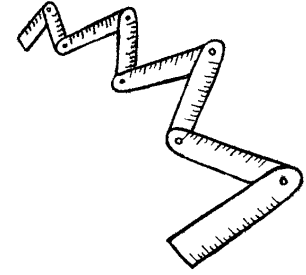


# Balancing Act



## **Standard Addressed**

**Science:** The student uses scientific inquiry to gather information.

## **Objectives**

1. The student will develop an understanding of the concept of balance.
2. The student will determine how weight affects balance.

## **Materials**

1. Empty 1-pound coffee can
2. Yardstick
3. Various sizes of bulldog paper clips
4. Drawing/writing materials

## **Center Preparation**

Turn the coffee can on its side and use masking tape to secure it to a table or desk so that it will not roll.

## **Student Directions**

1. Balance the yardstick on the coffee can as if it were a seesaw. Draw a picture showing the location of the coffee can with the yardstick. Write the number on the yardstick that tells where the coffee can is located. For example, is the coffee can right below the number 15 on the yardstick?
2. Attach one of the paper clips to one end of the yardstick, and then balance it on the coffee can. Now what number is the coffee can below on the yardstick? Draw a second picture including the number where the coffee can is located.
3. Add another paper clip to the same end of the yardstick and find out how this extra weight affects balance. Draw a third picture.
4. Write a brief explanation of your findings.

## ➤ **Tiering the Center**

### ➤ **Older or More Able Students**

#### **Objectives**

1. The student will develop an understanding of the concept of balance.
2. The student will consider multiple variables in an experiment.

#### **Materials**

1. Empty 1-pound coffee can
2. Cans with Various Circumferences (vegetable can, larger coffee can, etc.)
3. Wooden Ruler
4. Thin, flexible ruler or other straight edge

#### **Student Directions**

1. Create your own experiment to find out how weight affects balance using the materials provided in this center. Is it possible to balance the yardstick with varying weights on both ends?
2. Report your findings in writing.
3. What other variables besides weight could you consider in this experiment? Try at least one additional variable and report your findings.
4. Do any of these variables make a difference?

### ➤ **Younger or Less Able Students**

#### **Materials**

1. Same as original center (1-4 page 41)
2. Tape recorder

#### **Student Directions**

1. Balance the yardstick on the coffee can as if it were a seesaw. Draw a picture showing the location of the coffee can with the yardstick.
2. Put one of the paper clips on one end of the yardstick and then balance it on the coffee can. Draw a picture showing what happened.
3. Add another paper clip to the same end of the yardstick. Draw a third picture.
4. Tape record your description of what you did in this center and what happened.