# Science and Experiments (Level 1) Assessment Questions

## **Create Your Own Goldberg Machine**

- 1. What is a machine? Give 2 examples of machines.
- 2. Give 2 examples of machines that need force to move from one point to another.
- 3. Design a rube Goldberg machine of your own that performs any simple task. Draw the design on paper.



- 4. Observe the picture given above and answer the following questions:
  - a. Is this a Rube Goldberg machine?
  - b. What does this machine do?

## Sounding It Out

- 1. What are CVC words? Give two examples of CVC words.
- 2. True or false: pitch, loudness, and density are characteristics of sound.
- 3. Define rhythm.
- 4. Use colors to represent a sound pattern with three different sounds.
- 5. Compare a sharp and a muffled sound.
- 6. Write a rhyme in an AA-BB scheme for a four-line poem (e.g. Lucy is my little yellow cat; She loves to sleep on my mat; All day long we run; And play in the sun).
- 7. Define pitch. Give an example of a low pitch sound. Give an example of a high pitch sound.
- 8. Explain how sound travels to your ears.

#### Managing our Need for Speed

- 1. Give one example of each of the following:
  - a. Water vehicles
  - b. Land vehicles
  - c. Air vehicles
- 2. List 1-2 uses of the following:
  - a. Water vehicles
  - b. Land vehicles
  - c. Air vehicles
- 3. Which of the following will move faster? Explain why.
  - a. A car on a rocky road.
  - b. A bicycle on a smooth paved road.
- 4. Why do some objects sink while others float?
- 5. How do boats and smaller water vehicles navigate at night (in the dark)?

#### **Shadow Play**

- 1. List two uses of light.
- 2. Choose the right answer:

A \_\_\_\_\_ (transparent, opaque, shadow) object is an object that I can see through.

- 3. True or false: I cannot see through translucent objects.
- 4. Which of the following is a natural source of light?



- 5. Draw two different sources of light.
- 6. Draw images of sunrise, noon, and sunset.
- 7. List two differences between natural and artificial sources of light.
- 8. How are shadows formed?
  - a. When someone stands in front of a light source with her back to a wall.
  - b. When someone stands behind a light source facing a wall.
- 9. Can we see a shadow in the dark? Why or why not?
- 10. How can we make the size of the shadow of a toy bigger?
- 11. How can we make the size of the shadow of a toy bigger?