

# Systems

- C-1. A "system" is anything that has parts which work together. A bicycle is a system with lots of parts that work together. Weather is a system - rain, wind, sunshine, and temperature work together. A television is a system that has lots of different parts that work together. What systems do you see in your classroom? What system did you use in your experiment?
- C-2. Point to and describe the parts of the system.
- C-3. Could some parts be taken out of your system? Would your system work the same way? Give it a try.
- C-4. Point to and describe the parts that must be in your system for the system to work.
- C-5. What do you think would happen if different parts were added? Talk about each new part, and how you think the system would be changed. Try it out.

# Constancy and Change

- D-1. What did you see that stayed the same?
- D-2. What did you see that changed? Talk about the changes.
- D-3. What made things change? Why do you think (infer) that?
- D-4. Did the changes happen fast or slow? Explain what you mean by fast or slow.
- D-5. Could you make changes happen faster or slower? How could you do this?

Questions adapted from Unifying Concepts in Science poster for primary grades  
Charles A. Dana Center, University of Texas, Austin

## Properties, Patterns, and Models

- A-1. What properties did you observe using your senses? (seeing, touching, smelling, hearing, and tasting).
- A-2. Did you see anything with a pattern? Did anything happen over and over again?
- A-3. Scientists build models to show how things work or how things are put together. How would you use properties and patterns to build a model? Examples of models you might think about are: a skeleton, a model of building or bridge, or statues of people.
- A-4. If you built a model, how would you use it?
- A-5. Look carefully at the way your model is put together and what it does. How is it like the "real thing"? How is it different from the "real thing"? Why is it different?

## The Nature of Science

- B-1. How do scientists make observations? What are some ways that our senses are important science tools?
- B-2. Why do scientists write down what they do? Why do scientists draw pictures of what they do? Why do scientists tell what happened in an experiment?
- B-3. Why should a scientist do a science experiment more than one time?
- B-4. Sometimes scientists change their minds after an experiment. Why might they do this?
- B-5. Is your experiment like one done by a scientist? Or, is it different from an experiment done by scientists?