



Cross Curriculum Lesson Plans

Magic Tree House #12: Polar Bears Past Bedtime

Where can I find facts and opinions in literature?
What adaptations help Arctic animals survive in their habitat?

Lessons for Whole-Class Reading

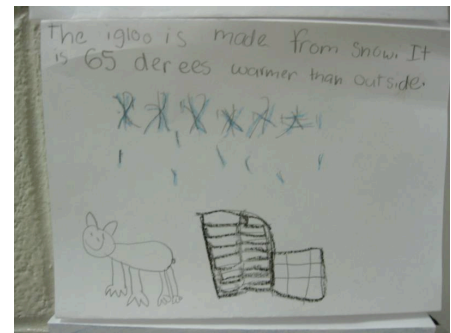
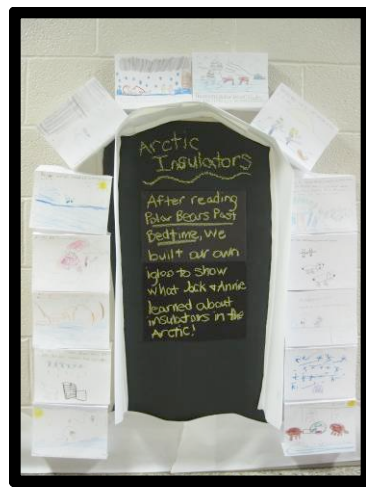
Materials:

- Computer with a connection to a TV or Smart Board
- Copies of Reading Guides and Reading Guide Key
- Rubrics in Accompanying Materials
- Project Menus for each student (in Accompanying Materials)
- Large paper for prior knowledge chart (optional: draw a polar bear to write on!)

Procedures:

1. Introduce *Polar Bears Past Bedtime* by giving students two minutes in small groups to write down everything they know about polar bears. Share as a class. Combine ideas on the polar bear knowledge chart.
2. Next, pre-assess students' knowledge of facts and opinions through discussion or written response. Distribute "Arctic Fact and Opinion Cards" (in Accompanying Materials) to small groups and have groups attempt to sort the cards into fact and opinion groups. After the first attempt, review facts and opinions and discuss how students placed their cards.
3. Here are suggested activities to use with certain chapters.
 - Before Chapter 2: Give "Dogsledding Fact and Opinion Cards" (in Accompanying Materials) to small groups to sort into facts and opinions. Then watch clip about dogsledding at <http://www.youtube.com/watch?v=e4HUWTCEuL0> (stop at 1:00).
 - Chapter 3: Show a picture of dog mushing (<http://player.discoveryeducation.com/index.cfm?guidAssetId=F0F22B29-0636-487D-87B6-F650400420B3&blnFromSearch=1&productcode=US>). Then, write a story from the perspective of a dog on the team or the person leading the team.
 - Chapter 4: Brainstorm ways for animals and people to obtain food and shelter in a cold climate.
 - Chapter 5: Ask students to generate one fact and one opinion about polar bears, either independently or in small groups.
 - Before Chapter 7: Show a picture of the Northern Lights. Ask each student to share one word that comes to mind when they see the image. Try not to repeat words! After reading the chapter, watch a video about the Northern Lights at <http://player.discoveryeducation.com/index.cfm?guidAssetId=8B99777E-8203-4B7B-A54E-3543FB4145CE&blnFromSearch=1&productcode=US>.
 - Chapter 10: Brainstorm natural and man-made insulators that animals and people use to

5. Once the entire class finishes reading the book, allow students to pick a project from a project menu. The menu is in the Accompanying Materials.
- Write a diary from the perspective of a Native American person living in the tundra. Where did you get food? Where did you live? Include at least four facts from the book and two opinions you make up on your own.
 - Create an "Arctic Survival Kit." Make a pamphlet of survival tips for finding food and shelter and include at least three insulators you would find in the Arctic.
 - Invent a new animal that will live in the Arctic. Construct the animal and write a paragraph about the animal's special adaptations that will help it survive. Don't forget a creative name!
4. As an entire class, construct an igloo. Directions are included later in this document.



Lessons for Independent Reading

- Complete the Reading Guide to demonstrate reading comprehension.
- Complete a project or multiple projects from the “Pick a Project” menu.

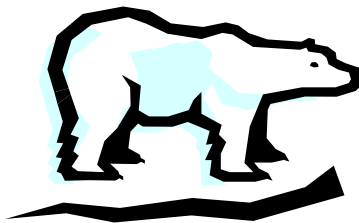
Lessons for Literature Circles

- The “The Mystery of the Ancient Riddles” cluster includes *Dolphins at Daybreak*, *Ghost Town at Sundown*, *Lions at Lunchtime*, and *Polar Bears Past Bedtime*. In these books, Jack and Annie are trying to solve an ancient riddle.
- Students can jigsaw read in groups of 4-8 and then regroup in literature circles to find connections among the books.
- The entire class can do literature circles with these four books simultaneously to compare and contrast the different story elements.
- Each student will complete activities associated with their book. Then, they can present their findings to other students in the class.
- Additionally, this cluster would lend itself nicely to a class riddle study. Students can choose to write their own riddles and accompanying adventure stories!

Assessment

All assessment materials are in the Accompanying Materials.

- Reading Guide
- Literature study Rubric
- Culminating Task Rubric



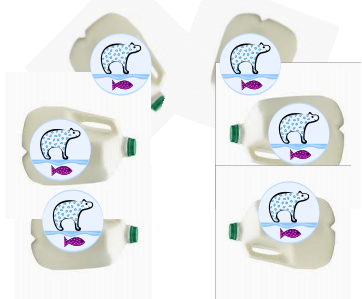
How to Create a Learning Igloo

For a whole-class project, each student will make one block for a class igloo. Each block will contain one fact about an insulator that can help people or animals survive in the Arctic and how it helps. Then they will illustrate their fact. These blocks can either be made by gluing paper to milk cartons, or they can be completely constructed from paper. A rubric for assessment is included in the Accompanying Materials.

Procedures:

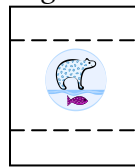
1. As you read *Polar Bears Past Bedtime*, highlight significant insulators. The igloo is an especially interesting one—students will likely not think that something as cold as snow can serve as an insulator! Also, discuss the specific adaptations of the animals that help them survive. If you chose to use the “Reading Guide,” then these connections were already made in the questions throughout the book.
2. At the end of the book, brainstorm the numerous forms of natural insulators in the Arctic. How does each one serve as an insulator?
3. Explain that we will create our own class igloo to display what we have learned about insulators in the Arctic. Students are responsible for writing one fact about Arctic insulators and then providing an illustration to accompany their fact. There are two ways to build this igloo.
 - Milk Carton Igloo: Acquire a gallon-sized milk jug for each student in your class. Cut a piece of plain computer paper the same size as one side of the milk jug for each student. This will be the student’s work space, and later you will glue it to the side of the milk jug. Use high-temperature hot glue to connect the milk jugs to each other.
 - Paper Block Igloo: This igloo can be made using only paper. Ask students to hold their paper in its tall orientation (“hamburger style”) and then fold the top and bottom two inches of the paper back. (The teacher may wish to do this for the students before starting the activity.) The folded-back flaps will help the block be three-dimensional when the igloo is constructed. When all student blocks are finished, the teacher will have to add a 1-inch wide strip of paper to the edges of the folded-back flaps to give the paper support. These support strips are what can be easily glued or taped to a wall.

Milk Carton Version:

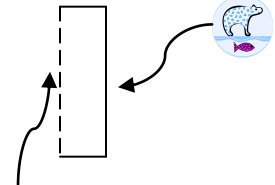


Paper Block Version:

Fold along dotted lines.



Side view:



This is where the 1-inch support strip connects. Place in the middle of the paper.

***Polar Bears Past Bedtime* Unit:**
Accompanying Materials

Arctic Fact and Opinion Cards (give to small groups to sort)

The Arctic stays cold and dark for months on end.	The Arctic is a terrible place to live.
The Arctic is a cold desert because precipitation is rare.	The Arctic is the most beautiful land on earth.
The North Pole is in the Arctic.	I want to live in the Arctic.
The Arctic is the land in the area on a globe called the Arctic Circle.	The most amazing animals live in the Arctic.

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The Arctic is the land in the area on a globe called the Arctic Circle.	The most amazing animals live in the Arctic.

Dogsledding Fact and Opinion Cards (give to small groups to sort)

On a dogsled, there are two lines of dogs.	The Siberian Husky is the prettiest dog.
Each dog is attached to the gangline with a harness.	The people who lead the dogs have the best job in the world.
Dogs are given food and water before people.	Dogsledding would be fun.
When going up a hill, the person must get off the sled to help the dogs.	The dogs look silly as they run.

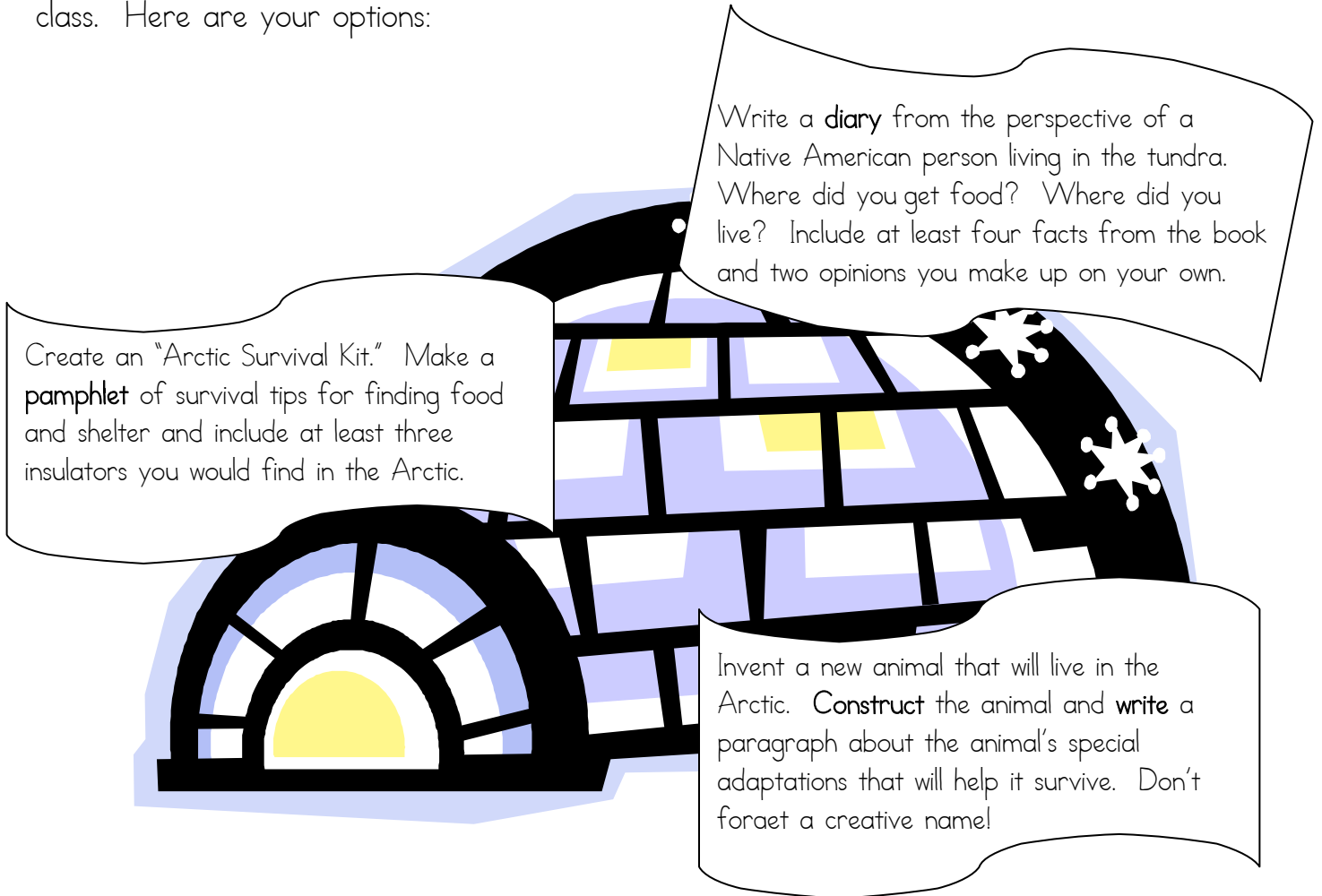
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Name: _____ Date: _____

PICK A PROJECT!

Now that you've finished reading *Polar Bears Past Bedtime*, pick a project to share with the class. Here are your options:



RUBRIC:

	3	2	1
Directions	Student followed all directions.	Student followed some directions.	Student followed few directions.
Detail	Student includes many important details from reading.	Student includes some important details from reading.	Student includes few or no important details from reading.
Creativity	Project is creative, unique, and relevant.	Project is somewhat creative, unique, and relevant.	Project is not creative, unique, or relevant.
Time	Student stayed on-task the whole time.	Student stayed on-task some of the time.	Student did not stay on task.

TOTAL: ____/12= _____ **COMMENTS:**

Learning Igloo Rubric: Use these to send grade reports home. Multiple are on a page to save paper!

LEARNING IGLOO RUBRIC Student Name: _____

	3	2	1
FACT	Fact is relevant to the Arctic and accurate. It is represented as a complete sentence.	Fact is either relevant to the Arctic or accurate. It is represented as a complete sentence.	Fact is neither relevant to the Arctic nor accurate. It is not represented as a complete sentence.
ILLUSTRATION	Illustration depicts fact neatly with many details.	Illustration depicts fact neatly with a few details.	Illustration does not depict fact neatly with details.
TIME ON TASK	Student spent entire working time on task.	Student spent most of the working time on task.	Student spent little of the working time on task.
PRESENTATION	Student could explain fact and illustration and listened attentively to others.	Student could somewhat explain fact and illustration and sometimes listened to others.	Student could not explain fact and illustration or listen attentively to others.

TOTAL POINTS: ____/12=_____

COMMENTS:

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COMMENTS:

Student Grading Rubrics: Use these to send grade reports home. Multiple are on a page to save paper!

Literature Circles Rubric

Name: _____

Book Title: Polar Bears Past Bedtime

Tracks text while listening	Prepared to read	Participates in discussion/ Reading guide	Controls voice/body	Uses time wisely	Shows cooperation	Total Points	Comments:
____/10	____/10	____/10	____/10	____/10	____/10	____/60=____	

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Teacher Grading Rubric: Use this to document grades easily. Add more rows for more students.

Book Title: Polar Bears Past Bedtime

For each off-task behavior, mark off one number (starting with 10).

	Tracks text while listening	Prepared to read	Participates in discussion/ Reading guide	Controls voice/body	Uses time wisely	Shows cooperation
1.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
2.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
4.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
5.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
6.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
7.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
8.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
9.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
10.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
11.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
12.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
13.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
14.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
15.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
16.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
17.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
18.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
19.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
20.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
21.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
22.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
23.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
24.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1
25.	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1	10 9 8 7 6 5 4 3 2 1