

Teacher Guide for ASK, *Why is Everyone Worried About Global Warming?*

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Scoops (pages 2-3)

Clam with a Past

- How can a scientist know the age of a clam?
- What is the importance of Ming?

Yo Ho Wow

- Who was Captain Kidd?
- Why did he leave his ship?
- How will scientists know that it was his ship?

Jumpin' Jerboas!

- What is a jerboa?
- Where do they live?
- Why is there a concern about them?

Why Is Everyone Worried about Global Warming? (pages 6-13)

The following ideas and questions may help with the content of this article. Note a pre-reading strategy listed before reading the section Who Can Survive.

- What are some of the effects of global warming?
- Why are we worried about global warming?
- Why are the Adelie penguins endangered?
- Describe the changes that are taking place in the Arctic due to global warming.
- Describe how polar bears have adapted to the cold weather.
- Explain why they are not getting enough food.
- Using your own words, describe the chain reaction shown at the bottom of pages 8-9.
- Explain how melting ice affects the ocean currents.
- Make a list of problems caused by rising sea levels.
- Explain the weather surprises.
- What does "adaptation" mean?
- Name reasons why humans are affecting climate change.
- **Before reading** the section entitled "Who Can Survive", ask the students to predict which type of creatures might be able to change and adapt to new climates.
- Besides the changes already taking place, what else could humans do to help slow down climate change?
- Creative Work:
 1. Prepare an ad campaign to inform the public about global warming. Include the information provided in this article for your ad.
 2. Design a news broadcast to educate the public. Include pictures as well as a verbal presentation.

Putting the Puzzle Together (pages 14-15)

Research Project:

You might ask the students to complete a research project on **Global Warming**. The topic could be very open ended as the title suggests, or you could ask the students to do research about anyone of the 12 concepts warning about the danger featured on these two pages.

Climate Clues (pages 16-21)

Use these questions to guide the reading of this article:

- How do scientists measure temperature today?
- List the information that can be learned from studying tree rings.
- Describe how they obtain tree rings.
- Explain which is more valuable to scientists – a live or a dead tree.
- What information can ice sheets give to scientists?
- How do scientists obtain ice cores?
- Describe what they learn from the ice cores.
- When pollen is alive or dead, why does it reveal important information to scientists?
- How do scientists use dead pollen?

Diving to Rescue Coral Reefs (pages 22-26)

Use any of the ideas listed below to help focus on the information found in this article.

- Explain the important work that is being done by the Halls.
- Describe the development of a coral reef.
- Explain the partnership between the algae and the coral reef.
- Outline what may be killing the coral.
- List the reasons why coral reefs help humans.
- How do humans harm coral reefs?
- What steps are being taken to protect reefs?
- Creative Work:
 1. Design posters to alert people about the danger to coral reefs.
 2. Create a news report to inform people about what is happening to the reefs.
 3. Write letters to the government asking what is being done to save the reefs.
 4. Prepare a proposal of your own ideas telling about how you think the reefs could be saved.
- Research Work:

The students might enjoy researching about the dangers to coral reefs. This could be done in conjunction with the previous creative work or as an entity unto itself.

Training Your Human (page 27)

- This article has a different focus. What does this statement mean?
- Creative Work:

Choose another creature e.g. zoo animals, birds, wildlife, etc. Use the concept from this article and create a similar passage giving the creature's perspective.

Ask Jimmy the Bug? (page 32)

- What organs are included in your digestive tract?
- What is **peristalsis**?
- How do two centers in your brain help you with digestion?
- Will your stomach explode if you eat too much?