all human progress." **Indira Gandhi**

"It is better to debate a question without settling it than to settle a question without debating it." **Joseph Joubert**

"Life's most persistent and urgent question is, 'What are you doing for others?'" **Martin Luther King, Jr.**

"The question isn't who is going to let me; it's who is going to stop me." **Ayn Rand**

"If love is the answer, could you please rephrase the question?" **Lily Tomlin**

"A wise man can learn more from a foolish question than a fool can learn from a wise answer." **Bruce Lee**

"The great question that has never been answered, and which I have not yet been able to answer, despite my thirty years of research into the feminine soul, is 'What does a woman want?'" **Sigmund Freud**

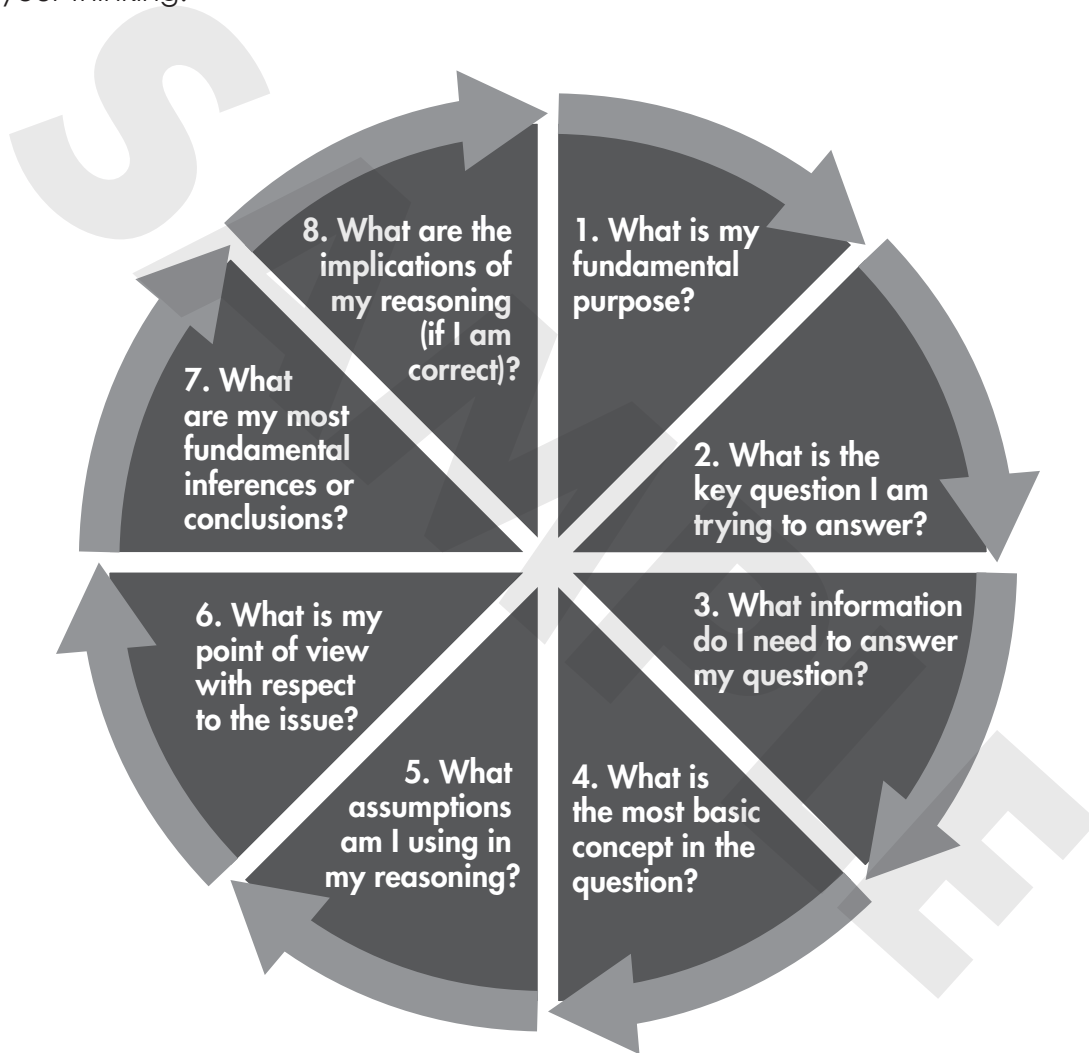
1. What concept is at the root of these questions?
2. What "type" of question is being asked? Ethical? Political? Social? Philosophical?
3. What does the person being quoted believe is the importance of questions?
4. Which quotes resonate with you and why?
5. Which quotes trouble you and why?

REPRODUCIBLE 7: Analytical Questions to Guide Thinking

Name: _____ Date: _____

Task: _____

As you work through the inquiry, use these eight questions to focus your thinking and to assess the quality of your thinking.



REPRODUCIBLE 8: Questioning Skills Rubric

Name: _____ Date: _____

Task: _____

Success Criteria Category	Exceptional	Good	Getting there	Not yet	Further support required
QUESTIONING Inquiry Question The student asks relevant questions that further the investigation.	Student applies understanding of the qualities of an effective inquiry question by consistently asking (and refining) inquiry questions.	Student applies understanding of the qualities of an effective inquiry question by frequently asking (and refining) inquiry questions.	Student applies understanding of the qualities of an effective inquiry question by asking (and refining) some inquiry questions.	Student is beginning to identify the qualities of an effective inquiry question but cannot yet apply their understanding to refining or asking their own inquiry questions.	Student needs further support in asking inquiry questions.
Questioning Thinking The student answers analysis questions accurately (i.e., identifying concepts, purpose, point of view, inferences, and assumptions) and refines their thinking based on their analysis.	Student consistently answers analysis questions accurately, refines their thinking, and sets reasonable learning goals based on their analysis.	Student frequently answers analysis questions accurately, refines their thinking, and sets reasonable learning goals based on their analysis.	Student sometimes answers analysis questions accurately, refines their thinking, and sets reasonable learning goals based on their analysis.	Student is beginning to accurately answer analysis questions, refine their thinking, and set learning goals based on their analysis.	Student needs further support in answering analysis questions accurately and setting reasonable learning goals.

Descriptive feedback and next steps:

My goals related to this feedback:



**JENNIFER
WATT**

Jennifer Watt is an Instructional Leader for Beginning Teachers at the Toronto District School Board. She has been a history, politics, social science, and English teacher, and a consultant and a coordinator for 25 years. Throughout her career, she has supported both new and experienced classroom teachers at all grade levels and subject areas in thinking about how to share their knowledge, experience, and practices to improve student learning and establish professional communities.

Jennifer's work with teachers, teacher candidates, and administrators in Canada and internationally has focused on teacher and student identity, the adolescent learner, assessment practices, and how to build more inclusive classroom communities.

She is the author of several books for teachers and students, as well as exemplars and curriculum units. Jennifer has a Masters Degree focusing on the assessment of teacher practice.



**JILL
COLYER**

Jill Colyer is currently the National Coordinator of The Historical Thinking Project, a pan-Canadian history education reform initiative that is working toward the incorporation of historical thinking concepts into curricula, classroom resources, and teacher supports. She works closely with ministries of education in each province and territory, advises educational publishers on resource development, and facilitates professional development workshops for teachers and administrators across the country.

Jill has been a teacher and a writer of curriculum materials since 1991. She has taught secondary school students in Canada and Malaysia, and has worked as an instructor in the Continuing Education Department at the Ontario Institute for Studies in Education at the University of Toronto. Her work in curriculum development includes the writing of courses, textbooks, teaching guides, and assessment tools. Jill has also been a writer and editor for the CBC since 1996.

