# **Comparing Shells**

Asking students to sort shells into categories of their own choosing gives them a chance to look at the similarities and differences among seashells. This experience can help students better connect to the text because they will have seen some of the properties of the shells discussed in the text.

#### Procedure

Before reading, give each pair of students a handful of various shells. Ask them to look at the shells and create two groups based on one property. For example, they could group them as spiral and no spiral, grooves and no grooves, white and not white. Encourage students to use only one property to sort. When pairs are done sorting, ask them to look at another pair's groups and guess how they were sorted.

#### ELA Common Core Connections

Writing: Text Types and Purposes 3: W.3.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

4: W.4.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

Next ask students if they see any shells in their sets that they think are the same "kind" or species. Have them sort those shells into groups of the same "kind." (Shells of the same species are the same basic

shapes, but can have differences in the colors, texture, and size.) Then ask students to compare the individual shells in each group and ask them why they think there are differences in color, size, thickness, and so forth.

Tell students you have a book to read that can help them understand why seashells have certain characteristics and why shells of the same "kind" still have differences. Be sure to stop at the following pages and discuss these explanations:

- Pages 14–15: Differences in size could be due to age of the mollusk.
- Page 23: Cracks or chips can be the result of a battle. Small holes can be made by animals trying to eat the mollusk. Differences in color can be due to what was in the water where the animal lived. Some shells have had other animals living on them.

After reading, ask students to sort their sets of shells into the two

### Framework for K-12 Science Education Connections

Life Science 3.A: Inheritance of Traits **By the end of grade 2.** Organisms have characteristics that can be similar or different. Young animals are very much, but not exactly, like their parents and also resemble other animals of the same kind. Plants also are very much, but not exactly, like their parents and resemble other plants of the same kind.

#### By the end of grade 5. Many

characteristics of organisms are inherited from their parents. Other characteristics result from individuals' interactions with the environment, which can range from diet to learning. Many characteristics involve both inheritance and environment.

main groups mentioned in the book: bivalves and gastropods. As you check with pairs to see if they sorted correctly, ask them, "What is the biggest difference between bivalves and gastropods?" (Bivalves have two shells connected at a hinge and gastropods have one shell.)

Next have students create Venn diagrams titled "Comparing Bivalves and Gastropods." Ask students to use their observations and the text to compare and contrast these two kinds of seashells.

### Bivalves Have two shells connected at a hinge Mollusk closes the two shells to protect itself Gastropods Have one shell and no hinge Mollusks retreats inside to protect itself

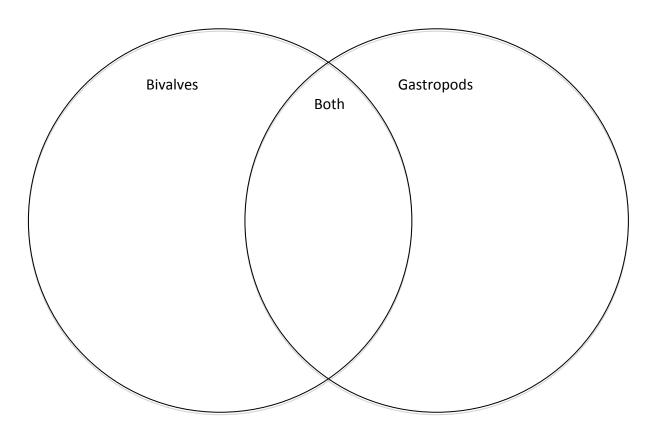
#### **Comparing Bivalves and Gastropods**

Then, have students answer the question below the Venn diagram. Students should explain the following:

- Seashells are made by animals called mollusks.
- Bivalve shells are made of two pieces connected at a hinge. So, if you find a shell with a hinge, it must be a bivalve.
- Gastropods are one piece and usually have a spiral on the end.

Name\_\_\_\_\_

## **Comparing Bivalves and Gastropods**



Pretend you have a friend that is going to be collecting seashells at the beach soon. Write a paragraph below explaining to your friend where seashells come from and how to tell the difference between a bivalve shell and a gastropod shell. Use the information in your Venn diagram to help you.