# What's In a Science Notebook?

**Science notebook references are included throughout the Teacher's Edition. A science notebook is a place to record observational data and inferences. Students can record their observational data and inferences in a variety of ways.**

## STUDENT DRAWINGS

- Have students draw pictures to illustrate the Nature of Science (science is based on observations and inferences) and their understanding of science concepts.

## TABLES, CHARTS, AND GRAPHS

- Draw tables, charts, and graphs to record information or data.

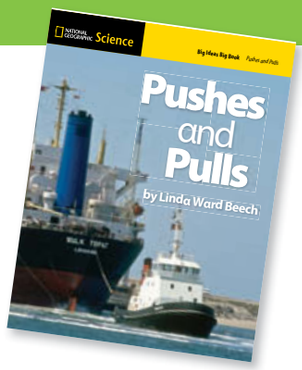
## NOTES

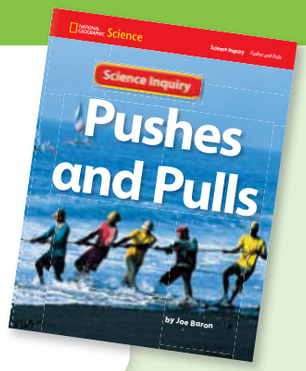
- Encourage students to jot down notes from each lesson in their science notebook. They can include graphic organizers, charts, lists, questions, and sketches. Suggestions for notetaking appear in the Teacher's Edition at point of use.

### Pushes and Pulls on a Playground


| pulls on a playground | pushes on a playground |
|---|---|
| gravity | a girl pushes a ball |
| a boy pulls a wagon | boys and girls push swings |

A girl pushes a ball with a kick. A boy pulls a wagon. The girl on the slide starts at the top and goes to the bottom. Some force (gravity) must be pulling her toward the ground.




## Pushes in Baseball

Swinging a bat is a push. I want to find out if a bat hitting a baseball is a push or a pull.

Why are some hits long? Why are some hits short?

## COLLECTED OBJECTS

- magnet
- fallen leaf
- baseball card
- other

## REFLECTIVE AND ANALYTICAL ENTRIES

- You might want to give students prompts or frames to guide them as they write in their science notebooks. For example:

  *I want to find out* _____.

  *If* _____, *then* _____.

  *What would happen if I change* _____?

  *I think* _____ *because* _____.

  *The most important thing I learned in this chapter was* _____.

  *I was surprised to learn* _____.

## OTHER QUESTIONS STUDENTS HAVE

- Students may have a variety of questions. Have them record questions and help them research the answers.

### Integrated Technology

- **Digital Camera** Suggest that students use digital cameras to take photos. The photos can be included in their science notebook.
- **Computer Presentation** Encourage students to share their ideas. They can share their notebooks with each other, present their ideas to the class, or talk about their ideas in small groups. They can also make computer presentations as appropriate.

## What's In a Science Notebook? continued

### STUDENT REPORTS

- Students can answer one or two reflective questions at the end of each chapter. Or you can assign special projects or reports for them to write in their notebook.

### What I Learned

The most important thing in this chapter is that objects move in different ways. I know that sometimes when I go sledding straight down a steep hill I go too fast. I infer that going in a zigzag motion helps to slow the object down.

art by Braedyn, age 7

Name _____ Date _____

**Chapter 1 Science Vocabulary**

Write the word that completes each sentence.
Use the words in the box.

**direction**
**force**
**motion**
**pull**
**push**

1. A push or a pull is a force.
2. A push can move something away from you.
3. The path an object takes is its direction.
4. A pull can move something toward you.
5. When something is moving, it is in motion.
6. Choose one of the words in the box.
   Draw a picture about the word. Write the word in a sentence.

Students should draw a picture related to one of the vocabulary words and write a sentence using the word.





## SCIENCE ACADEMIC VOCABULARY

- You can have students include the Vocabulary Learning Masters in their science notebook. See page SN11 for other suggestions for using the science notebook with Science Academic Vocabulary.

Name _____ Date _____

**Directed Inquiry**

# Investigate Motion

**Question** How can you make a paper cup move on strings?

**Predict**

How will the cup move?

Predictions may vary. Students may predict that the cup will move back and forth as they move the ends of the string apart and close.

**Record**

Write or draw in the table.

| How I Moved the Ends of the String | How the Cup Moved |
|---|---|
| Apart | Students should observe that the cup moves away from them when they move the ends of the string apart, and the cup moves toward them when they move the ends of the string close. |
| Close | |





## INQUIRY ACTIVITIES

- Use Learning Masters or have students write notes about the activities in their notebook. See pages SN8–SN10 for suggestions for using a science notebook with inquiry activities.