

Building A Culture of Inquiry In The Library.

Saskatchewan School Library Association Conference

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Questions for Student Success



- Why is **questioning** Important?
- How do we build **curiosity** and **wonder**?
- How do we teach students the **purpose** of questioning?
- How do we teach students to question **effectively**?
- How does questioning build **understanding**?
- How can questioning be a **priority** in our schools?

Curriculum Perspective:

Questioning is Cross Curricular

☐ reading

☐ writing

☐ thinking

☐ communicating

☐ research

☐ evaluating and goal setting



Questioning is key to understanding

Futurist Perspective:

The best employers the world over will be looking for the most **competent**, most **creative** and most **innovative** people on the face of the earth and will be willing to pay them top dollar for their services. This will be true not just for the top professionals and managers, but up and down the length and breadth of the workforce.

Tough Choices or Tough Times

National Centre On Skills for the American Workforce
NCEE Washington DC

Youth perspective

Why must I find answers to already answered questions when I have questions that have not yet been answered?



21st Century Skills

The best thing we can be teaching our children today, is how to teach themselves.

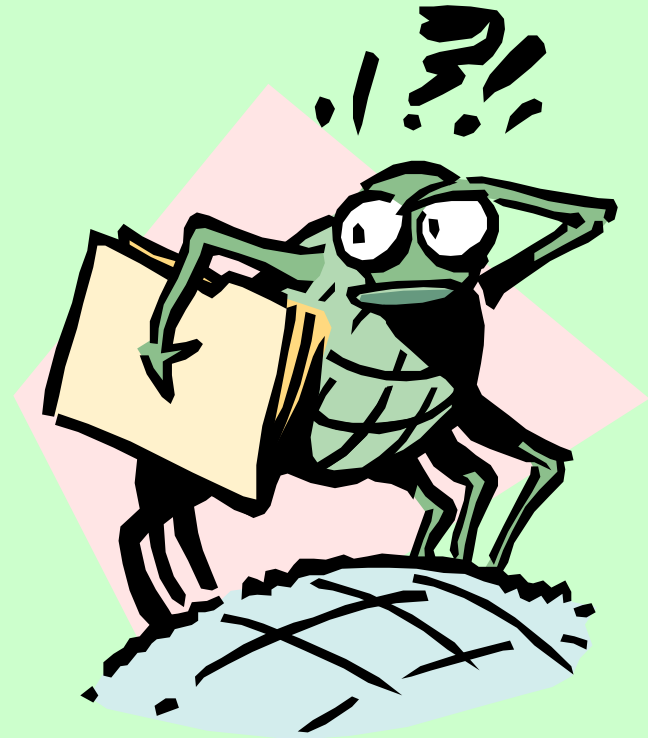
David Warlick
<http://davidwarlick.com/2cents/>

Learning skills

- thinking critically and creatively
- applying knowledge to new situations
- analyzing information
- comprehending new ideas
- communicating
- collaborating
- solving problems
- making decisions

How curious are you?

- Is there someone you know who is a model of curiosity?
- What is it about that person that defines their inquisitiveness?



Become a walking question mark!

“Clearly you must also learn what you need to know.....asking questions is probably the most valuable part of collecting information.”

Frank Feather 1996



Building a Culture of Inquiry

- Establish a Community of Learners
- Work on awareness
- Teach observation skills
- Invite, value and celebrate questions
- Model effective questioning



Establishing a Community of Learners

Guided Inquiry: Learning in the 21st Century by C.Kahlthau,
L. Maniotes & A. Caspari

- Model personal connections
- Create a safe atmosphere
- Encourage students to speak freely
- Accept varied viewpoints
- Listen to ideas
- Consider students' ideas carefully



Building Observation Skills

- Simple mechanisms
 - Examine the artifact
 - Make a sketch
 - Record what you know
 - Develop questions to explore
 - Discuss how to find answers to new questions



Create a desire to know

Puzzle them First: Motivating Adolescent Readers

with Question-Finding By A. V. Ciardiello

Motivate and challenge with the unknown or the perplexing

- artifacts both real and virtual
- historical photos, cartoons, posters
- quotations
- film clips
- discrepant events

Teach strategic questioning with games and drama.

- 20 Questions
- Jeopardy
- Trivia
- Are you Smarter than a Fifth Grader?



Model Effective Questioning and other tips.

- Consider your own questioning techniques.
- Utilize questioning in 'think alouds'.
- Display good questions and quotes about questioning.
- Design activities that prompt critical and creative thinking.
- Build a shared language for questioning
- Celebrate questions
- Value and assess questioning

The 5 Ws and How

Who

What

When

Where

Why

How

?????

Children's Authors

- Each person in your group is responsible for reading about a children's author.
- As you read complete a **Quick Fact Trading Card**.
- Share your card with your group.
- Compare data collected on cards.
- **So what?**
 - Common similarities
 - Major differences
- **Now what?**
 - create an author bulletin board, webpage, book, celebration....

Quick Fact Cards

Quick Fact Trading Cards

Who?
What?
When?
Where?
Why?
How?

Info Bytes



Who?
What?
When?
Where?
Why?
How?
Which?

Question Question

- Before reading
- During reading
- After reading



400 YEARS

GREEN

BAD



biodegradable

good

decompose

plastic

e-waste

Is recycling the answer?

- Each person in your group is responsible for an article on recycling.
- Skim the article first and jot down a few questions you hope to answer.
- Read the article and record more questions you have about the article as you read.
- Post reading if you have more questions jot them on the organizer.
- Share and code your questions.
- Discuss the questions of each group member. Look for similarities and differences.
- **So what?**
 - Write an opinion paper responding to the big question, Is recycling the answer?
- **Now what?**
 - Take action –campaign, letters, posters etc.

Question Builder Chart

Koechlin and Zwaan Q Tasks Pembroke 2006

	is	did	can	would	will	might
Who						
What						
When						
Where						
How						
Why						
Which						

Questioning with Six Thinking Hats

- **White Hat** - facts and details
- **Yellow Hat** – optimistic, positive and logical
- **Red Hat** – intuitive, emotions and feelings
- **Green Hat** – new ideas and imagination
- **Black Hat** – caution and judgment
- **Blue Hat** – metacognition, reflection, big ideas

- Edward de Bono 1985



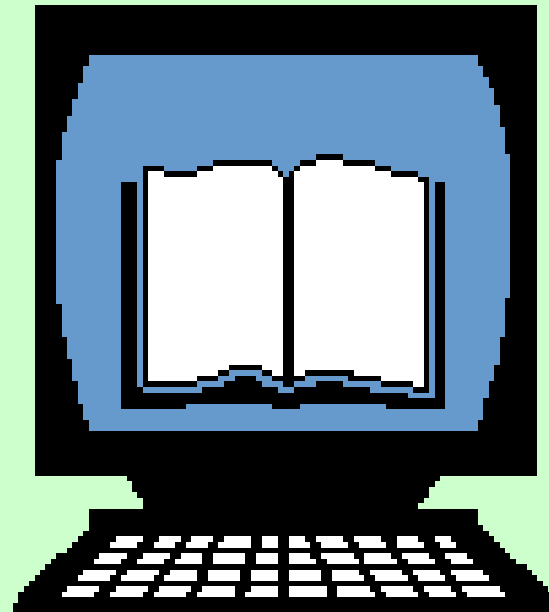
How do we teach students to question effectively?

- 5Ws and How
- Question Builder
- Six Hats
- Re Quest
- Bloom's Taxonomy
- Media Analysis

ReQuest Procedure (Manzo, 1969)

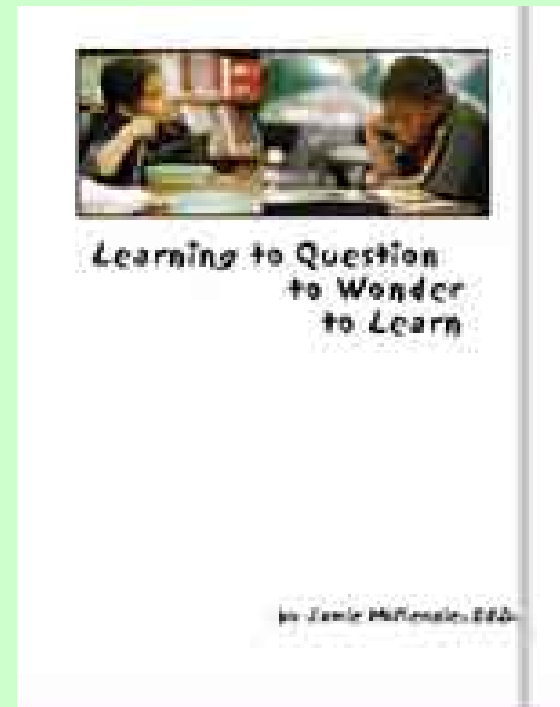
**Students develop
three levels of
questions.**

- On the line
- Between the line
- Beyond the line



Thoughts and Questions by Jamie McKenzie

- Isn't thinking enough?
- Unfortunately much thinking is done in an unquestioning manner.
- Isn't thinking and questioning part and parcel of the same whole?
- Questioning infuses the thinking with purpose.



Bloom's Taxonomy

- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation





Bloom Examples

Knowledge Where do frogs live? What triggers the survival instincts of a frog?

Comprehension Would a frog sense danger in warm water? What is the message of this story?

Application How would a frog react if it landed on a very hot rock? A patch of ice? How could this fable be told in drama?

Analysis Why do you think the frog does not sense the danger in slowly warming water? How is a frog like a smoke alarm?

Synthesis How does this message relate to us and our environment? How could we train frogs to react differently to increased temperatures?

Evaluation Are the frog's survival instincts adequate for life in the Toronto area? Why might this be an important story?

Media Analysis

- Text
- Audience
- Production



Deconstructing Media Meanings



What is it all about?

- Think about media type, genre, meaning, ideologies, values, narrative, and commodity

Who is the target?

- Think about culture, gender, race, age, skills, use, pleasure, choices, needs



How was it created?

- Think about technology, economics, ownership/control, production, institutions, distributions, ethics, and legality

How can questioning help students build understanding?

- Good readers ask questions
- Good writers ask questions
- Research is the question
- Reflection and goal setting



Readers generate questions:

- Before, during and after reading
- For different purposes
 - Clarify ideas
 - Make connections
 - Make inferences
 - Make predictions
 - Provoke thought
 - Extend their thinking



Information Circles

- Data digger
- Questioner
- Reflector
- Illustrator
- Wordsmith



Saskatchewan Teacher –Librarians: Reading Literacy
http://www.saskschools.ca/curr_content/teachlib/read_lit/rinfo_circles.htm



Reading on the Internet

No other tool will help the Internet reader as much as the right question, asked at the right time and in the right way. Intelligent readers of the Internet begin by asking questions even before they log on, and they continue to ask questions during their search. By asking questions repeatedly and deliberately, students become thoughtful readers, developing "habits of mind" that they can then generalize to other situations or tasks

- (Costa & Kallick, 2000).
- http://www.i-learnt.com/Thinking_Habits_Mind.html

Reading Digital Text

- **Establish purpose first!**
- Why are you reading?
 - for fun and relaxation
 - to find specific facts (dates, weather, statistics)
 - to conduct research about a topic
 - to prepare for a class discussion
 - other
- Brainstorm and record questions students hope to answers.
- Let students use sticky notes for new questions.
- Teach active reading skills.
- Teach web evaluation skills.
- Compare print and digital sources.
- Prepare E-Tours on topics.
- Keep track of URLs

Evaluating Resources

✓ **Accuracy**

✓ **Authority**

✓ **Bias**

✓ **Currency**

✓ **Purpose**

✓ **Context**

✓ **Origin**

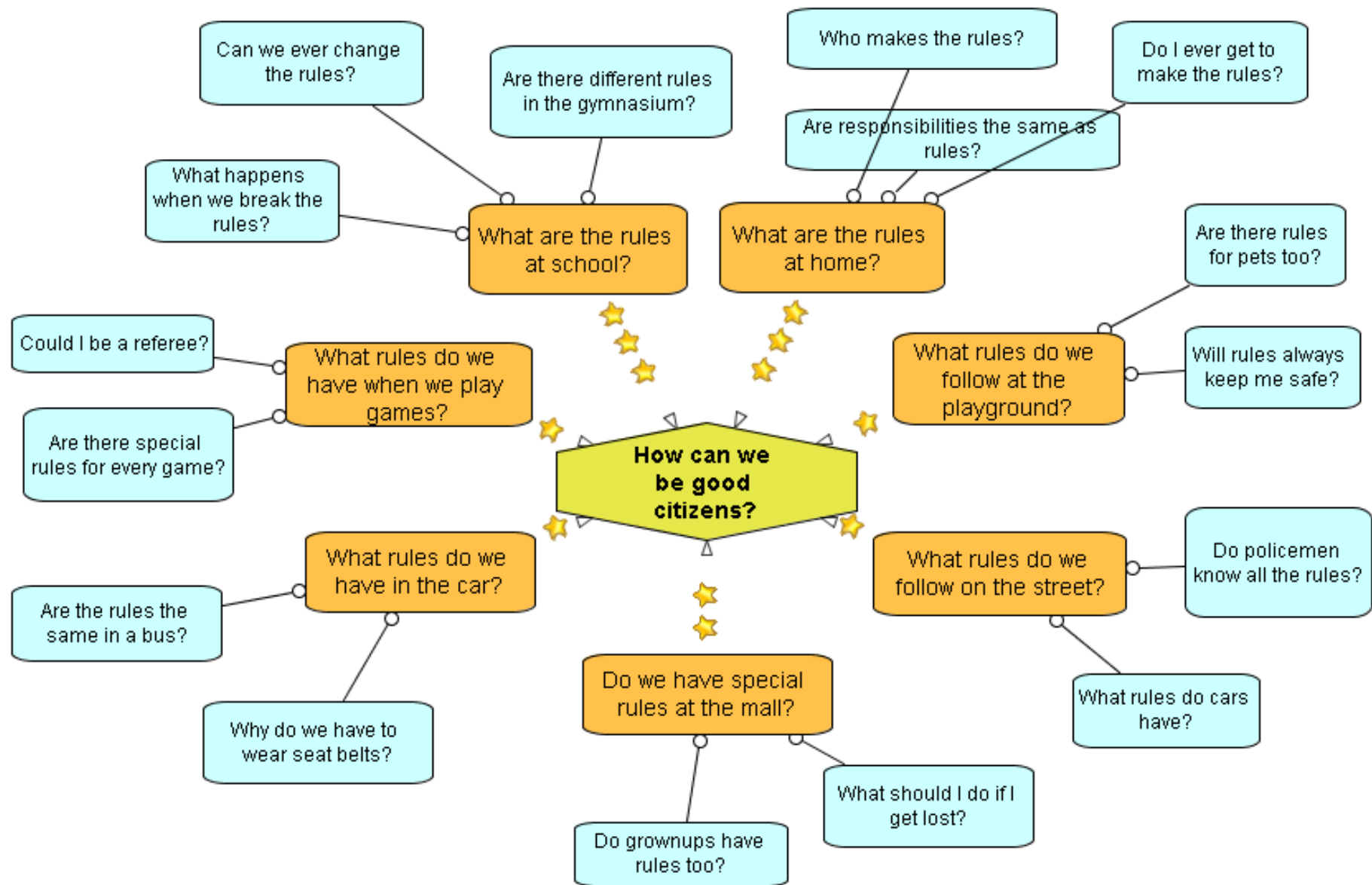
✓ **Content**

	Source 1	Source 2
Who		
What		
When		
Where		
Why		
How		
Which		

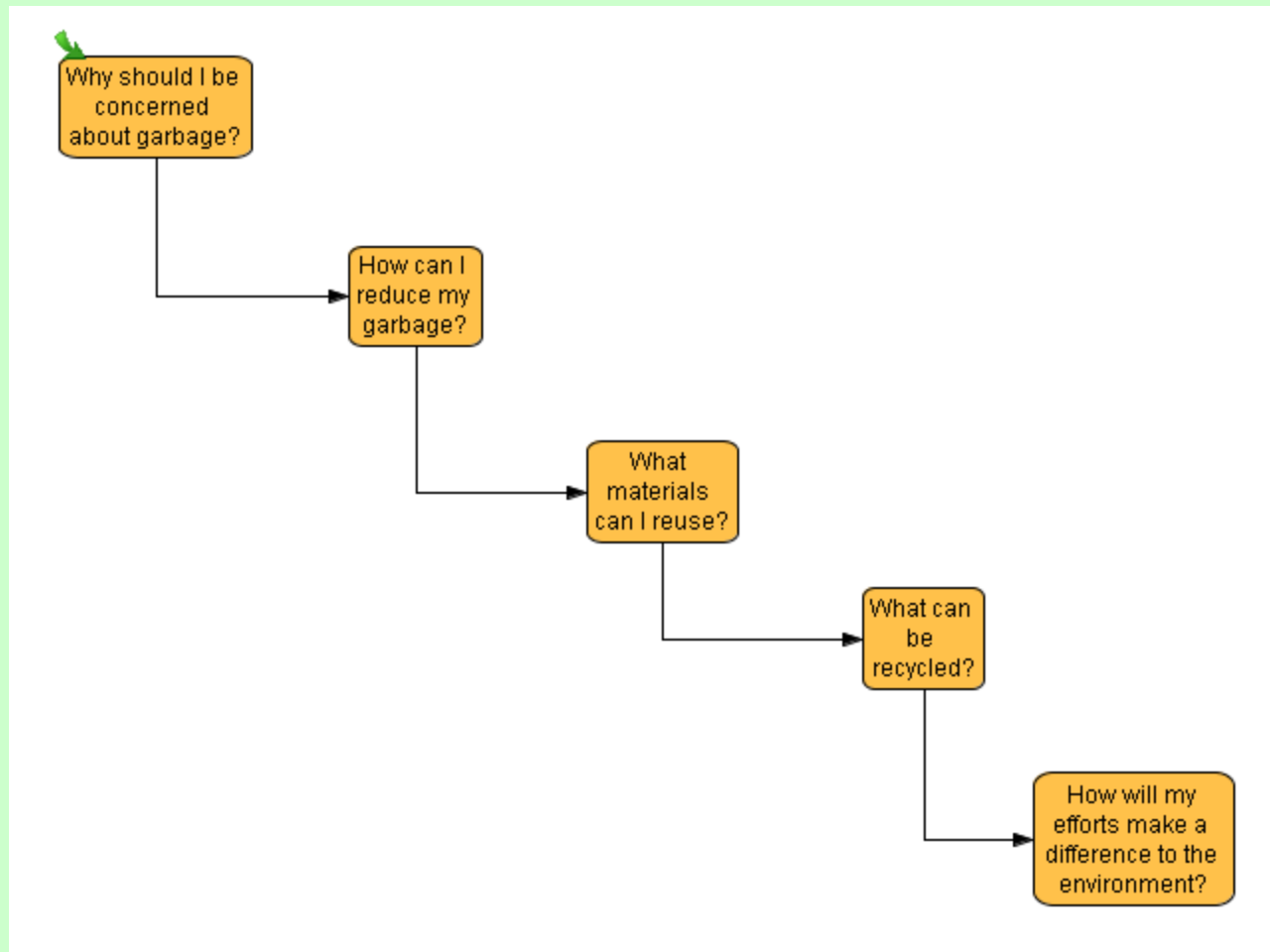
Writers ask questions to:

- focus their ideas.
- clarify their thinking.
- organize their ideas.
- test their ideas with others.
- analyze their thinking.
- create personal meaning.
- monitor their own work.
- evaluate their work.





Planning a report on stewardship of the environment.



Making Comparisons	Frogs	Toads
What colour are they?		
What do they eat?		
How do they move?		
Where do they live?		
Who are their enemies?	Koechlin and Zwaan Questioning Sask. 2008	39

Beyond “all about” a topic...

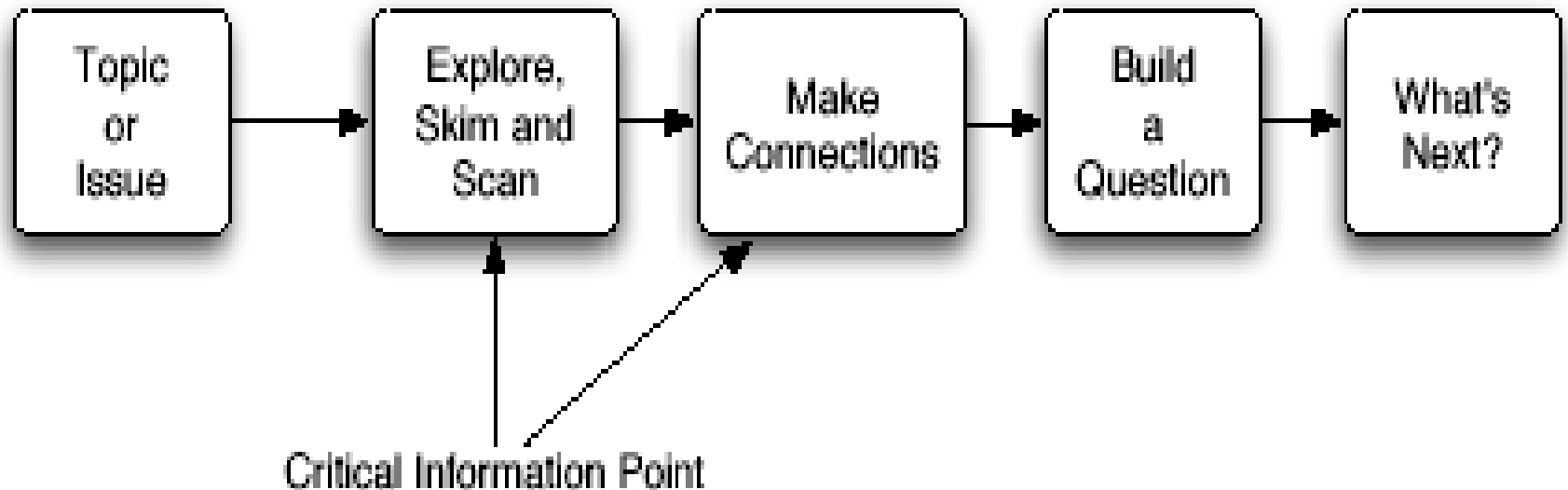
- Questioning elevates the quality of research projects and student understanding.
- Research without questions invites “cut and paste”.
- Questioning invites original thought.



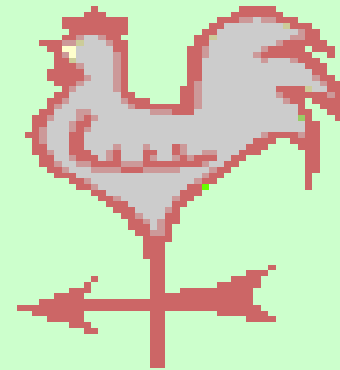
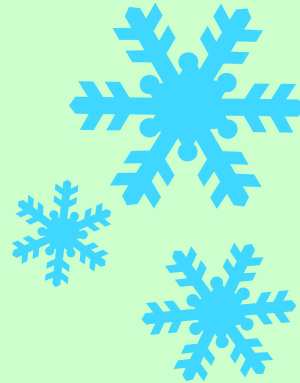
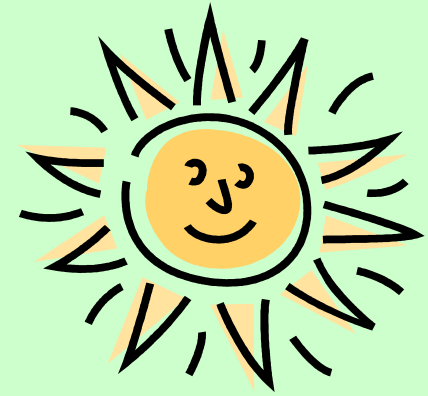
Successful Research/Inquiry Questions

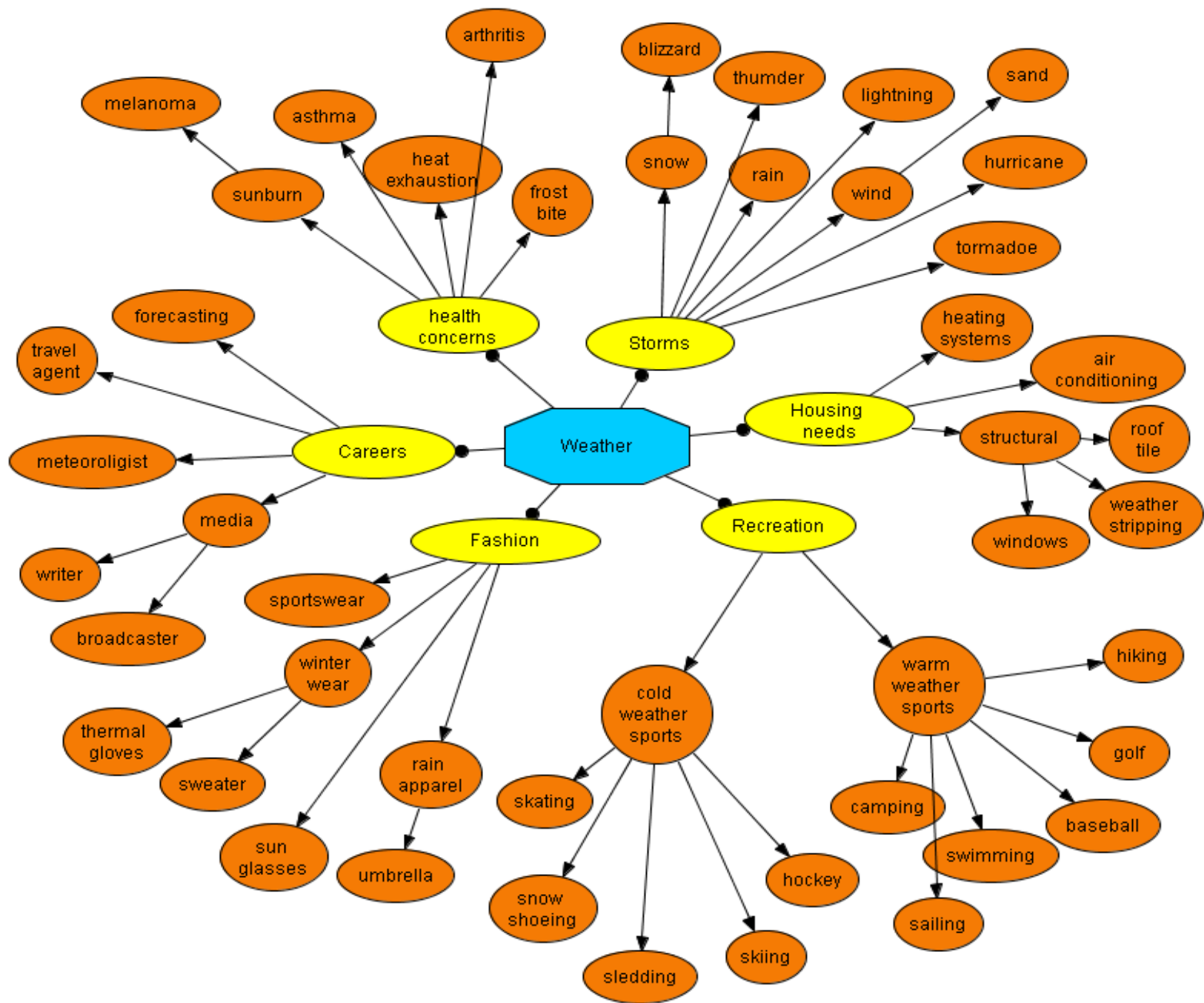
- Create a desire to know
- Build background knowledge
- Make connections
- Provide time to experiment with questions
- Conference with students
- Create contracts
- Assess the effectiveness of the questions

Background to Question Model



Ban those Bird Units and Beyond Bird Units Loertscher Koechlin and Zwaan





Topic : hurricanes		
What do you know?	What do you need to know?	Where can you find out?
severe winds flooding damage and death Katrina tropical storms evacuation	What are the causes? How do they predict the path? How do you prepare/protect yourself? Are they getting worse?	school library public library books Internet weather channel weather agencies newspaper databases & archives
Keywords : hurricanes, tropical storms, meteorology, Katrina		

Use FOCUS words to elevate research questions.

- Which focus words will enrich my research question?
- Which focus words will help me target the data I need?
- Which focus words will help me analyze my data?



Weather Inquiry

If you are looking for just the facts build simple questions.

- **What** is a hurricane?
- **Where** do hurricanes occur most often?
- **What** is the **role** of emergency workers before, during, and after a hurricane?

Power Up your inquiry question

If you want to uncover understanding build powerful research questions.

- What **causes** hurricanes?
- What is the **impact** of hurricanes on people, animal life and the environment?
- What are the **consequences** of hurricanes for families and businesses?
- How have building/construction methods been **affected** by hurricanes?
- What are the **similarities** and **differences** between a hurricane and a tsunami?
- How should families prepare to best be able to **survive** during and after a hurricane?

Power Up your inquiry

Statements of purpose are also good research guides

- **Study** the **role** meteorology plays in hurricane areas.
- **Examine** population **patterns** in areas prone to hurricanes.
- **Compare** building codes in hurricane and non hurricane areas.
- **Investigate** if there is a **correlation** between global warming and tropical storms.

Consider these guiding questions as you build your inquiry question:

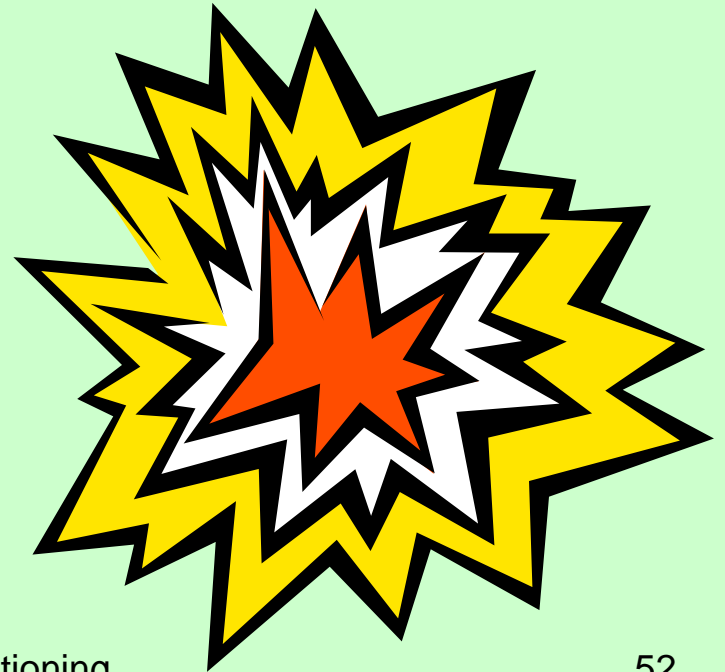
- What are you really curious about?
- Why do you want to explore this topic?
- What do you know already?
- What do you need/want to find out?
- How will you make sense of the data you discover?
- Who will your audience be?
- What do you want your audience to understand about your research?
- How will you share your new learning?

Research based on effective questions:

- ✓ stimulates curiosity
- ✓ demands rich information sources
- ✓ guides and focuses the process
- ✓ provokes deep thought
- ✓ prompts analysis and synthesis
- ✓ enables personal understanding
- ✓ encourages transfer

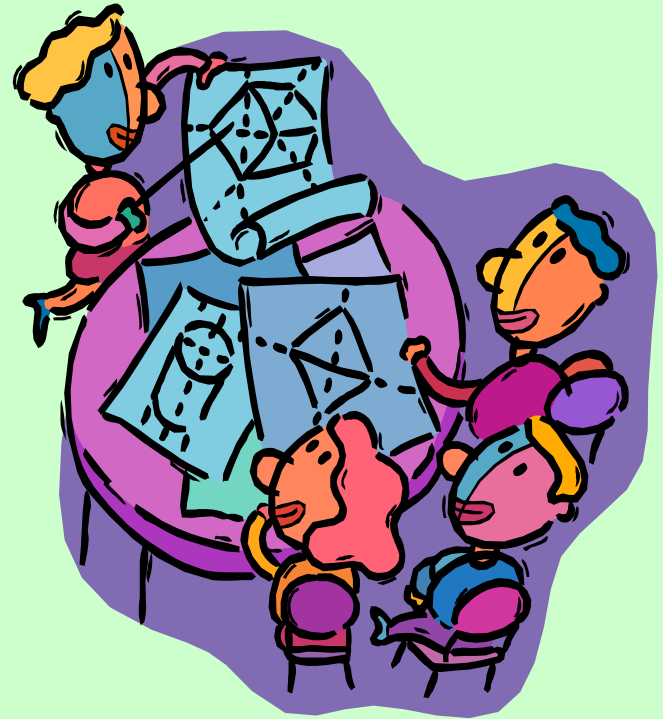
Plagiarism buster !

- The best way to ensure that students' work is original thinking is to enable them to develop their own focus with good inquiry questions.



Questioning to Grow

- Reflections
- Learning logs
- Preparing for tests
- Interviews and surveys
- Conferencing with peers
- Self assessment
- Goal setting



Inspire questions by creating E-Projects



- Pathfinders
- Guided Tours
- Scavenger Hunts
- Virtual Tours
- Interactive Video Conferencing
- On-Line Projects
- Blogs
- Wikis
- Web Quests



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page ▾

discussion (2)

history

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http://monsonclassroom.wikispaces.com/

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Mr. Monson's Grade 5 Classroom Wiki: Thousands Project

[Nettleton Magnet Elementary School, Duluth, Minnesota, U.S.A.](#)

Page Locked

Welcome to Mr. Monson's Grade 5 Classroom Wiki. Every month I will post a question for you to answer. Our goal is to reach at least one thousand answers for each month of the school year. We use this wiki to share our thoughts, get ideas for writing, learn geography from around the world, collaborate with others, and read the thoughts of others. Stay tuned to this page each month so you can add your input to our lists. Click on the links below to see what we are asking and would like you to respond to. Remember to be responsible, respectful, and safe as you reply to our page. Thanks for taking the time to make the world smaller to us!

Jay Monson, Grade 5 Teacher



Click on a monthly link below to add your thoughts and comments:

September 2007 Wiki Entry

[What are you good at doing or like to do?](#)

October 2007 Wiki Entry

[Where would you like to visit if money and time were not an object?](#)

November 2007 Wiki Entry (Not to 1,000 yet! We need new entries!)

[What are you thankful for?](#)

December 2007 Wiki Entry (Not to 1,000 yet! We need new entries!)

[What are acts of peace and kindness you could do as a gift?](#)

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lionden | The Droughtlanders: Book One in Triskelia Series

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"Twin brothers Seth and Eli Maddox are Keylanders brought up within the privileged and protected Eastern Key. Keylanders, the boys are told, must keep within their walls to avoid the filth and disease spread by the Droughtlanders - those who struggle to survive on the parched land between the Keys. But when Eli sees their mother helping one of the wretched Droughtlanders, a chain of terrible events begins to unravel the life they've all known and will pit brother against brother in a life-or-death struggle between two worlds."

"He knew he was mad at Edmund and Seth. That much hadn't changed. But his anger was bigger now, and seemed to be growing with every moonrise. He wondered if he'd be this angry forever, or if someday it would fade into a livable peace.

Or was this the manhood that would be his? This constant rage. This constant seeking. Unsatisfied. Confused. Alone."

What are your thoughts on how the author has unraveled Eli and Seth's lives and pitted "brother against brother in a life-or-death struggle between two worlds"? Do you have any anger management suggestions for Eli and Seth? Please respond or share any other thoughts you have on this novel.

Read Think Write

Capture the hype of social networking and at the same time ensure that when students are working in the Web 2 environment that they are engaged in high THINK activities as they read write. The potential of this collaborative space for knowledge building is just being explored by educators.

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Grist 22 hrs ago

Bulletin Board 1 day

The Blue Helmet 1 d

The Droughtlanders:

day ago

The End of the World

day ago

The Warrior's Daugh

The Space Between

The Song of Kahuns

Keturah and Lord De

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Student as Questioner

- 5Ws and How?
- ReQuest Procedure
- Six Thinking Hats
- Blooms Taxonomy
- Before, During, After Reading
- Analysis of Media/Visuals
- Reading Digital Text
- Planning for Writing
- Research Questions
- Reflection and Self Assessment
- Collaborative Knowledge Building



How to empower students to ask questions and care about answers



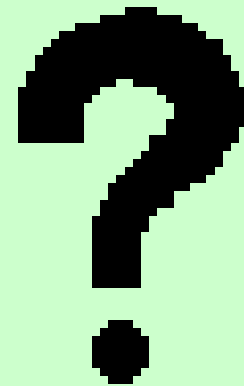
- To prepare students to fully participate and thrive in this new 'knowledge age', we must equip them with questioning know-how.
- Intuitive questioning techniques are becoming essential learning tools.

We have explored:


- Why is **questioning** Important?
- How do we build **curiosity** and **wonder**?
- How do we teach students the **purpose** of questioning?
- How do we teach students to question **effectively**?
- How does questioning build **understanding**?


NOW


- How can we make questioning a priority in our schools?



NEXT STEPS

 3 Three questioning strategies you plan to try.

 2 Two steps you will take to inform others in your school/district about the importance of questioning skills.

 1 One question/concern you still have about student questioning.

