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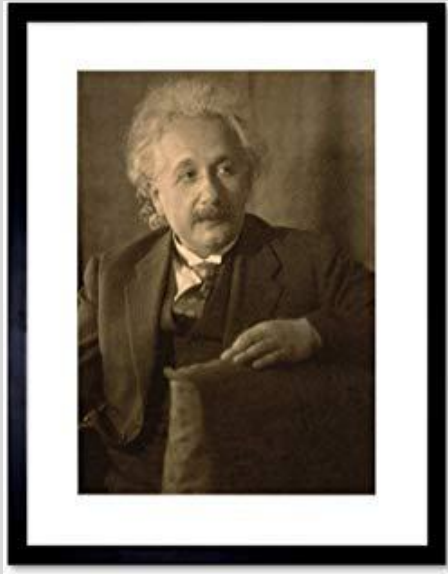
# Helping Students: Peek Curiosity, Wonder About the World, and Generate & Answer Questions

Kim Heckart, 3rd Grade Teacher  
College Community School District, Cedar Rapids, IA  
[kheckart@crprairie.org](mailto:kheckart@crprairie.org)



**“The important thing is not to stop questioning.  
Curiosity has its own reason for existing.”**

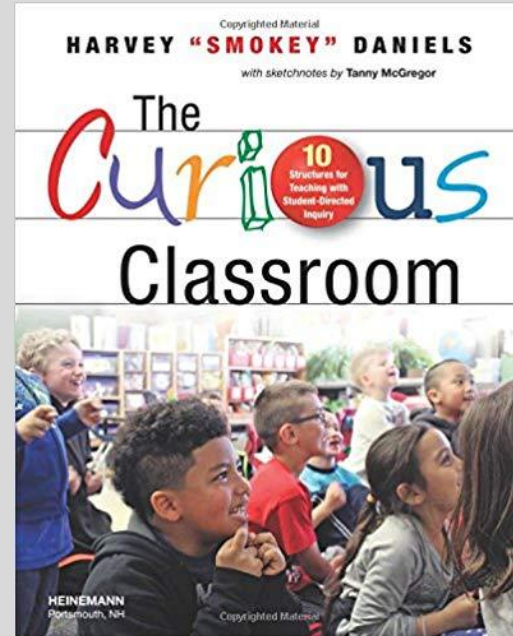
~Albert Einstein



# — The Curious Classroom

10 Ways to Incorporate Inquiry Into Your Classroom

*“Inquiry is an exciting and energizing way to engage kids’ hearts and minds-- AND to cover content and meets standards.”*  
~ Harvey Daniels





## Inquiry Approach vs. Coverage Approach

Classrooms and teachers “flipping their thinking” .... “where educators used to worry about covering the material, they now plan how to evoke curiosity. They used to focus on assigning and assessing finished products, they now teach THINKING: problem solving, researching, vetting, collaborating, analyzing, critiquing, and presenting.”

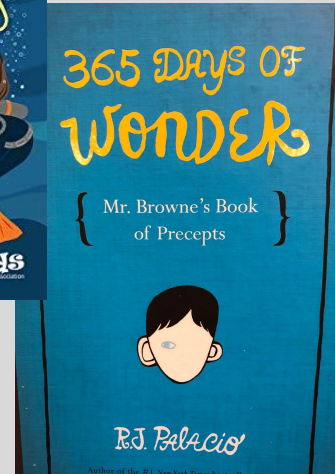
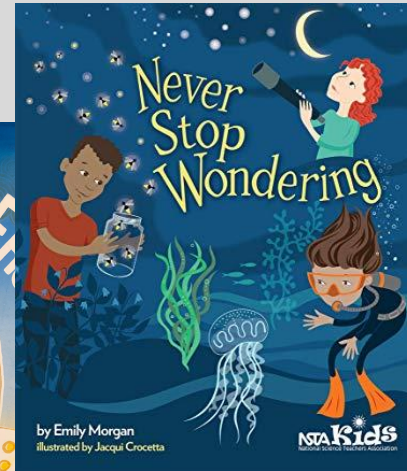
### KEY Shifts:

- 1) Honor kids’ own questions.
- 2) Make the required curriculum into questions kids can’t resist investigating.



# 1. Demonstrate Your Own Curiosity

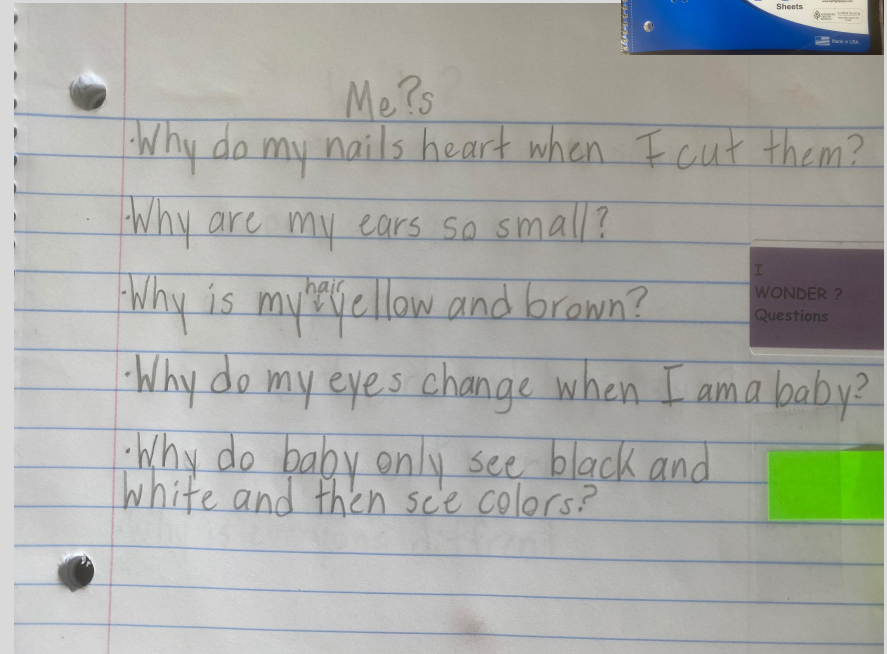
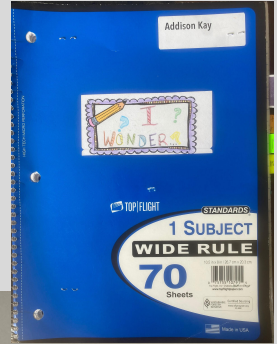
*Once we believe in ourselves, we can risk curiosity, wonder, spontaneous delight, or any experience that reveals the human spirit.*  
~E.E. Cummings



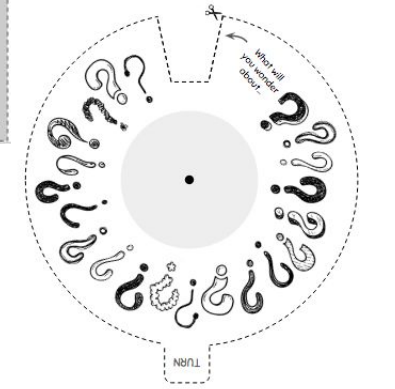
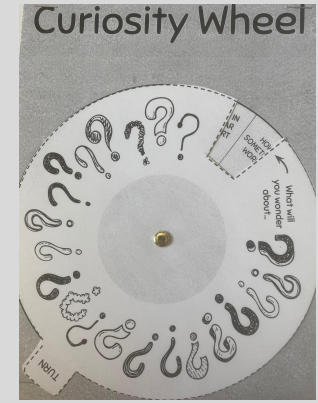
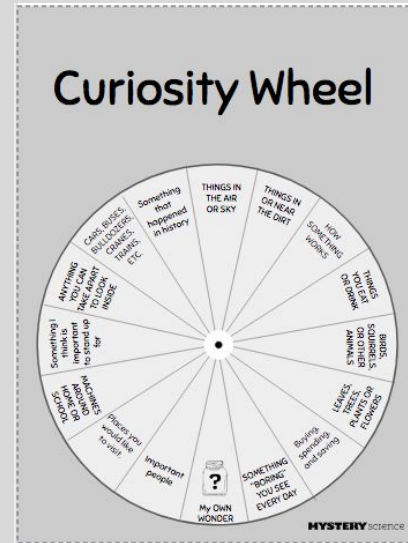


# Questions About Me....

*Once we believe in ourselves, we can risk curiosity, wonder, spontaneous delight, or any experience that reveals the human spirit.*  
~E.E. Cummings

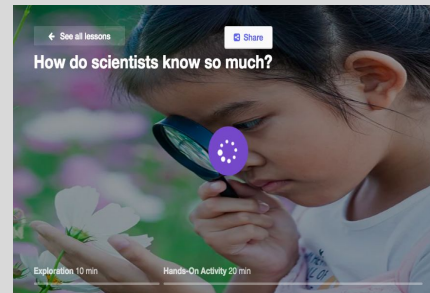


# Curiosity Lesson (Anchor Lesson)



- INSTRUCTIONS:**
1. Cut along the dotted lines on page 1 (rectangle) and page 2 (spinner).
  2. Use a pencil to poke a small hole in the center black circle on both pages.
  3. Place the out-cut spinner on top of the out-cut rectangle.
  4. Line up the pencil holes that you made in Step 2.
  5. Put a brad through these pencil holes.
  6. Spread the prongs of the brad to secure the spinner to the rectangle.
  7. (Optional) Glue the whole thing into your science notebook.

[Mystery Science](#): How do scientists know so much?  
[Curiosity Wheel](#) (link)  
 (Free during closure...Back to School Lesson)



# Introduce Perspectives (Social Studies & Science) to begin Wonder Notebooks



PERSPECTIVE	DEFINITION	QUESTIONS WE ASK
SPATIAL	where things happen on Earth in <b>space</b> and in different <b>places</b>	<i>Where is it? Why is it there?</i>
CULTURAL	the way <b>individuals</b> are shaped by their environment	<i>What social or cultural factors are present?</i>
POLITICAL	the <b>policies, laws, and viewpoints</b> that shape an environment	<i>What policies and laws are present? Who is in power?</i>
ECONOMIC	the allocation, distribution, and consumption of <b>resources</b>	<i>What is the distribution of resources like?</i>
HISTORICAL	where things happen on Earth in <b>time</b> and <b>chronology</b>	<i>When is it? Why does this matter then, today, and for the future?</i>
GEOLOGICAL	the <b>physical characteristics</b> of Earth's surface and substances	<i>What impact does the Earth's surface have?</i>
ECOLOGICAL	how life forms <b>interact</b> with the physical environment	<i>What connections and relationships among life forms are present?</i>

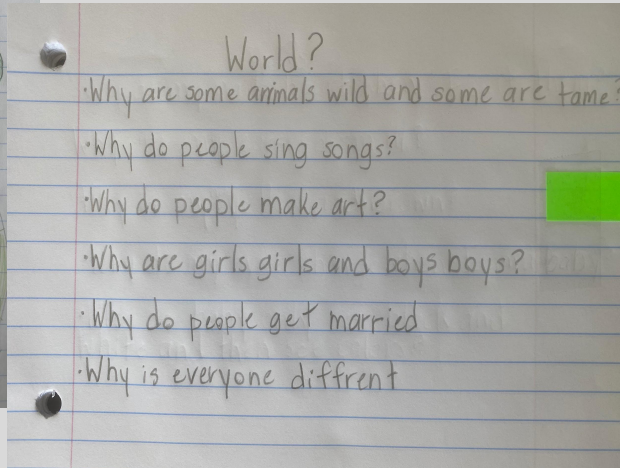
NATIONAL GEOGRAPHIC HUMAN & NATURAL WORLD








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[National Geographic Perspectives Link](#)




# Questions About the World.....



PERSPECTIVE	DEFINITION	QUESTIONS WE ASK
 SPATIAL	where things happen on Earth in <b>space</b> and in different <b>places</b>	<i>Where is it? Why is it there?</i>
 CULTURAL	the way <i>individuals</i> are shaped by their environment	<i>What social or cultural factors are present?</i>
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# What makes a good question?

[LINK](#)

## What makes a good question?

- Makes you think hard about something.
- Is on topic.
- Makes you think about what you already know, but want to dig deeper into a topic.
- Can be answered through reading, research, experts, or experiments.
- Interesting
- Could have follow-up questions.
- Should help you and others learn.
- Should start with: I wonder, who, what, when, where, why, or how, can, do, or does.



# Questions or comments????



Students, write your response!

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## 2. Investigate Ourselves and Our Classmates

- Get to Know Our Own Identities
- Explore Our Differences
- Share Our Languages
- Develop Morning and Closing Meeting Procedures





# Wonder Wall

## 3. Capture and Honor Kids' Questions

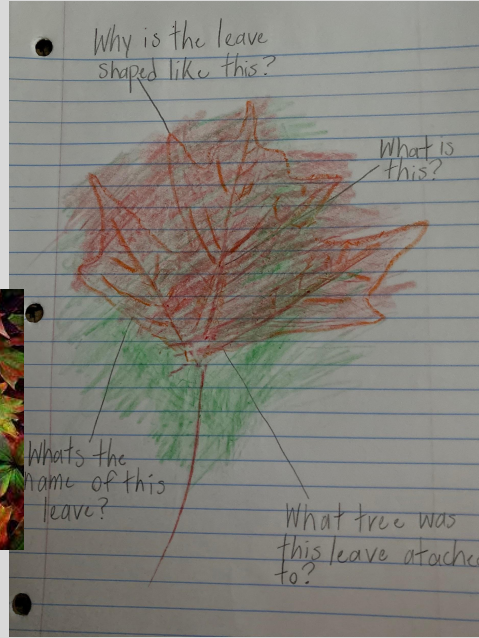


Link: [Virtual Museum Tours](#)

## 4. Soft Starts

- Play First
- Investigate to Evoke Curiosity

Link: [Smithsonian Museum Artifacts](#)



## 5. Check Our News Feed

- Follow a Web Cam
- Let Students Gather the News



### [Decorah Eagles Link](#)

The adult pair living in this nest remain in the area year-round, so it's very likely you'll see them!

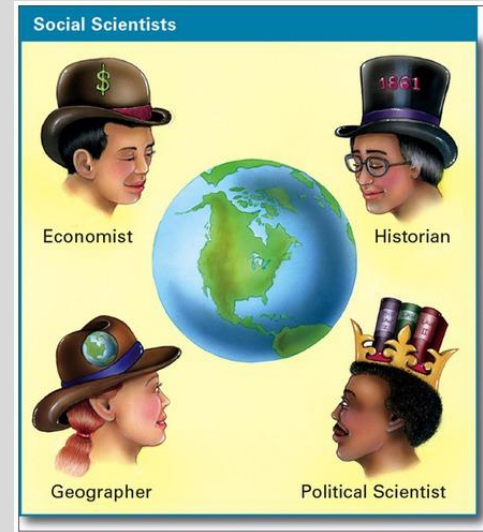
The pair usually begins a period of "courting" in October, but productive mating does not begin until late January or early February. The female will lay eggs in mid-to-late February, and the eggs will hatch at the end of March or the beginning of April. The eaglets will spend the spring months eating the food their parents bring them and exploring the nest; they will fledge in mid-to-late June and disperse between August and October.



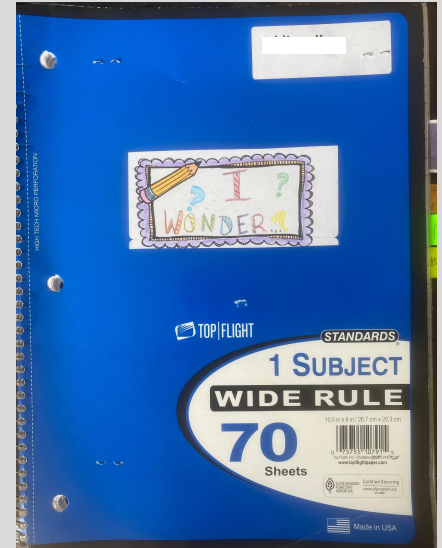
"By getting face time with experts, students learn authentic and reliable information, and also witness what passionate and sustained devotion to a speciality look like." ~Daniels

## 6. Hangout with an Expert

- [Become a National Geographic Educator](#) (Nat Geo Explorers)
- [Veterans Example](#)
- [Skype a scientist](#)
- Local Historical Society/Museum Curators
- Authors reading on-line/Q & A Sessions
- Interview a historian, geographer, political scientist, activist, economist: college professor



# 7. Pursue Kids' Own Questions with *Mini-Inquiries*

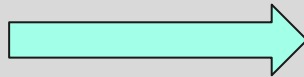


*Students research their questions, share their findings, and present to the class/audience/teacher.*

*Depending on interest of a questions, students could collaborate on a question.*

**Ways Kids can show their learning by:**

- Create a Sketchnotes
- Write a **Summary**
- Write an **Informational Paragraph(s)** with **Text Features**
- Create a **Wonder Website**



**Student Websites:**

- [Student Wonder Website](#)
- [Another Student Wonder Website](#)

# QFT: Question Formulation Technique

## Start with a SOURCE:

- Statement
- Quote
- Short Video
- Image
- Painting

## Steps of Process:

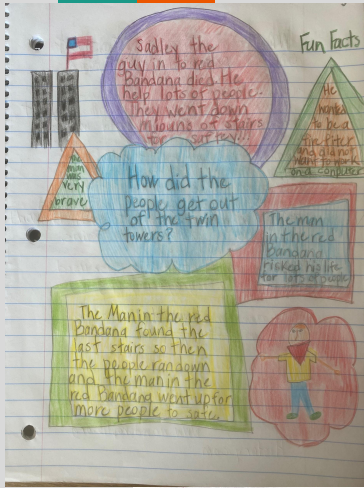
1. Ask Questions
2. Open/Closed
3. Prioritize Questions
4. Answer Questions with claims and evidence

[Video Link](#) QFT Example

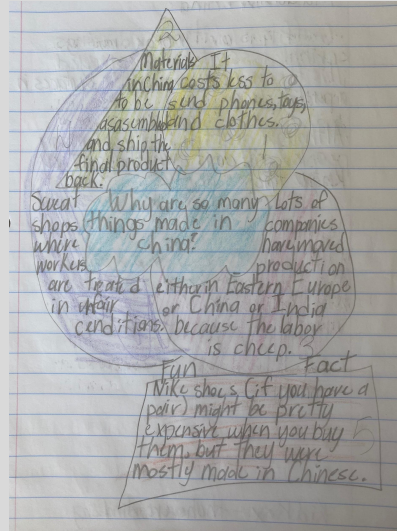
## RULES:

- Ask as many questions as you can.
- Do not stop to discuss, judge or answer any questions.
- Write down every question exactly as it is stated. Number questions.
- Change any statements into questions.

# Ways Kids Can Share Their Questions....



How did people get out of the Twin Towers? (Sketchnotes)



How did people get out of the Twin Towers? (Sketchnotes)

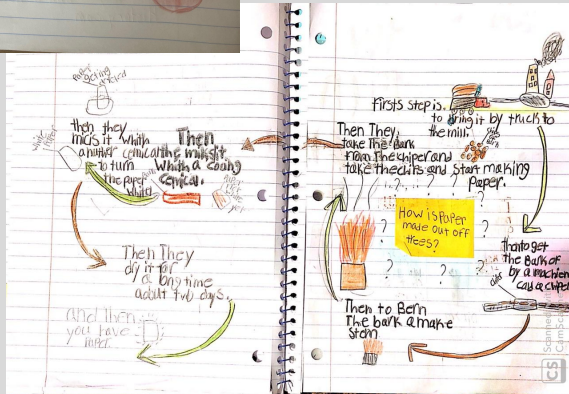


Why are so many things made in China?  
 • It costs less to send phones, toys, and clothes.  
 • Materials in China, to be assembled and ship the final product back.  
 • Lots of companies have moved production either in Eastern Europe or China and India because the labor is cheap.  
 Fun Facts:  
 • MIKE shoes (if you have a pair) might be pretty expensive when you buy them, but they were mostly made in Chinese.  
 • Sweat shops where workers are treated in unfair conditions.

How does movement impact people? (Sketchnotes)

Why is so much made in China?

How is paper made out of trees? (Steps in a Process)



How is paper made out of trees? (Steps in a Process)



# Questions or comments????



Students, write your response!



# 8. Address Curricular Units with Mini-Inquiries

Using Text Sets for students to investigate compelling and supporting questions.

## At-a-Glance: Text Sets

- [Kindergarten](#)
- [1st grade](#)
- [2nd grade](#)
- [3rd grade](#)
- [4th grade](#)
- [5th grade](#)



### [American Indians and Westward Expansion](#)

◆ [Expansion and Reform \(1801-1861\)](#), [US History](#)



### [Buxton: A Lost Utopia](#)

◆ [Development of the Industrial United States \(1870-1900\)](#), [Emergence of Modern America \(1890-1930\)](#), [African Americans, Social Movements](#), [US History](#)



### [Caucuses and Elections](#)

◆ [Expansion and Reform \(1801-1861\)](#), [Civil War and Reconstruction \(1850-1877\)](#), [Development of the Industrial United States \(1870-1900\)](#), [Emergence of Modern America \(1890-1930\)](#), [Postwar United States \(1945-early 1970s\)](#), [Law & Government](#)

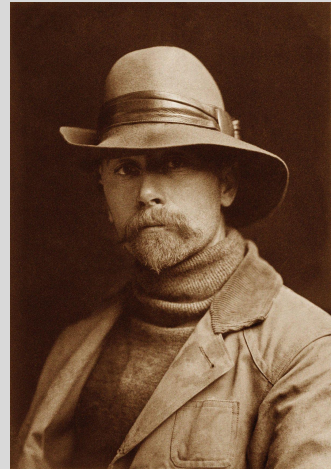
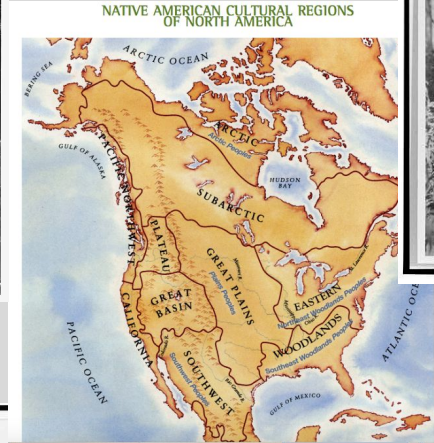
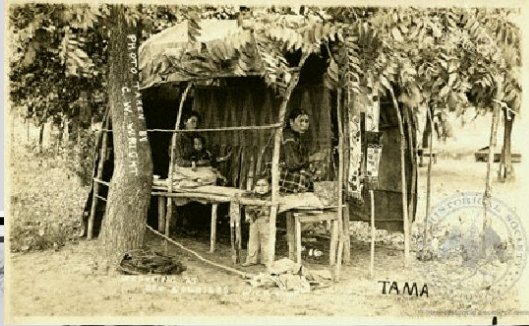


### [Children's Lives: Comparing Long Ago to Today](#)

◆ [Development of the Industrial United States \(1870-1900\)](#), [Emergence of Modern America \(1890-1930\)](#), [Great Depression and World War II \(1929-1945\)](#), [US History](#)

# Supporting ?: Who Are the Native Americans?

## Analyzing Images

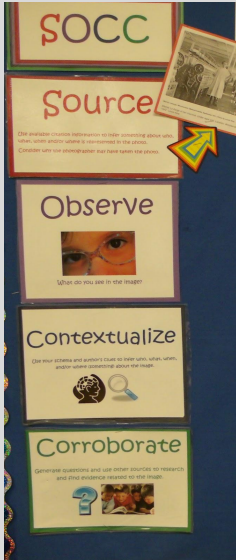


[Link to images](#)



# SOCC... Source, Observe Contextualize, Corroborate

[Link](#)



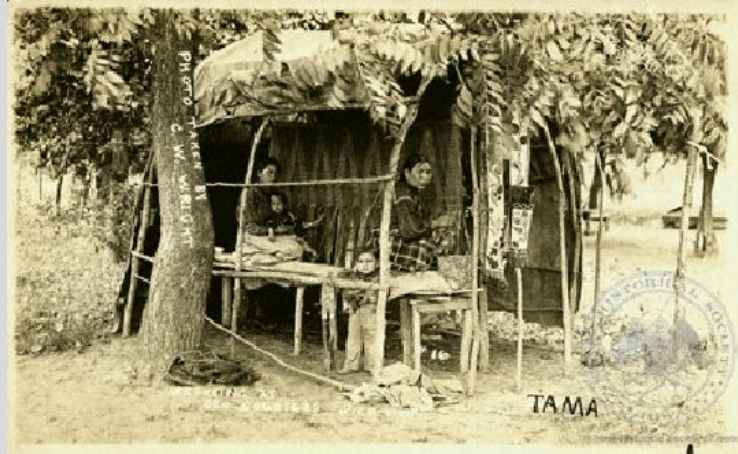
**Source:** read and think about the author and author and information

**Observe:** look and think about what you see

**Contextualize:** use background knowledge and author's clue when deciphering a "text"

**Corroborate:** ask ?'s, make claims based upon evidence

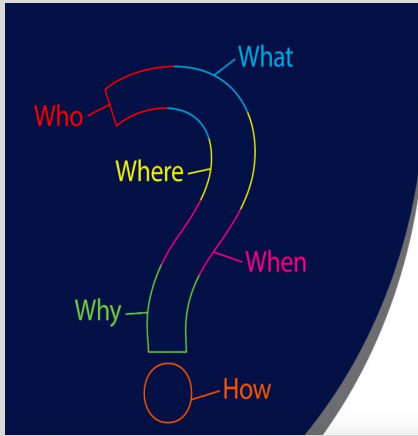
[Link](#)



Weaving in Wickiup in Tama, Iowa. Photo taken by C.W. Wright. Image found at The Iowa State Historical Society.

**Links to Graphic Organizers and Poster:**  
[SOCC Article](#), [SOCC Poster](#), [Student Handout](#)  
[Comparing IT](#), ["I See, I Think, I Wonder" Sheet?](#), [KWL Chart](#), [Image Analysis Guide Sheet](#), [Image Analysis Guide](#)

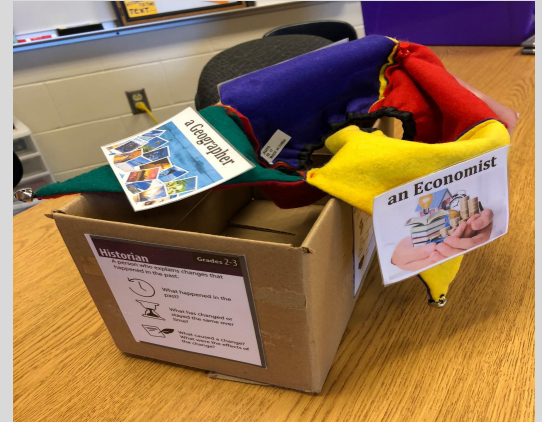
# Using the Box



Anchor [Lesson Plan](#)

<b>Geographer</b> Grades 2-3 A person who studies the environment and how it impacts people. Where is this place? Why would people move or leave this place? How can we describe the people in this place?	<b>Economist</b> Grades 4-5 A person who studies the ways people make a living. How do people meet their needs and wants? What goods and services are being produced and consumed? How does jobs impact people and the economy?
<b>Historian</b> Grades 2-3 A person who explains changes that happened in the past. What happened in the past? What has changed or stayed the same over time? What caused a change? What were the effects of the change?	<b>Political Scientist</b> Grades 2-3 A person who studies governments and how they work. What problems are people facing? What rights do people have? Are people being treated fairly?

## QUESTIONING BOX



[\\*Thinking Like A.....Elementary](#)

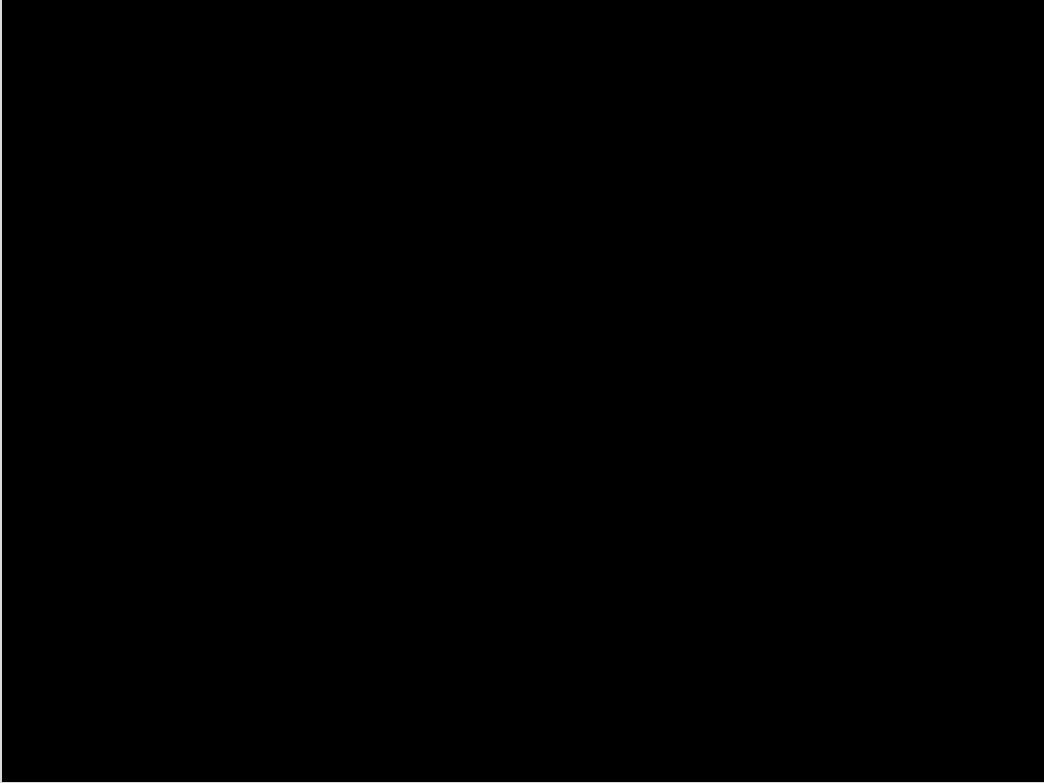
[\\*Middle School](#)

[\\*High School](#)

# Students Sharing: Thinking and Questions

K <small>(what we think we know)</small>	W <small>(what we want to know)</small>	L <small>(what we hope to learn)</small>
<b>People:</b> American Indians from Meskwaki	<b>Why do you think they're doing this?</b> They want to remember the confederacy	<b>Where could you find the answers?</b> Court case of the Iowa State Historical Society
<b>Objects:</b> Wooden sticks	<b>When do you think this picture was taken? How do you know?</b> 1920 we inferntel	<b>Questions this photo raises:</b>
<b>What are they doing?</b> pacing sitting and sanding		

Historian	Geographer
Why are they needing to translate there messages? Are sac and Fox the same as Meskwaki.	Where is this war in 1941 that they are doing messages for?
Economist	Political Scientist or Activist
Are they making any money?	What war is this? what are they fighting over?



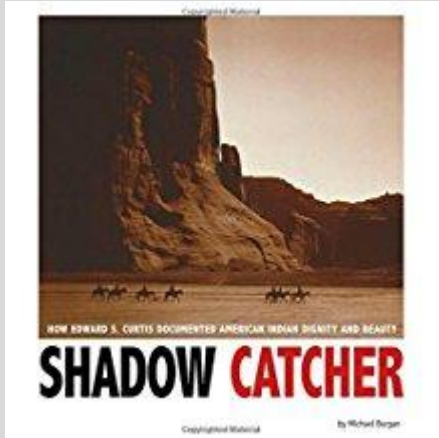


Choice Boards: [Meskwaki](#), [Edward Curtis](#), and [Native American Regions](#)



# Texts Used to Answer Questions

Whole Group  
Interactive Read Alouds



NEWSELA

### Before Columbus: Native American Cultures

By History.com, adapted by Newsela staff on 11.21.16  
Word Count #12



A Native American of the Hopi tribe performs traditional ceremonial dances at the south rim of the Grand Canyon National Park near Hagerup, Arizona, June 6, 2009. *Dave Diering/Diering, Getty Images*

Christopher Columbus gets a lot of credit for discovering America. But people were already living in America when Columbus arrived.

They were related to today's Native Americans. These people came from Asia. They arrived in America more than 12,000 years ago.

Historians think of them as several different groups. This is based on how they lived. For example, they may have spoken the same language. Or, they may have hunted the same animals. Most were also moved off their lands by the government.

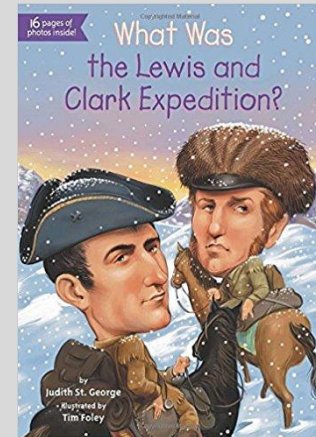
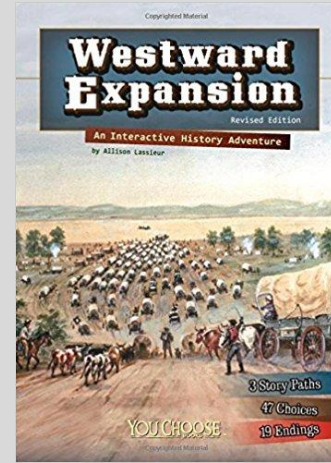
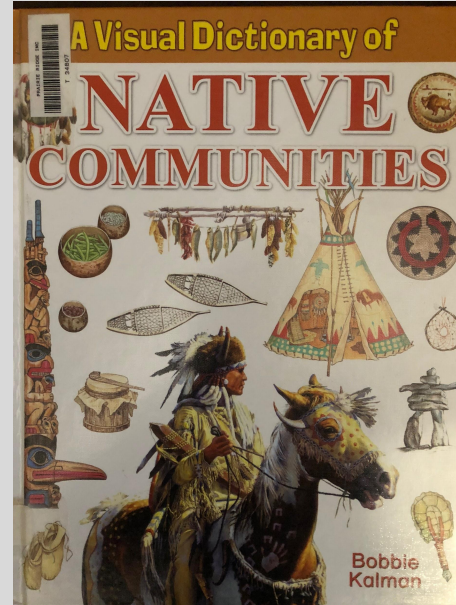
Native Americans have lived in many different areas. They lived in 10 areas of Canada and the U.S. Here are each of those areas:

#### The Arctic

The Arctic group lived in today's Alaska, Canada and Greenland. Most were related to Eskimos and Aleuts today.

This article is available at 5 reading levels at <https://newsela.com>.

1



Small Group  
Texts to match image analyzed

# Posting Questions....

**or reasons cause people to move from one geographic area to another?**

**Who are the Native Americans? Who are the Meskwaki?**

**Native American Regions**

**The Far North**

**The Northwest Coast**

**Nations of the Plains**

**People of the Southwest**

**People of the South**

**EDWARD**

**He showed how they lived**

**Cared for Native Americans**

**ACQUIT**

**Kinda like what Native Americans did**

**Documented American and Beary**

**W.B. BEAN**

**Witness to the West**

**SHADO**

**Discover gold in Westwood**

**S.D. NELSON**

The bulletin board is a collage of educational materials. At the top, two questions are pinned in white boxes. The central theme is 'Native American Regions', with a large map of North America divided into several regions. Each region has a corresponding hand-drawn poster: 'The Far North' (with a map and text about clothing and food), 'The Northwest Coast' (with a map and illustrations of buildings and people), 'Nations of the Plains' (with a map and drawings of a bison and a tipi), 'People of the Southwest' (with a map and drawings of a cactus and a person), and 'People of the South' (with a map and drawings of a person and a landscape). A portrait of Edward S. Curtis is pinned at the top left, with handwritten notes about his work documenting Native Americans. On the right side, a large section is covered with numerous orange sticky notes, many of which contain handwritten text and small photos. At the bottom, there are several book covers, including 'Witness to the West' by W.B. Bean, 'Shado' by S.D. Nelson, and 'Discover gold in Westwood'. The board is decorated with a colorful border on the right side.

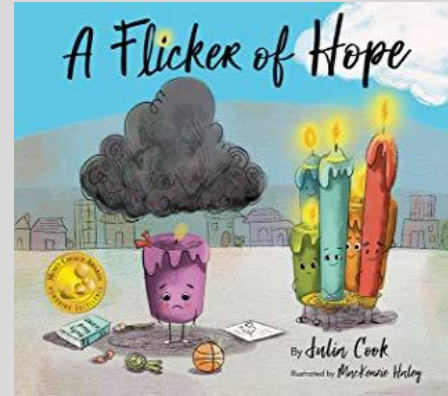


**Questions or comments????**



"While it is a "tough choice" to know when to investigate and when to simply leave alone, "this is where the heart and the art of the teacher comes in."  
~Harvey Daniels

## 9. Lean Into A Crisis



Newsela: [Coronavirus Resources for students](#)

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# 10. Learn With Partners and Pioneers.....

Glenwood Elementary, Greenfield, WI

Eason Elementary, Waukee, IA

Duke School, Durham, NC

[kheckart@crprairie.org](mailto:kheckart@crprairie.org)





## Contact information:

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