

# Flip A Coin

## Summary

Pairs of students flip coins to determine the characteristics of a fictional person to learn about heredity.

## Time Frame

1 class periods of 45 minutes each

## Group Size

Pairs

## Materials

For Each Pair of Students:

- 2 Coins (heads and tails distinct)

- Art Paper

- Worksheet (attached)

- Crayons or Colored Pencils

## Background for Teachers

All living things inherit a set of characteristics or traits from their parents. Members of any given species transfer traits from one generation to the next. The passing of traits from parent to offspring is called heredity and causes the offspring to resemble the parent.

In this lesson, each student will act as a "parent" and work with another "parent" to create fictional "offspring." Coins are used to determine which characteristic each "parent" will give to the offspring. This activity is similar to (although a very simplistic representation of) the DNA and chromosomes actual parents donate to their offspring.

## Intended Learning Outcomes

- Use data to construct a reasonable conclusion.

- Use classification systems.

- Cite examples of how science affects life.

- Science is a way of knowing that is used by many people not just scientists.

## Instructional Procedures

Explain to students that offspring often resemble their parents. Ask them to think about their physical characteristics. Have a few students share some examples of hair color, eye color, or other characteristics they have in common with their parents. (Note: Be sensitive to the individual needs of adopted children.)

Tell students that today they will be working with a partner to create a fictional character.

Divide students into pairs and give each pair two coins and the Heredity Worksheet attached below.

Each student should flip their coin and then use the worksheet to determine the results.

Once all characteristics of the fictional person have been determined, students should draw and name their person on a piece of art paper.

Have students present their fictional person to the class. Discuss the uniqueness of each creation despite having a small set of characteristics from which to choose.

Make connections between the activity and heredity.

### Assessment Plan

Assess student drawings to determine if they match the selections from the worksheet.

Have students write a summary of how parent characteristics can influence the attributes of their family.

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