

General Information

Lesson Parts & Duration

Total Duration: 1 to 1 ½ hours

Polar Bears: Key Details, Vocabulary and Classifying

Subject(s)

- ELA; Informational Text: A Polar Bear's Body
- Synthesizing of Text, Key Details, Vocabulary & Classifying (RI.4.1-4.5)

Objective

- Students will take literal interpretation of informational text to evaluation and synthesizing.
- <u>Students will</u> complete a graphic organizer to classify the three main parts of a polar bear's body.

Materials

- Required: copies of Informational Text: "A Polar Bear's Body" by Jennifer Kaul (page 10) (1 copy per student)
- blank paper
- pencil & crayons/colored pencils
- document camera or whiteboard
- **Optional:** printable "Classifying Design" graphic organizer (page 11) or project using document camera for students to copy
- **Optional:** printable "Break Up Your Day" brain/movement break ideas (page 13)

Protocols (page 12)

- Used throughout lesson be familiar with each protocol.
- Place Protocols under a document camera (if available) as necessary throughout the lesson.

Throughout this lesson, you will find:

- Scripted Text indicates things that need to be said directly. Bullets starting with a "T" followed by italicized type indicate scripted text
- Clarifiers within scripted text are in orange
- * Teacher Directions indicate things you should be doing
- Side notes provide helpful hints, ELL strategies, differentiation and information
- Break Up Your Day (Brain/Movement Breaks) are in green boxes (at the end)

Remember!

Quality over quantity. All components do not have to be accomplished; lessons may be ended at any time and resumed later.



Instructional Plan: 90 minutes

Subject

• Polar Bears: Key Details, Vocabulary, & Classifying

Objective

- <u>Students will</u> take literal interpretation of informational text to evaluation and synthetization.
- <u>Students will</u> complete a graphic organizer to classify the three main parts of a polar bear's body.

Materials

- **Required:** copies of informational text: "A Polar Bear's Body" by Jennifer Kaul (1 copy per student) (page 10)
- blank paper
- pencil
- document camera or whiteboard
- Optional: colored pencils/crayons
- **Optional:** printable "Classifying Design" graphic organizer (page 11) or project using document camera for students to copy

Introduction

- *T* Today we are going to learn about polar bears, specifically a polar bear's body.
- T By a show of hands, how many of you have seen a polar bear at the zoo? Pause while students raise their hands.
- T Has anyone seen a polar bear somewhere other than the zoo? Again, pause to see if anyone raises their hand.
- T What comes to mind when you think specifically about a polar bear's body? Call on a few volunteers to share. Possible Answers: fur, paws
- *T* Polar bears are quite different from other bear species.
- T In today's reading, you will learn about these differences and about the body of a polar bear.
- T In a few minutes, you will have the opportunity to share what you already know about polar bears.
- T Before I hand out the article "A Polar Bear's Body", you will complete a KWL chart.

Pass out a blank piece of paper to each student.

Setting up the Paper

Topic

- T Write your name and date in the top right hand corner of your paper. Model for students to follow.
- T Now follow along with me while you make your own KWL chart on the paper I just gave you.

Either copy the following KWL chart on the white board, or use the document camera for students to copy your example.

What I Already KNOW	What I WANT to Know	What I Have LEARNED

- *T* You are going to complete columns 1 and 2 on your chart.
- *T* Remember, the topic is polar bears.
- T Please write that on your paper where it says "topic." Model this part for students to copy.
- *T* Think about what you already know about polar bears in general and what you want to know.
- T Our text today will focus on a polar bear's body so you will also want to include anything you already know about its body.
- **T** Please try to come up with at least two things to write in each of the two columns.
- T You can use bullets or numbers. Model this part for students.
- T I am looking forward to hearing what you have to say.
- *T* You may begin. Remember to complete columns 1 and 2 only.

Provide about 5 minutes to complete this task. Remember to walk around, amongst students, to make sure they are on task.

- T You are going to discuss with a partner next to or near you.
- T With your partner, please share a few things you wrote on your KWL chart. Allow about 2 minutes for
- T It sounds like some of you have a lot of prior knowledge on polar bears.
- T Let's take a few minutes to review as a whole group.
- *T* I would like to hear some of the things you wrote down.

Call on 3-5 students to share their ideas. You can use equity sticks, if available, or call on volunteers.

Distribute 1 copy of the Informational Text, "A Polar Bear's Body".

Vocabulary

- T As soon as you have your copy of the text on polar bears, please write your name on the top right corner.
- T First, I would like you to please read the text independently.
- **T** While you are reading I want you to try to circle at least one unfamiliar word in each paragraph.
- Then you also need to underline what you believe are the most important details in the text.

Students can complete this task with a pencil or colored pencils, if available. Remember to walk around, amongst students, to make sure they are on task and reading.

Read paragraph 1 of text aloud to students. Then stop for discussion.



..... On your feet/ Get ready to meet/ Go and Greet (should take less than one minute)

- Students stand up and put their hand up in the air
- Students find another student that has their hand up to have a "new" partner (and get them moving around)

- Once they are with their new partner, they put their hands down and face
- Throughout our lesson today we will be doing independent work, partner discussion and whole group discussions.
- T We will be using 3 key protocols that we will review right now.
- **T** A protocol is a way of doing something or a procedure.
- T In order to have discussions with multiple students we will use On your feet/ Get ready to meet/ Go and Greet.
- T When I say: On your feet/ Get ready to meet/ Go and Greet you will stand up, put your hand up and find someone else who has their hand up.
- *T* Once someone has their hand down that means they already have a partner.

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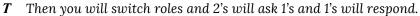
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- *T* You may only work with each partner once!
- T Once everyone is paired up and all hands are down, I will either ask you a question or give you a direction.
- T Let's try this now, please be sure to take your pencil and copy of the text with you.
- T Ok, On your feet/ Get ready to meet/ Go and Greet remember, hand up and find another partner with their hand up. Wait until all students have a partner and then pose the question.

On your feet/ Get ready to meet/ Go and Greet (with their pencil and text)

Ask, Answer, and Justify

- T Now that you have a partner the next thing we will do is for sharing our answers.
- T We will be using Ask, Answer, and Justify protocol.
- *T* For this you will each pick the number 1 or 2.
- T 1's will ask the question first and 2's will respond, making sure that they justify their answer using information from the text.



T Let's try this with some questions.

<u>Partner discussion:</u> Monitor to ensure that 1's are asking 2's and 2's are answering and then they switch and 2's ask 1's and 1's answer.

Partner discussion:

 What is the main idea of paragraph 1? Think about a few main points that were covered so far, perhaps something you underlined in paragraph 1.

Give time to complete this task. Monitor students and provide assistance as needed.

- T After partner discussions, I will bring the class back together to <u>Share out and check for</u> <u>understanding.</u>
- T I will call on students or partners to share their ideas and answers with the class.

Note:

Throughout the lesson place Questions/Sentence Frames/Protocols on the document camera if available or recreate on a visual display (dry erase board or poster paper).

Ask, Answer, and Justify

respond

respond

 Put students in pairs: have them assign themselves a number 1 or 2

• 1's will ask the question first and 2's will

• Then 2's will ask the question and 1's will

Roles for number assignments:

- Share out and check for understanding
- Follow the protocol for Ask and Justify
 Ask students to share their response to the
- Verify that response or conclusion is correct
- If needed, provide clarification

Share out and check for understanding

T Who would like to share the main points they discussed with their partner? Call on 2-3 volunteers to share.

Verify responses and provide clarification if needed. Possible main points from paragraph 1 may include: polar bears are large, they live in the Arctic, the cold climate fits them well, their body helps them live in this type of climate.

- T You will now work in partners to talk about other details you may have underlined.
- Time to find a new partner, On your feet/ Get ready to meet/ Go and Greet remember, hand up and find another partner with their hand up. Wait until all students have a partner and then pose the questions.

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On your feet/ Get ready to meet/ Go and Greet (with their pencil and text) then...

Ask, Answer, and Justify

Partner discussion:

- What were some of the unfamiliar words you circled in the text?
- What do you think these words could possibly mean based on the context or words/phrases/sentences around these words?

Give time to complete this task. Monitor students and provide assistance as needed.

Share out and check for understanding

- T Who would like to share the unfamiliar words they discussed with their partner?
- T Please make sure to explain what you think the word means using context clues or the words/phrases/sentences around that word. Use equity sticks, if available, to call on 3 students to share what they think these words mean based on other words in the sentence. Possible answers: uniquely = only one of its kind, absorbs = soaks up, insulates = protects, repellant = keeps it away, thrive = succeed, distribute = divide, traction = grip, enable = allow
- ${\it T}$ Raise your hand if you circled the word camouflage in paragraph 3. Pause while students raise their hand.
- T What does the word camouflage mean? What clue in the text helped you figure that out? Call on a volunteer to provide the answer. Student should mention the clue "blend in".

Verify responses, and provide clarification if needed. Project a few vocabulary words using a document camera, or write them on the whiteboard.

Read paragraphs 2, 3, and 4 of text aloud to students. Then stop for partner discussion.

- T You will now work in partners to talk about other details you may have underlined.
- Time to find a new partner, On your feet/ Get ready to meet/ Go and Greet remember, hand up and find another partner with their hand up. Wait until all students have a partner and then pose the questions.

On your feet/ Get ready to meet/ Go and Greet (with their pencil and text) then...

Ask, Answer, and Justify

Partner discussion:

- What details did you underline that really stood out to you? Why?
- Why do you think the author chose these particular details to include?
- How does a polar bear's ability to camouflage most likely help it survive?

Give time to complete this task, Monitor students and provide assistance as needed.

Share out and check for understanding



- $m{T}$ Please raise your hand if you and your partner underlined some of the same details.
- T Would anyone like to share a few details that were discussed while working in partners? Use equity sticks, if available, to call on 3 students to share what they discussed.
- T And what do you think about a polar bear's ability to camouflage and how that helps it survive? Call on 1-2 students to share. Possible answer: Since they blend in with their environment, they are not visible when they hunt.

Verify responses, and provide clarification if needed.

Read paragraph 5 of text aloud to students. Then stop for discussion.

- *T* Let's take a few minutes to discuss some text features together.
- T What is the genre of this text? And what genre characteristics do you find? Call on 2-3 students to share and provide clarification as necessary. Possible answers: scientific (it is about an animal and its environment), nonfiction (it is true), informational (teaching us something by providing a lot of information)
- T Why do you think the author wrote this? Call on a few volunteers to share. Possible answer: to teach us about how a polar bear's body helps it survive in its environment

Assessment Component

Ask students to revisit their KWL chart and prepare to complete the last column. Either project your model on a document camera or write any necessary notes on the whiteboard.

- *T* Now we will revisit your KWL chart.
- T Please make sure you have your paper in front of you and listen carefully to what I would like you to do.
- T Take a look at what you wrote in columns 1 and 2 on your chart.
- *T* Now think about everything we discussed regarding a polar bear's body.
- *T* I want you to think about what you have learned about a polar bear's body.
- T Don't think about your partner discussions, but specifically about what you learned.
- *T* Please try to come up with at least 3 things that you have learned.
- *T* You are going to write them in the last column of your chart.
- T Just like with columns 1 and 2, you can use bullets or numbers.
- *T* Please take a few minutes to complete your KWL chart.

Provide a few minutes for students to complete their chart. Remember to walk around to make sure they are on task. Then collect their charts for the teacher to assess student understanding.



Now is a great time to take a break and get students re-energized. See our list of engaging movement and brain break ideas to get your students moving and ready to refocus! (see page 13)

Classifying

- *T* Today we will be classifying the three main parts of a polar bear's body.
- T Who can tell me what classify means? Call on several students to share definitions. Possible Answers: organize, group, list, categorize
- T We will be completing a graphic organizer to collect our information. Show graphic organizer to students.
- *T* Please write your name and date in the top right hand corner of your paper.
- T On your paper please title it with: "A Polar Bear's Body Classifying". Model this so students can copy your example.

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- T Then we are going to make 1 box.
- T That will be your topic.
- T Please write "a polar bear's body" in the topic box. Continue to model for students to copy.
- T Next, we will draw 3 boxes that will go under the topic box.
- *T* These boxes will be for your different categories and details.
- **T** You will need to draw lines to separate your category from your details in each of the boxes. Show graphic organizer to students again and continue to model for them to copy.
- *T* I will provide you with the 3 categories and then you will come up with the details for each category. See note below for another option.
- **T** Please copy the following categories on your graphic organizer, and be sure to write one category in each box.
- T Use a different colored pencil for each category. Show graphic organizer to students again. Have them copy the following categories: body, fur, paws

Provide time and ensure that students have correctly replicated the "Thinking Design" graphic organizer.

Note:

You can have students come up with the categories on their own. Ask what they think the 3 main categories for the text should be and then confirm answers. After discussion, be sure everyone records the same 3 categories: body, fur, and paws.

Classifying "Thinking Design" (Graphic Organizer)

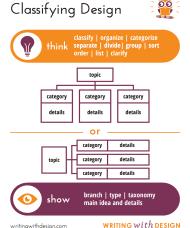
- *T* You will need to come up with at least 3 details for each category.

 Differentiation ideas in box on right.
- *T* You can use bullets or numbers to organize your details.
- **T** You can also use the text to remind you of some of the details, if necessary.
- T Remember to write your details under the appropriate category.
- $m{T}$ Let's do the first one together to help you get started.
- T Please take a look at your text if you need to and think about what we could write as a detail for our first category "body".
- *T* I would suggest looking at paragraph two since that paragraph focuses on the category for body.
- T Go ahead and reread paragraph two and be prepared to share your thoughts. Provide a few minutes for students to come up with the first detail.

 Then, call on 2-3 students to share their ideas. Possible Answers: designed to help it stay warm, black skin absorbs light from the sun, blubber traps the heat, blubber insulates the polar bear.
- T Now you will come up with your own details for the rest of this box.
- *T* Remember you need at least 3 details for each category.
- T Therefore, you will need at least 2 more details for "body".
- T After you complete the first category, I would like you to find at least 3 details for "fur" on your own.
- *T* Please raise your hand if you need any help.

Provide time for students to complete the first two categories of their graphic organizer.

T Now that you have completed the first two categories, you are going to share your details with a partner.



Differentiation:

Struggling Students:
Suggest that they use the article to help them come up with their details.
Challenge: See if students can find even more details to add to their graphic organizer and not use the text.



- *T* With your partner one of you will be a 1 and the other will be a 2.
- T 1's will share first and 2's will listen and check the details on their own paper, making any necessary changes.
- Then 2's will share their ideas and 1's will listen and check their details, also making any necessary changes.
- *T* Don't worry about the order of the details.
- They do not need to be in any particular order.
- T Now to have a discussion with a new partner, we will use On your feet/ Get ready to meet/ Go and Greet.
- T When I say: On your feet/ Get ready to meet/ Go and Greet you will stand up, put your hand up and find someone else who has their hand up.
- Make sure this is a new partner.
- *T* Once someone has their hand down that means they already have a partner.
- *T* Once everyone is paired up and all hands are down, I will give you a direction.
- T After you complete that direction with your partner, I will bring the class back together to Share out and check for understanding.
- At that point I will call on students or partners to share their ideas and answers with the class.



On your feet/ Get ready to meet/ Go and Greet (should take less than one minute)

- Students stand up and put their hand up in the air
- Students find another student that has their hand up to have a "new" partner (and get them moving around)
- Once they are with their new partner, they put their hands down and face the teacher



Share out and check for understanding

- Follow the protocol for Ask and Justify
- Ask students to share their response to the question
- Verifu that response or conclusion is correct
- If needed, provide clarification

On your feet/ Get ready to meet/ Go and Greet (with their pencil and text)

- T Ok, On your feet/ Get ready to meet/ Go and Greet remember, hand up and find another partner with their hand up. Wait until all students have a partner and then give directions.
- T With your new partner, I would like you to complete the last category "paws" on your graphic organizer.
- **T** Remember, you need at least 3 details.
- Work together to reread the paragraph that talks about a polar bear's paws to see what the most important details are, and then write them down on your own graphic organizer.

Give time to complete this task. Monitor students and provide assistance as needed.

- T Eyes on me in 5...4...3...2...1...0. Thank you!
- T Please take a moment to wrap up your work together and finish writing your last few words.
- T Hopefully you had the chance to complete your graphic organizer.
- T Let's take a few minutes to review as a class.

Share out and check for understanding

T Who would like to share the details that were discussed with their partner? Call on 2-3 volunteers to share.

Verify responses and provide clarification if needed. These details should come from the fourth paragraph. Possible answers: a polar bear's paws are big and flat, they help distribute a polar bear's weight, they are webbed, they act as paddles which helps them swim in the cold waters, the pads on the bottom help them from slipping



Ask students to respond to the following question and record their answer on the bottom of their graphic organizer.

- **T** Please respond to the following question by recording your answer on the bottom of your graphic organizer.
- T In your own words, describe how a polar bear's paws are specially designed for life in the Arctic. Project the question on a document camera or write it on a whiteboard for students to see.
- T I would like you to answer this question independently without using your text.
- T Your response should be about 2-3 sentences.
- T Please write in complete sentences.
- **T** Do not use bullets for this part.

Collect their classifying graphic organizer as an assessment piece for the teacher.



Now is a great time to take a break and get students re-energized. See our list of engaging movement and brain break ideas to get your students moving and ready to refocus! (see page 13)



A Polar Bear's Body

by Jennifer Kaul

Polar bears are large mammals that live near sea ice in the Arctic. Since the Arctic has such an extreme climate, polar bears are uniquely suited for the cold. Their body, fur, and paws help them survive in their environment.

A polar bear's body is designed to help it stay warm. Its black skin absorbs light from the sun, and a thick layer of fat called blubber traps the heat from this light. The blubber also insulates the polar bear and keeps its heat from escaping when it is in the water and on the ice.

The fur of a polar bear serves a similar purpose. Thicker than the fur of other bear species, it holds heat in and is water repellant. A polar bear's fur covers most of its body, including its feet. In addition to keeping polar bears safe from the cold, it reflects light from the sun. This makes polar bears appear as white as snow, allowing them to camouflage, or blend in, with their environment when they hunt.

Like its body and fur, a polar bear's paws are made to help it thrive in its environment. Big and flat, they help evenly distribute a polar bear's weight, decreasing its chances of falling through the ice. A polar bear's paws are also webbed. They act as paddles to help polar bears swim in the cold waters of the Arctic. Pads on the bottom of their paws give them traction so they don't slip.

A polar bear's body, fur, and paws enable it to live in its Arctic home. These physical features keep it warm and help it stay safe on and around the ice.



Name:	Date:		
Polar Bears - Classifying			
Classifying Design			





Ask, Answer, and Justify

- Put students in pairs: have them assign themselves a number 1 or 2
- Roles for number assignments:
 - 1's will ask the question first and 2's will respond
 - Then 2's will ask the question and 1's will respond
 - The next time 2's ask the question first

On your feet/ Get ready to meet/ Go and Greet (should take less than one minute)

- Students stand up and put their hand up in the air
- Students find another student that has their hand up to have a "new" partner (and get them moving around)
- Once they are with their new partner, they put their hands down and face the teacher

Give one & Get one

- Students share information in Ask & Justify
- Each student in the pair writes down the information shared by their partner
- If the information is already written, a check is put by the information

Back to Back and Face to Face

- When in pairs, direct students to stand back to back
- Ask the students to consider the question
- Give students at least a minute to consider their response
- Have them turn face to face
- Follow the protocol for Ask and Justify

Share out and check for understanding

- Follow the protocol for Ask and Justify
- Ask students to share their response to the question
- Verify that response or conclusion is correct
- If needed, provide clarification

(Used throughout lesson - be familiar with each protocol.)

Note: Place Protocols under a document camera (if available) as necessary throughout the lessons



Make sure to "Break Up Your Day!"

These can be used in the middle of a lesson or at the end of your lesson.

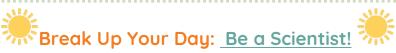
Here are a few engaging movement and brain break ideas to get your students moving and ready to refocus!

Break Up Your Day: Thumbs Up!

- Student is called on (use name cards or equity cards if available) to state a quality they see in themselves (kindness, honesty, hard work, humor).
- Other students signify whether they see that quality in themselves.
- Tally their responses.
- The quality with the most votes or Thumbs Up is the theme for the classroom!



- Students states three objects in the classroom.
- Their shoulder buddy tries to discover what these three things might have in common (compare).
- Shoulder buddy then finds three objects in the classroom and first buddy discoveries comparisons.
- Have several teams share their commonalities.



- A scientist separates fact from fiction or fact from opinion.
- Listen to these 3 statements: #1Today is a school day. #2 It is a good day to be a scientist. #3 We live on the planet Earth.
- Students show teacher which statement is an opinion (answer: #2).
- Now, turn to your buddy and create 3 facts or opinions. See if your buddy can be a scientist!
- Monitor student statements.
- Round 2 of "Be a Scientist" can include facts or opinions from the texts.