How to Effectively Integrate: Let Us Explore Through an Integrated Lesson Part 2

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See, Think, Wonder

See, Think, Wonder Support

What do you notice?	What do you think?	What do you wonder?

Teachers Note

Prior to the lesson we are about to embark on, students should have previously studied the explorers named in standard SS3H2. Students should be aware of the explorers and the obstacles they faced.

Background information can be found in the 3rd grade teacher notes
3rd Grade Teacher Notes on GeorgiaStandards.org

Explorers: How did the explorers survive?

Third Grade Lesson

Description:

A lesson about how important heat was to the survival of explorers and how it enabled the explorers to adapt to the environments they were exploring. This lesson ends with students designing a device to help explorers harness heat.

Cross Content Standards

Math

MGSE3.NBT.1: Use place value understanding to round whole numbers to the nearest 10 or 100.

Social Studies

SS3G3: Describe how physical systems affect human systems.

b. Describe how the early explorers (SS3H2a) adapted, or failed to adapt, to the various physical environments in which they traveled.

Science

S3P1: Obtain, evaluate, and communicate information about the ways heat energy is transferred and measured.

- Ask questions to identify sources of heat energy. (Clarification statement: Examples could include sunlight, friction, and burning.)
- Use tools and everyday materials to design and construct a device/structure that will increase/decrease the warming effects of sunlight on various materials. (Clarification statement: Conduction, convection, and radiation are taught in upper grades.)

English Language Arts

ELAGSE3RI3: Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Recording Information

- As students are learning about the explorers, have students record pertinent information.

Explorer	Dates	Sponsor	Purpose	Obstacles	Accomplishments
John Cabot					
Vasco Nunez Balboa					
Hernando de Soto					
Christopher Columbus					
Henry Hudson					
Jacques Cartier					

[3rd Grade Sample Lessons on GeorgiaStandards.Org]

Supports for Recording Information

Students having accurate information is crucial for the lesson. Consider the following supports to ensure success.

- Provide a partially completed organizer to reduce the amount of work.
- Provide students with a completed copy of the organizer.
- Help students highlight important information.
- Allow students alternative ways to complete the organizer: voice to text, typing, etc.

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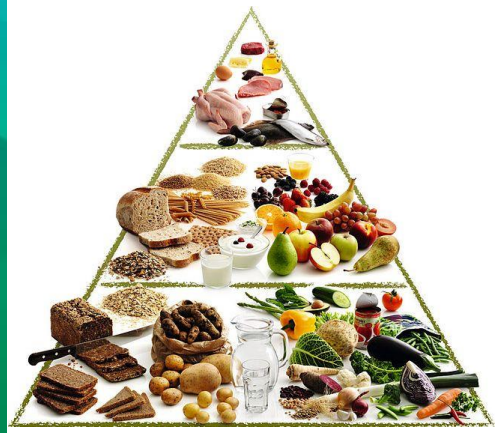
[3rd Grade Sample Lessons on GeorgiaStandards.Org]

Make Real World Connections

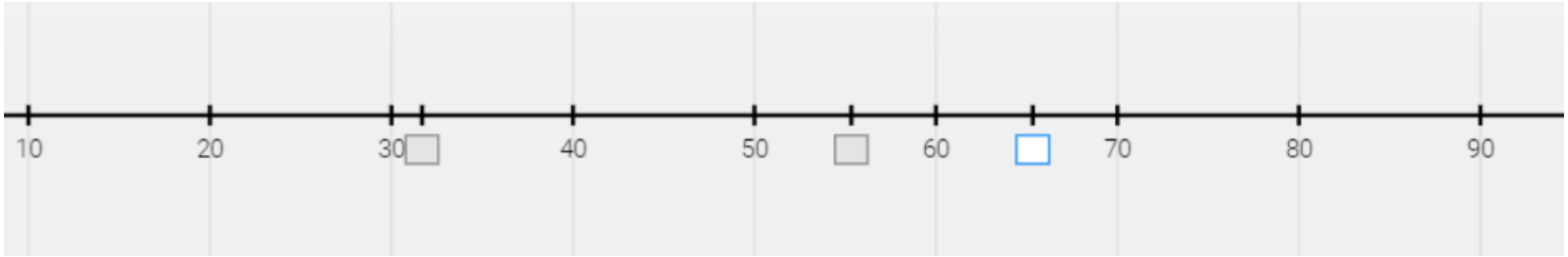
- Have you ever been camping?
  - What did you need while you were camping?
  - How did this experience compare with what the explorers faced?

What Did Explorers Need to Survive?



What Did Explorers Need to Survive?

- Context, context, context



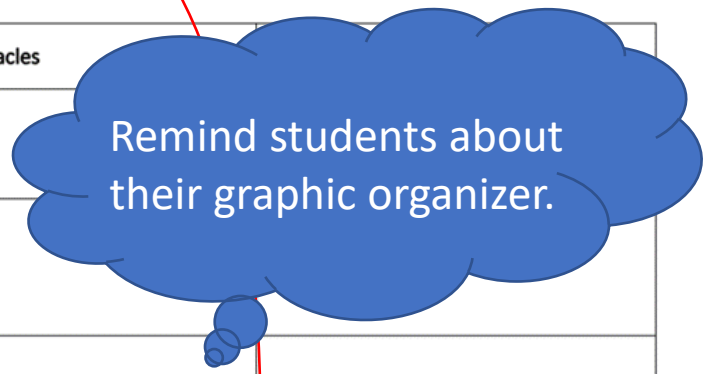
Discussion

You are traveling to a place that no one has ever traveled.

- Does your list of needs change?
- Would you add anything else to the list?
- What problems might you face?

The Difficulties They Had…

Explorer	Dates	Sponsor	Purpose	Obstacles	
John Cabot					
Vasco Nunez Balboa					
Hernando de Soto					
Christopher Columbus					
Henry Hudson					
Jacques Cartier					



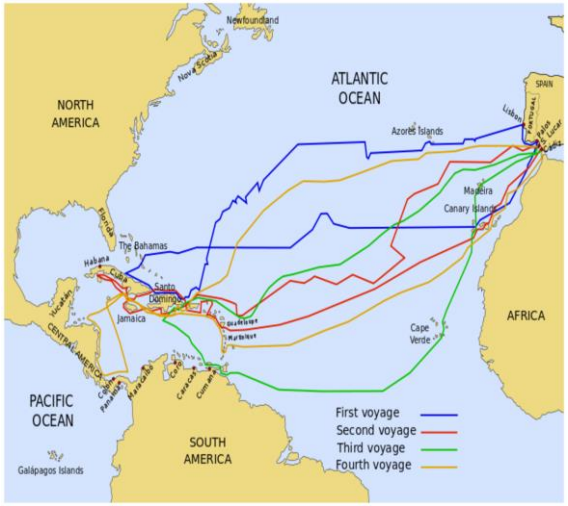
The Difficulties They Had…

- Have students review their explorer organizer. Start a class discussion.
  - What obstacles did the explorers have in common?
  - What additional obstacles do you think they may have faced?

The Difficulties They Had…

- Support the discussion
  - Give all students the opportunity to speak.
  - Value student voice.
  - Give students the opportunity to think about the question/topic before asking students to talk.
  - Provide students with the opportunity to speak in pairs before asking them to speak to the whole group.

Oh, the Places They Went!

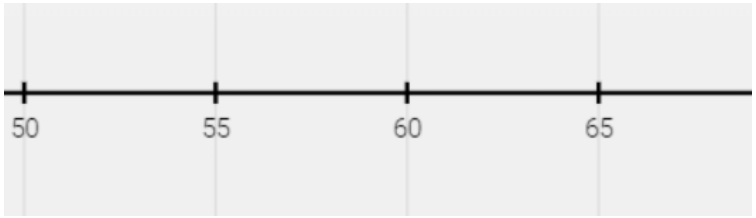


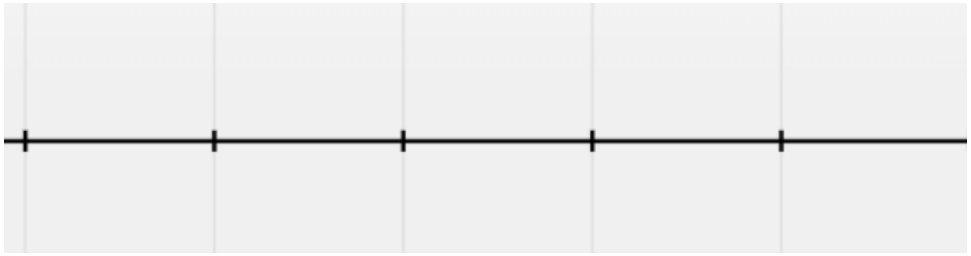
- Look at the explorer map.
- Plot where the explorers traveled.
- What temperatures did they face?
- How does their location impact the obstacles they faced?
- Supports:
  - Students can complete a graphic organizer to chart their responses.
  - The teacher can also review the map with the students and plot whole group. Students can also work in small groups to complete the graphic organizer and map plotting.

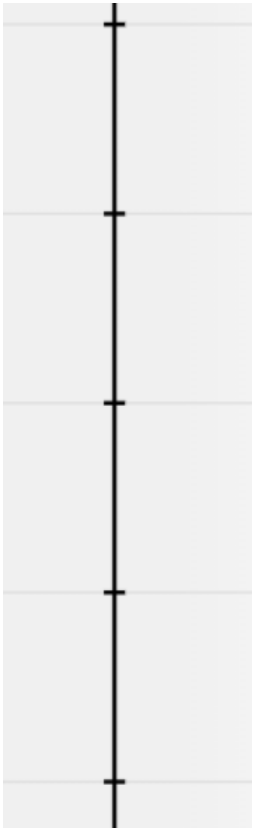
Oh, the Places They Went!
Sample Graphic Organizer

	Where did the explorers travel?	What temperatures did they face?	How did the location impact the obstacles they faced?
Destination 1			
Destination 2			
Destination 3			
Destination 4			
Destination 5			

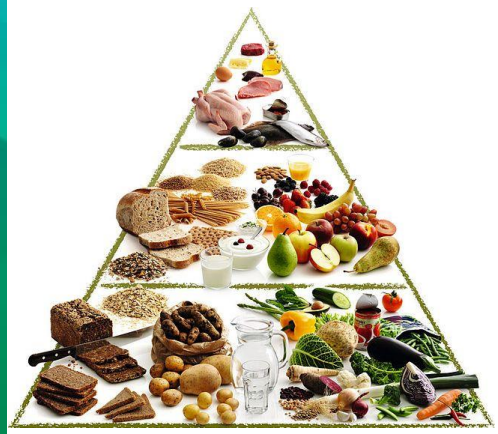
Oh, the Places They Went!
Working with Various Number Lines







What Did Explorers Need to Survive?



Heat

- Do you think heat was important to the explorers? Justify your thinking.

Supporting Students:

- Have various formats for students to share their knowledge:
  - Written
  - Images
  - Recording (audio or video)
- Provide tools to assist students in sharing their knowledge such as prompts or speech-to-text.

5 W's and an H

Prompt if needed: Remember that we are focusing on the explorers needing heat.

1. Look at an image.

2. Use 2 of the question words to write or ask a question about the image.

3. Use questions as a springboard or refer to the questions throughout the unit.

Student Question Examples

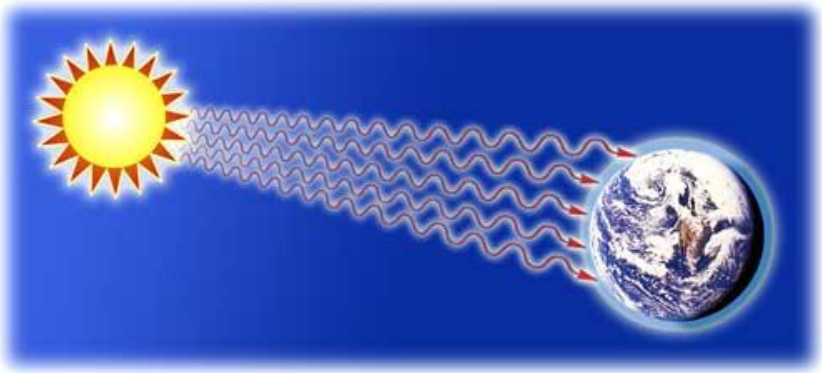
- Why can't explorers just turn on the heat?
- What could help explorers keep warm?
- Why did explorers only explore cold areas?
- How would explorers find heat in the wilderness?
- Where does heat come from?
- Why is heat important?

Exploring Heat

- Rub your hands together for 30 seconds.
- What do you notice?
- This is an example of heat from friction.

Exploring Heat

- This is an example of heat from sunlight.



- Go outside and stand in the sun for 2 minutes.
- Now go stand in the shade for 2 minutes.
- What do you notice (similarities and differences)?

Exploring Heat

- Have you ever had a fire at home in a fireplace or while camping?
- What did you notice about the fire?
- This is an example of heat from burning.

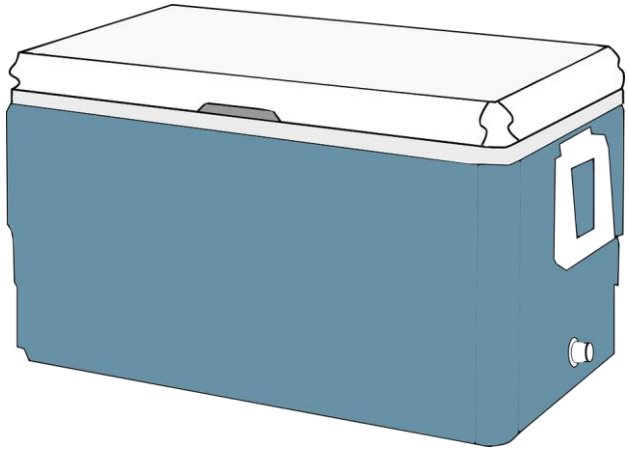
Putting It Together

- How might explorers have used each of these types of heat to survive?

Now Compare Sources of Heat

- Do the sources of heat put off the same amount of heat?
- What causes heat?
- What source of heat would be best for the explorers? Why?

How Do Humans Keep Things Warm or Cool?



Using Heat

- Use your knowledge to design and build a device to help keep the explorers warm or cool.
- The device must have a way to monitor temperature.
  - After you design and build your device, collect data (temperatures to the nearest 10 degrees) to see if the device works as you intended.

Communicate

- Share the heating/cooling device you designed.
- Explain the thinking behind the device design.
- Share your data and if the device worked as intended.
- Now, talk about how it would have helped exploration.

Next Steps

- Discussions
- Revise devices
- Pose additional questions: Why was heat important to the explorers? What other things can you think of that may have been important to the explorers? What additional problems do you think they may have encountered?
- Allow students time to reflect on what they learned through discussion and/or writing in their journals
- Write a journal entry from the perspective of an explorer with and without your heat device.

Equity Instructional Planning Look Fors

Equity Instructional Planning Look Fors

Big Ideas	Teacher Look Fors	Student Supports
Content Standards	This lesson aligns to the Georgia Standards of Excellence. This lesson addresses all parts of the Georgia Standards of Excellence (not just the content).	**All** our students should be working toward learning the content that is outlined in the Georgia Standards of Excellence. Making content more accessible for all students can be accomplished using High Leverage Practices. These high leverage practices can be used to in every classroom to assist students in learning the material. *Some examples of high leverage practices are providing scaffolded supports, use explicit instruction, use flexible grouping and use strategies to promote active student engagement. More information is available on the CEEDAR-GA Project website. Use the following link to access that information: Georgia Department of Education*
Multiple Modalities	This lesson utilizes the principles of Universal Design for Learning to assist ALL students in accessing, using and expressing the material.	Present materials in multiple ways. *This could include using articles, videos, verbally explaining to the student, making the lesson tactile, making the lesson visual and having inquiry.* The students should be able to show their knowledge in multiple formats. *Some of these formats could include writing, verbally explaining, discussion, creating a play, drawing or creating a presentation.*
Coherent Instruction	This lesson considers the needs of students in the classroom and provides for the needs of those students using differentiated instruction to reach ALL students.	Providing equity in the classroom can take many forms depending on the student population which leads to the importance of differentiated instruction. The teacher should consider student needs and then differentiate instruction. A few examples of things to consider when differentiating are included below: • Add some time for students to process material. • Provide explicit instruction in using graphic organizers, other instructional materials and social-emotional behaviors. • Chunking the material. • Repetition may be required for some students. • Provide visual representations.
Individualized Education Program	This lesson is providing Specially Designed Instruction for each student with disabilities in the classroom.	The IEP Team determines the individualized accommodations that each child requires to be successful in the general education classroom. Ensure that the lesson adapts content, methodology and delivery of instruction as part of Specially Designed Instruction to address each student's unique needs in the class based on their disability to ensure access of the child to the general curriculum so that students can meet the same education standards that apply to all children. More information is available at the following link Georgia Department of Education.

Equity Instructional Planning Look Fors document

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Applying the Look For Document to This Lesson

Part of Lesson	Content Standards	Multiple Modalities	Coherent Instruction	Individualized Education Program
Brainstorming	SS3G3b S3P1a,c ELAGSE3RI3 MGSE3.NBT.1	Verbally, in writing, drawing	Guiding questions, graphic organizer	Determined by IEP team for each individual student
Discussion		Share in multiple formats, share anonymously	Give questions in advance, time	
Asking Questions		Having students ask questions, discuss questions	Question stems, graphic organizer	
Exploring Heat		Investigations, books, articles, images	Graphic organizers, time, discussions, guiding questions	
Using Heat		Drawing, writing before making design	Give checklist, rubric, graphic organizer, guiding questions	
Communicate		Written, verbally, videos, drawings	Time, different formats, option to share anonymously	

Work Session

Your tasks for this work session:

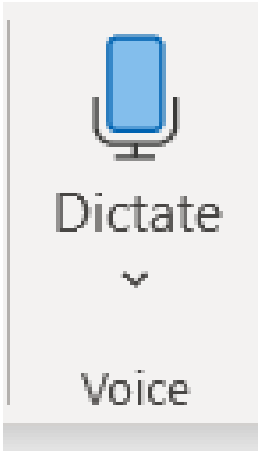
1. Evaluate the standards you chose in part 1 and find connections between contents.
2. Then, use the standards from Part 1 to design an integrated activity or lesson.
3. Be prepared to share!

Reflection

- How did you find the connections between the standards?
- What sort of activity or lesson did your group design?
- What worked well for your group?
- What was an obstacle that your group had to overcome?

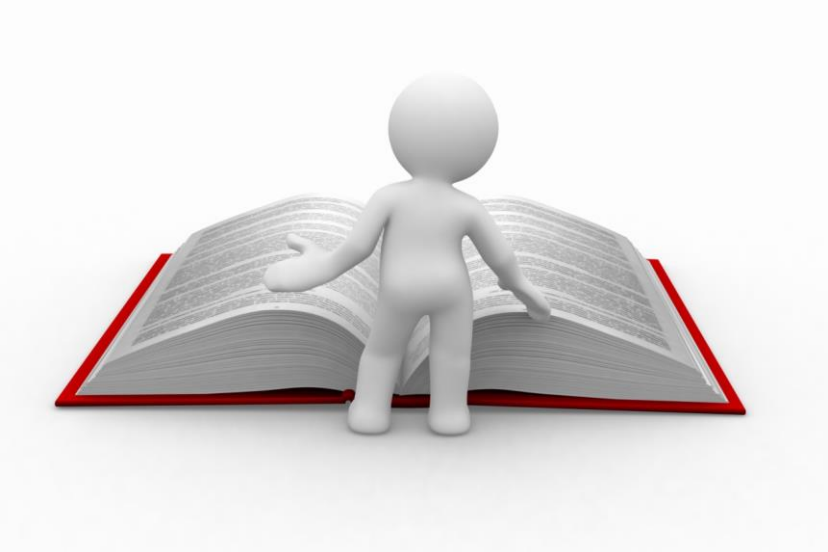
Resources

- Dictate in Word
  - Record thoughts and ideas
  - Writing assignments
- Recording in PPT
- Read aloud in Word
- Check accessibility in Word and PowerPoint



Resources

- Rewordify.com
- Announcify- chrome add on
- Natural Reader- website



As You Reflect Today

1. What is the biggest take away from our presentations today?

Please provide feedback by completing the following survey:

Session Title: Integration Part 2
Presenters: Colley, Sexton, Shirley-Stevens, Zoumberis

Link to Survey: bit.ly/2G41KHi

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Preparing students

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