

What Is Science? ▪ *Skills Lab*

Piecing Information Together

Problem

How do the skills of observing and inferring help scientists piece together information?

Skills Focus

observing, inferring, predicting

Materials

paperback book, cut into sections and stapled together

paper

pencil

Procedure

1. Examine the small section of the book your teacher gives you. Use your observation skills to list any facts you can state confidently about the book, including its characters, setting, or events.

2. Based on your observations, what can you infer the book is about? Write one or two sentences describing the book's storyline.

What Is Science? ▪ Skills Lab

3. Get together with a partner and share your book sections, observations, inferences, and story descriptions.
4. Together, write a new one- or two-sentence story description based on your shared observations and information.

5. Get together with another pair of students. Repeat Steps 3 and 4.

6. After you have written your description of the story as a group of four, look back over all your story descriptions. Note how they have changed over time.

Analyze and Conclude

1. **Observing** Look over the list of observations you made in Step 1. Were any of the observations really inferences? If so, explain why.

What Is Science? ▪ *Skills Lab*

Piecing Information Together *(continued)*

2. **Inferring** How confident did you feel about the inference you made about the storyline in Step 2? How did your confidence level change when your observations included additional sections of the book? Explain your reasoning.

3. **Predicting** How do you think your level of confidence would change if you observed more and more sections of the book? Explain your reasoning.

4. **Communicating** Write a paragraph explaining how this activity resembles the work of scientists. How do the observations and inferences you made relate to those that scientists make? What do your story descriptions represent?

More to Explore

Choose a scientific article from a newspaper or magazine. Read the article and identify three observations and three inferences that the scientists made.