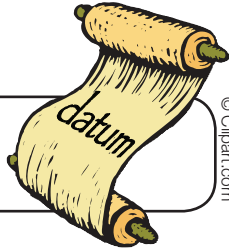


What Is a Data Sheet?

Data are facts you gather as you find out what happens in a science experiment. You don't have to remember all the data. Just use a **data sheet**. You can use numbers, words, or pictures.

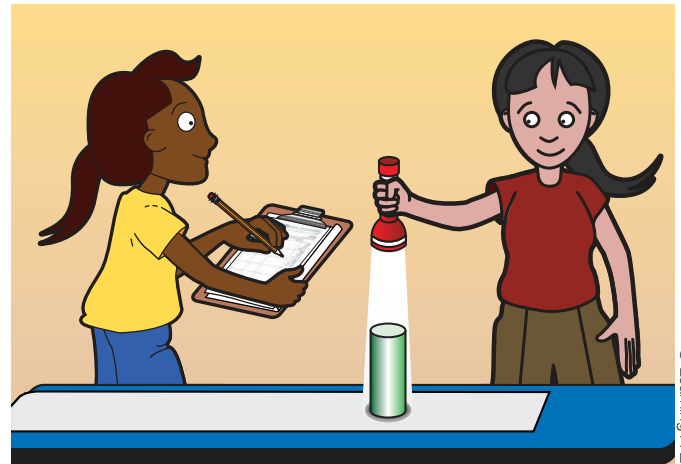
Word Wise

The word *data* is the plural of the Latin word *datum*.



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Data sheets can help you answer a science research question. You may have noticed how shadows change during the day. How does light change the shape and size of a shadow? You could shine a flashlight on an object from different heights and angles to find out.



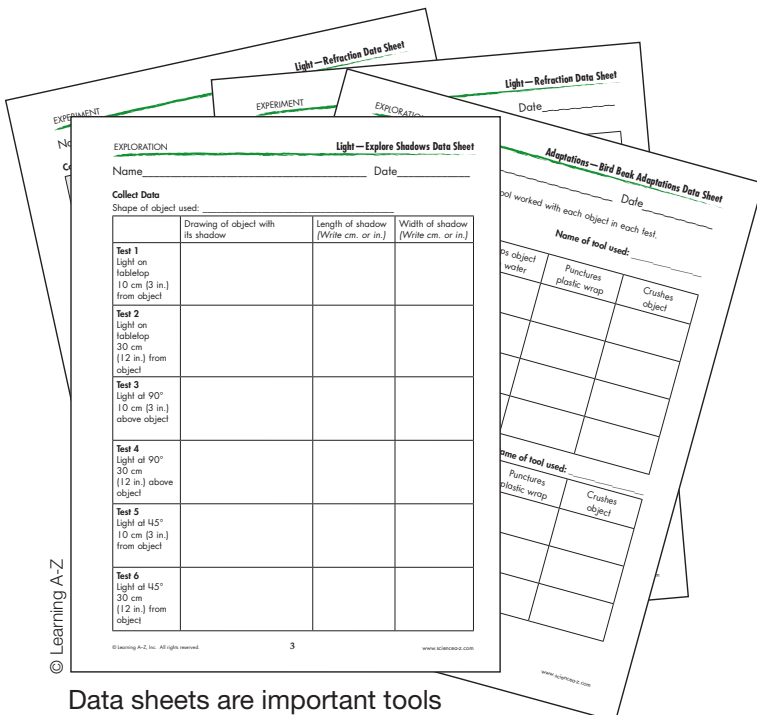
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Data sheets may use tables, charts, graphs, diagrams, and sketches. They make it possible to organize the observations from an experiment. How would you write down your **observations** from the shadows experiment? The data sheet has a table with six tests along the left side. After each experiment, you would draw the shadow and record the shadow's length and width.

Data sheets also help you **analyze** your data. What happens to the shadow when the light is further from the object? What happens to the shadow when the angle of the light is increased? These questions help you interpret your data, draw conclusions, and answer your research question.

✓ Brain Check

- ☐ What does the word *data* mean?
- ☐ How can data be organized on a data sheet?
- ☐ How do data sheets help you analyze data?



Light - Explore Shadows Data Sheet

Name _____ Date _____

Collect Data

Shape of object used: _____

	Drawing of object with its shadow	Length of shadow (Write cm. or in.)	Width of shadow (Write cm. or in.)
Test 1 Light on tabletop 10 cm (3 in.) from object			
Test 2 Light on tabletop 30 cm (12 in.) from object			
Test 3 Light at 90° 10 cm (3 in.) above object			
Test 4 Light at 90° 30 cm (12 in.) above object			
Test 5 Light at 45° 10 cm (3 in.) from object			
Test 6 Light at 45° 30 cm (12 in.) from object			

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Data sheets are important tools for recording data observed in science experiments.