Developing Successful Inquirers

### Heather Stoness, Melissa Tom, & Lori Tsotsos

### **3 Prompts to Frame Your Thinking**

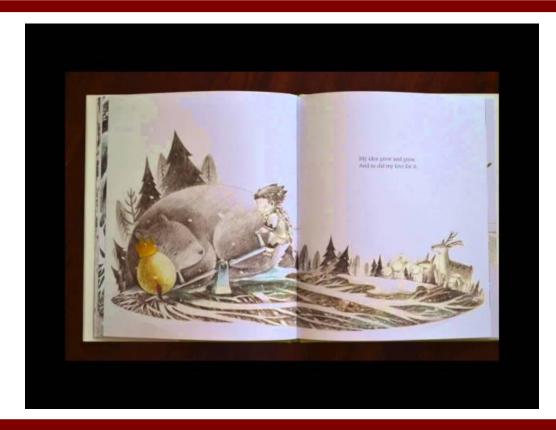


One action I will take...

One question I will ask...

Evidence of implementation I will see in my library...

### What do you do with an Idea?



## What is Inquiry?

"Inquiry is an approach to learning whereby students find and use a variety of sources of information and ideas to increase their understanding of a problem, topic or issue of importance. It requires more than simply answering questions or getting a right answer. It espouses investigation, exploration, search, quest, research, pursuit and study. It is enhanced by involvement with a community of learners, each learning from the other in social interaction."



Getting Started with Student Inquiry. (2011, October 1). Capacity Building Series.

### **Getting Started with Student Inquiry**

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What happens at each stage?



## **Inquiry Sort**

- Think of what the stage name means
  - What synonyms might students come up with?
  - Which of the given verbs fit with each stage?

When you see in the upper right corner of a slide, click it to take you to the page of the HDSB Inquiry Process website that features the activity we explored on that slide.

Inquiry Process

## **Inquiry Sort - continued**



 Classify and sort the statements according to the stage it occurs in
 Why are some statements repeated?

## **Inquiry Web Site Exploration**



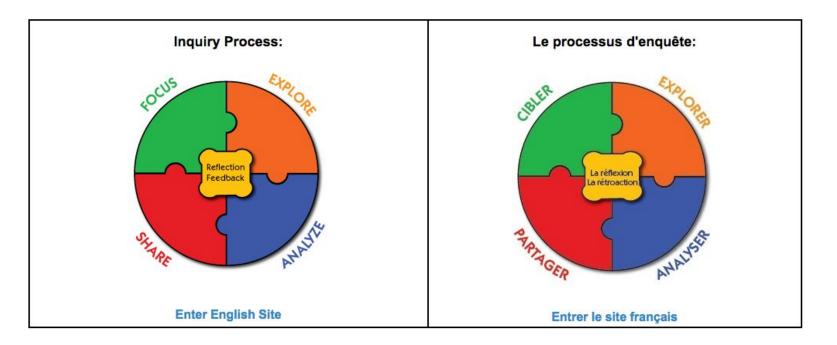
Inquiry Process:

- videos
- templates
- teacher tools
- reflection questions



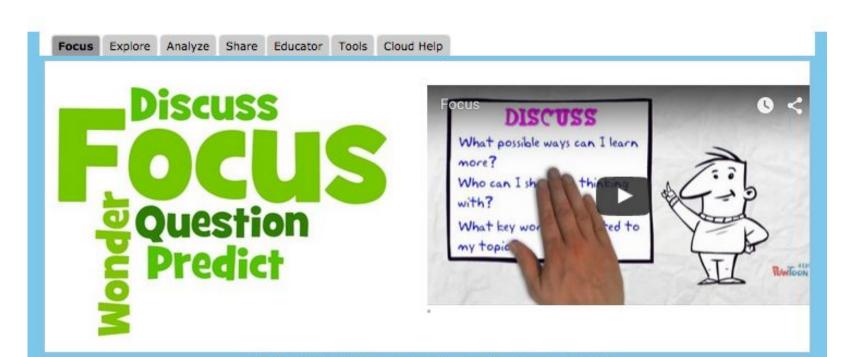
**Enter English Site** 

## **Inquiry Web Site**



**English and French** 

## **Stage Layout**



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### Question

Reflections:

### Reflection Questions

### What questions do I have about my topic?

- · What question do I want to explore?
- Have I developed a good inquiry question?
- Have I used questioning strategies to help me develop my question?
  - · thick vs. thin questions
  - Bloom's taxonomy
  - · question creation chart (Q-chart)

### Actions...

- · Question Creation Chart to develop questions
- Bloom's Question Starters to re-frame questions

### Thick Vs. Thin Questions for Research

Thick vs. Thin Questions for Research

Videos

Links to

Google Doc

templates





### And Addition of

high-level the questions.

0 <



Question Creation Chart (Q-Chart)

Directions: Create questions by using one word from the left hand column and one word from the top row. The farther down and to the right you go, the more complex and

### **Bloom's Question Starters**

Adapted from the work of Lise Carter

REMEMBERING	UNDERSTANDING What was the main lides? Describe what is meant by? Explain what the author means by? Describe what happend? What is meant by? How would you characterize? Summarize		
What is? Where is? When dis? Name two things? How is? List three things that?			
APPLYING	ANALYZING		
What examples can you find to support? What would result it? What would result it? What questions would you ask it? What questions would you ask it? Using what you know, construct How issimilar to _? How would you classify?	How would you compare? Distinguish betweenand How would you contrast? What is the raistonship between and? What is vidence can you find? What deas justly?		
EVALUATING	CREATING		
Do you agree with? Why or why not? What is your opinion of and why do you feel hat way Would you recommend _? Why or why not? What choice would you have made? Why was I better that? Why was I better that?	How would you rewrite the selection from's point of view? What do you predict will happen? How could you improve? What phanges would you make to? Role play the event. Invent a new scenario. What inference can you make about?		

### Screenshots of templates

### STUDENT

Source: Library Centers (https://www.youtube.com/watch? feature=player\_embedded&v=GpDRi5TgSh8)

### Focus

In this stage, students identify the purpose of their inquiry and develop essential questions and keywords about their inquiry.

### As an educator you should ...

- model wondering and making predictions
- discuss the difference between question types and how to create a good inquiry question
- introduce learning tasks that build on prior knowledge and engage students in thinking further about the topic
- identify a focus connecting the topic to a "big idea" in the curriculum while looking for cross-curricular connections
- dialogue with students and provide time for student talk



**Question Creation Chart** Key Word Organizer K-W-H-L Chart **Bloom's Question Starters** See, Think, Wonder Chart **Brainstorming Predictions Brainstorming Possible Outcomes** 

### Apps

Drop Mind Lite (Free) iPad Idea Sketch (Free) IPad MindMeister GoogleAdd-On Simple Mind (Free) Android

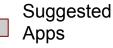
Lessons and Activities **Bloom's Sort Bloom's Sort Answers** Thick and Thin Characteristics Sort Thick and Thin Tester Sort





Courtesy of Amanda Dennis, Halton Teacher

Google Doc templates students have available to them



Google Doc Blackline masters

Possible Anchor Charts



Instructional Strategy Videos

Educator's Role







### Using a Q-Wheel

# Co-Plan Co-Teach

Inquiry Process



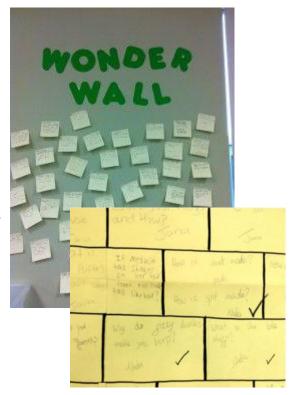
## **Co-Plan/Co-Teach - Collaboration**

Teacher-Librarian Role	Halton Inquiry Model Process	Classroom Teacher Role	
Focus (e.g., thin vs. thick questions, brainstorming, create inquiry questio	FOCUS	Focus (e.g., front loading, explicit teaching, brainstorming, identify focus topic)	
	-wonder -question -predict -discuss		
Explore (e.g., dot jot skills, evaluate sources, fo on reading/research strategies - skimming & scanning, citations)	EXPLORE	Explore (e.g., examine primary vs. secondary source generate key vocabulary, provide time to explore inquiry, conference with student:	
	-investigate -gather -record -connect		

# FOCUS

### **Wonder Walls**

A 'Wonder Wall' is a place where groups of questions can be modeled, recorded, shared, and encouraged. As students discover answers to their questions they can be marked with a check and more can be added. Another option is to have students write their questions on sticky notes that can be placed on the wall and then removed off the wall when answered.



### I wonder...

Using a photo or picture to teach questioning...

- I wonder where the truck is going
- I wonder what the truck is carrying
- I wonder why the truck is painted that way
- Tell a partner, I wonder...



## Questioning



"Yes ... I believe there's a question there in the back."

## What could his question be?

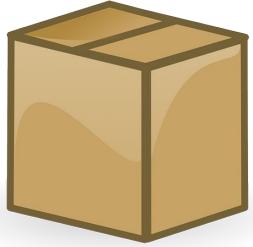
### Questioning



- What makes a good research question?
- Thick vs. Thin Questions Sort

### Focus - Q- Tasks Box Activity

## Learning about "Open/Thick" and "Closed/Thin" questions.



Q-Task Activity

### **Focus - Questioning**

### **Dissecting Thick Questions**

Brainstorm all the thin questions you would need to answer before being able to answer the thick question.

How have the Government's actions affected the First Nations culture and identity?

### **Focus - Questioning**



## Help students generate inquiry questions



## Focus - Using a Q-wheel

- use the Q-wheel and brainstorm as many questions as you can
- categorize the questions as "open/thick" or "closed/thin"
- which questions would further your inquiry and which questions are less useful

### **Focus - Other uses for the Q-wheel**

**Build Imagination and Prediction Skills with Picture Books** - Provide each small group of students with a picture book. Ask them to read the title, author, and illustrator and study the visual cover. Ask students to think about the possible story within the covers and spin the Q Wheel to build questions they are curious about, based on their examination of the cover. The activity could be used just as a pre-reading catalyst with several picture books or students could continue questioning during the story and even after reading to review the storyline or to create ideas for a storybook sequel.

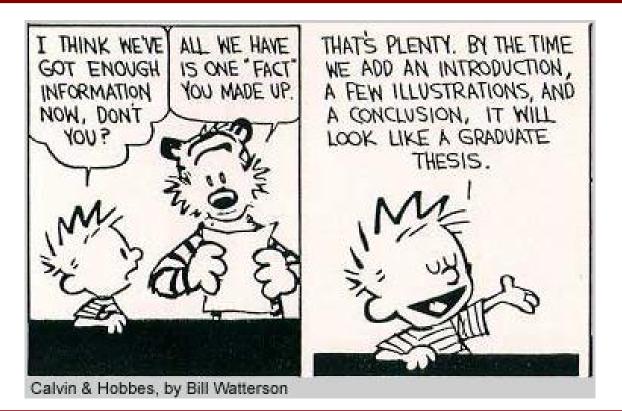
**Prepare for Literature and Inquiry Circles -** Provide the 'questioner' with a Q-Wheel to spin to help with developing questions for a novel study or inquiry topic. The student will need to record the best questions in preparation for the discussion circle.

**Study Buddies -** Working with a partner, or in a small group have students review content and quiz each other by building questions with the Q-Wheel.

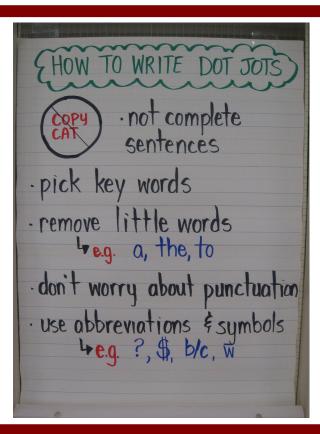
**Deconstruct and Analyze Visual Media -** The Q-Wheel is a handy prompt when working with any kind of visual media – photographs, graphs, charts, infographics, advertisements, political cartoons and video etc.. Formally give students lots of experience building questions to help them deconstruct and analyze media. Again working in groups adds to the success. Teach students to consider the type of media, the intended audience, how it was created, special techniques used etc.

https://sites.google.com/site/infosmarts4learning/q-smarts/questioning-to-learn

# EXPLORE



- Put together the sentences
- What words are necessary for understanding?
- Make dot jots for the sentences
- What do you notice about the words that you did not use in your dot jots?
- Are there other ways to make your dot jots shorter?
- Use Money Mat to demonstrate the value of word choice



 develop an anchor chart from your class discussion

### Strikethrough/Highlight - Moose Example

In order to stay cool in the Summer, moose swim in lakes and rivers. Moose antlers are b/w 120 - 150 cm in length. The fur on a Moose can be black, reddish or greyish brown. Moose have developed senses of smell and hearing.

- stay cool in Summer, swim lakes, rivers
- antlers b/w 120 150 cm
- fur black, reddish, greyish brown
- developed smell, hearing

# ANALYZE

### Picture this:

The text is like a pot of noodles being cooked. You know that the noodles are the most important part, but you couldn't cook them without the water. Your brain is like a pasta strainer. It helps you to <u>separate what's really important from what's simply interesting</u>:

## Analyze -Determining Importance

Before:



noodles in water

the text

### a strainer



your brain

When you separate what's really important (the noodles) from what's simply interesting (the water) in a text, you have DETERMINED IMPORTANCE!

just water

just noodles

Comprehension Connections – Bridges to Strategic Reading – Tanny McGregor





interesting



important, key details that lead to main ideas

### **Analyze - Determining Importance**



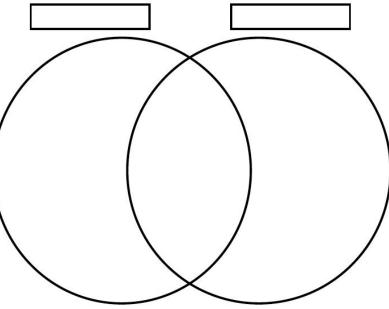


You are going for a run and will not be able to take your purse, and therefore you will need to determine which items are important enough to take.

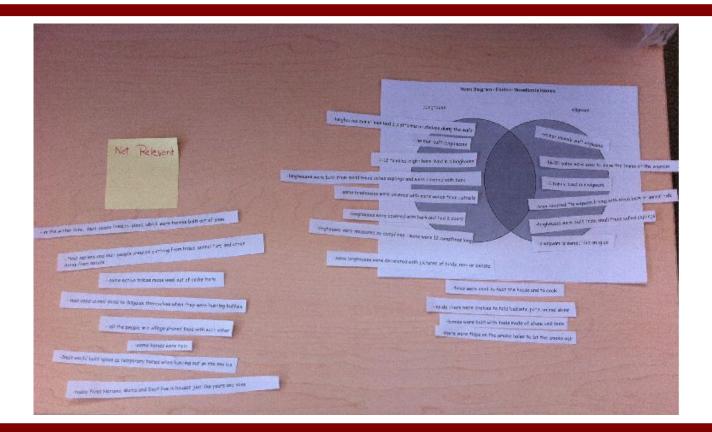
## Analyze - Venn Diagram



use Venn Diagram to compare your information



### **Analyze - Venn Diagram**



## **Analyze - Venn Diagram**



I. Both dogs and cats make great pets.

- · Both animals can be very entertaining
- · Each is loving in its own way
- · Each can live inside or outside the house
- II. Both have drawbacks, as well
- They shed
- They can damage property
- · Both can be costly
- Both require time and attention

III. Cats can be easier to care for

- Cat box
- · Leaving for a day

## **Analyze - Louis Riel**



• Sort the information to help determine your

position

Is there information that is no longer relevant

to your position?

## Analyze - So What?

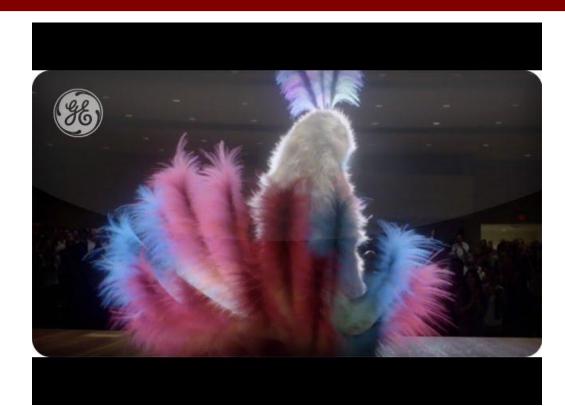
- How does my information relate to my question?
- What conclusions and inferences can I make?
- What information am I missing?

# FINAL THOUGHTS

### Resources

### Have a look at some of the resources we use

### Last thoughts...



### **3 Prompts to Frame Your Thinking**



One action I will take...

One question I will ask...

Evidence of implementation I will see in my library...