

Teacher's Guide for Ask

February 2015

At the Water's Edge

This guide was prepared by Betty Lou Askin, a retired educator who lives in Toronto, Ontario. She has published science and social studies teacher guides for a major publisher and has also given workshops for teachers and students in these same subjects.

Objectives:

1. To learn about the creatures who make their home in and around the water's edge.
2. To learn how these creatures adapt to the changing seasons and climate change.
3. To appreciate how many different creatures can share a living space.

Pre-reading:

- A. Let the students project what they think might be included in this issue of **ASK** based on the title.
- B. Ask them what they think is happening on the cover.
- C. View the Contents pages and discuss the illustrations and the article titles.
- D. 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:

The Secret of the Sliding Stones

- Tell how scientists prepared to test this mystery.
- Explain the mystery of the sliding stones.

Lost Cities Found

- What are some of the features of a Mayan ancient city?
- Describe the new features that scientists are going to explore.

Roaming Robot

- Why did scientists build Hitchbot?
- Tell about Hitchbot's adventure.
- What do you think will be the future for Hitchbot or similar robots?

Worlds Biggest Dino Family Gets Bigger

- Explain why it is hard to find complete huge dinosaur skeletons?
- Provide suggestions for the questions that the scientists are asking.

Ask the students to look for more "scoops" while they read media or watch television news/shows. Create a bulletin board to post their findings.

Nestor's Dock

- Why was Phil very excited?
- How did he plan to protect his findings?
- What happened to his findings that he did not expect?
- What did Phil expect to discover?
- Why did this cartoon end in a humorous way?

Between the Tides

Geography Connection:

- Use a Map of Mexico and the Sea of Cortez or a Map of North America to establish location.

Questions to consider:

1. Tell why the shore changes during the day.
2. Explain the cause of tide change.
3. What are tide pools?
4. How does a turnstone seek its food?
5. Make a list of the creatures that live in a tide pool.
6. Describe a sun star.
7. Explain why a tide pool can be dangerous to sea creatures.
8. Describe how a Sonora clingfish can protect itself.
9. Describe who the "lunch crowd" is in a tide pool.
10. Why are Mexican fireworms feared?
11. Tell why tide pools are nurseries.
12. Describe a sea urchin.
13. Explain why high tide changes a tide pool.

Creative Work:

- Create a daily diary for a shore crab.

Beachcomber's Guide

Suggestions for reading this article:

- There are 22 pieces of information in this article. Divide the class into groups that would suit these 22 bits of information. Assign one or more section to each group.
- The groups should read their data and make Quick Notes about the information.
- Each groups presents their data to the rest of the class using their notes.

Sticking Around

Let the students read this article with a reading buddy. Hold a discussion about the information.

Ask the students to complete the following questions:

1. Describe how a limpet takes care of itself.
2. How does a mussel move?
3. How does it anchor itself?
4. Explain how barnacles live and spend their days.
5. Tell how the glue of mussels and barnacles has proven helpful to scientists.
6. Explain why the glue of these creatures is a problem for humans.

The Sea, the Storm and the Mangrove Tangle

Suggestions for reading this article:

- Use the Read-Aloud Method. Let the students take turns reading the information on pages 18-21. Read through once.
- On the second reading, stop after each section to discuss the information that is provided.

Questions to consider:

1. What is a mangrove?
2. What are propagules?
3. Make a list of the creatures that make a home in the mangrove roots.
4. What creatures enjoy the leaves and branches of a mangrove?
5. Which creatures use the mangrove as a nursery?

Persuasive writing:

- Write a persuasive paragraph that explains why mangroves should be preserved. Remember to use a strong opening sentence and a good concluding statement.

Are You an Amphibian?

- Read this aloud together. Ask the students to complete the quiz.

Life in a Vernal Pool

- Explain what a vernal pool is to the students. Discuss how this pool may change over the seasons. Divide the class into four groups. Assign one of the four seasons to each group. Ask them to read their section and to prepare a report that they will then present to their classmates.
- This article could be read aloud at the conclusion of the presentations to solidify the information and provide a succinct conclusion.

Water Wings

- Follow the instructions on page 31. Let the students share their work with their classmates.
- Make a bulletin board display of their pictures.

Jimmy the Bug

- In a paragraph and using your own words, describe why feet smell. Remember to use a strong opening and closing sentence.

Magic Squares

- Try your hand at making similar math squares.

Marvin and Friends

- Describe the landscape.
- Why does the dining room seat so many people?
- Explain why there is free house cleaning.

Culminating Activities:

1. Complete the **KWL Chart** if it was used during the reading of the magazine. The final section of the chart could be completed now if not done after each article.
2. Choose five things from this magazine that you have learned about. Pretend that you are going to share that knowledge with someone who has not read this issue of the magazine. Write a paragraph about each of your chosen topics using the information found in the articles.

Other Activities:

1. Writers and illustrators work together. A writer uses words and an illustrator uses pictures and diagrams, etc. Choose one of the articles in this magazine and describe how the illustrator uses the pictures instead of words to convey information, mood or feelings to the reader. Explain your choice and the information you are given.
2. Depending on your curriculum, the students might enjoy doing some further research about the topics in this magazine.
3. Art Connection: There are some great illustrations of water life creatures. The students might like to create some of their own art work based on the topics presented.
4. Using the information you learned about the creatures that live at the water's edge, choose one that you would like to be. Describe yourself and your habitat. Write about your daily life.