

Teacher Guide for ASK

May/June 2014: Stuck on You

This guide was prepared by Betty Lou Askin, an educator who lives in Toronto, Ontario.

Objectives:

- To learn about the interdependent relations between various animals and other creatures.
- To find out about a famous person's interest in nature especially fungus and lichen.
- To learn about the importance of microbes in the human body.

Pre-reading:

- I. Let the students predict what they think might be included in this issue of ASK based on the title.
- II. Ask them what they think is happening on the cover.
- III. View the Contents pages and discuss the illustrations and article titles.
- IV. Ask the students to prepare a **KWL Chart**- What I Know, What I Want to Know and What I Learned. Start by recording the students' responses for the first two columns of the chart. Add information to the chart after reading each article.

Scoops

Mystery Mounds

- What is a mima mound?
- Where are they found?
- Explain how they may be created.

Goats Go For It!

- What is an ibex?
- Why do they climb the Cingino Dam?
- Explain how they are able to climb a near vertical wall?

Lights, Camera, Earthquake?

- Explain what the scientists found out about the lights.
- Tell why this information might be important in the future.

Get Out Your Red Pencil

- What is "Frontiers for Young Minds"?
- What is a scientist journal?
- Describe the purpose of this new online science journal.
- Ask the students to look for more science "scoops" when they read the media or watch television news/shows. Create a bulletin board to post their findings.

Nestor's Dock

- Why do you think that Phil was planning on cheating?
- Describe the skills that Nestor exhibited.
- How were they saved?

Living Together Totally

Questions to use with this article:

- Describe the relationship between the sunfish and a gull.

- What is **symbiosis**?
- What is a **symbiont**?
- What is **commensalism**?
- How do remoras hitch a ride?
- Tell how large animals help the cattle egrets.
- Why do cormorants get easy food?
- Why are parasites unwanted guests?
- Why is pest-eating a popular form of symbiosis?
- What is **mutualism**?
- Explain why fungi are fun guys to have around.
- Tell about the Portuguese man-of-war.
- Describe the relationship between coral and algae.
- Writing: Choose one of the symbiotic relationships in this article and use your own words to write a paragraph about this interaction.
- Creative Work: Ask the students to create a cartoon with dialogue between a host and a symbiont. This could be serious or humorous.

Ask Polly Proper

- Let the students work with a reading buddy. Ask them to take turns reading this article.
- As a class group discuss the information.

Beatrix Looks at Lichen

Questions to consider as oral discussion or follow-up seat work:

- Explain why art was important to Beatrix.
- Why did John Millais complement Beatrix?
- Why do you think that Beatrix was interested in nature?
- Why did fungi become important to Beatrix?
- Tell why Charles McIntosh was important to Beatrix.
- How do you know that fungi became a full time interest to BEATRIX?
- Do you think that Beatrix kept a science journal? Explain your answer.
- Describe how fungi grow.
- Why was Beatrix ahead of her time with regards to lichen?
- How do fungi and algae get together to form lichen?
- Describe the partnership between fungi and algae.
- Describe the reasons why Beatrix is famous.
- Writing: Create a science journal for Beatrix. Describe her daily work with nature.

Meet Your Mighty Microbes

Vocabulary: microbe, bacteria, habitat, organisms, microbiome, immune system, antibacterial, intestine, colon

Questions to assist with discussion:

- What are **microbes**?
- What is a **microbiome**?
- Describe the work of a microbiome.
- What are the habitats in you body?
- What is you largest organ?
- Tell what lives in your skin.
- Describe how microbes help your skin.
- Explain why you should not use antibacterial soap.

- Describe how microbes work in your mouth.
- Why is the intestine (the colon) the center of your microbiome operation?
- Explain the jobs of these microbes.
- Explain the radical new strategy that some doctors are trying?

You Are Part of the Art

An idea to use with this article:

- Tell how you view art in a museum or n art gallery.
- Describe in a paragraph using your own words:
Luminous Flux
Impression
Pulse Park
- Provide your own impression of this new interactive form of art.

Light Me Up

- Describe the daily routine of the Hawaiian bobtail squid.
- Explain the partnership between the squid and the bacteria.

Art Lives

- Follow the instructions on page 31.
- Share your work with your classmates. If possible, display your creations on a bulletin board.

Jimmy the Bug

- Explain how a lizard's tail can protect it.
- Describe the steps that happen to grow a new tail for a lizard.
- What other animals reproduce lost body parts?

Marvin and Friends

- Why did Plush think that she was being helpful?
- Who was pleased to defend himself?

Culminating Activities

- Complete the **KWL Chart** if it was used during the reading of this magazine. The final section of the chart could be completed now if not done after each article.
- Choose 5 things from this magazine that you learned about. Pretend that you are going to share this new information with someone who has not read this issue of the magazine. Using you own words, write a short paragraph about each of your chosen topics using information found in the articles.

Other Activities

1. The students might enjoy doing some further research about the topics in this magazine.
2. There are some excellent and amusing illustrations in this magazine. The students might like to choose an article and create their own drawings. Or, they might enjoy making their own cartoon about one of the topics including captions or verbal comments.

