Materials Needed
- o 10-25 objects with different attributes (shapes, textures, colors, etc.)

Grade Range
6-8

Topics/Skills
Science: Properties of materials; Observation Skills; Language Arts: Vocabulary; Analogies

Learning Standards
NGSS: Physical Science
CCSS ELA: Speaking & Listening

Duration
15-30 minutes

Prep Time
5-10 minutes

Coming Full Circle
Focus on attributes to make connections

Students practice identifying and describing material properties and use similarities to make connections between random objects.

Activity Challenge
Choose a set of objects and examine their attributes (characteristics). See which objects share similar attributes and arrange them in a circle.

Preparation
1. Gather 10-25 different objects that vary in shape, texture, color, material, and/or other attributes.
2. Put the objects in a pile on a table.

To Do
1. Choose 4-5 different objects from a pile on the table.
2. Observe the attributes of the objects (e.g., flat, bendable, shiny, rough).
3. Find similarities (shared attributes) between the objects.
4. Based on the similarities, arrange the objects in a circle so that each object is "connected" to the objects on either side:
   a. A **craft stick** connects to a **milk cap** because both can float.
   b. The **milk cap** connects to **fabric** because they're both blue.
   c. The **fabric** connects to the **envelope** because they both cut easily with scissors.
   d. The **envelope** connects to the **craft stick** because they both are made from wood products.
5. Verbally describe the connections to another person.

Observations
Draw a labeled sketch of your connection circle, being sure to call out shared attributes between objects. List and look up any unfamiliar terms in order to better describe the similarities between objects.

Extensions
- Add more objects to the attribute analysis for more complex circles.
- Go online and research how specific objects in the circle are manufactured. You may be surprised by what you learn!
- For an added challenge, try to use a connecting attribute only once.