

Classified Information – Part 1: Shapes

3rd Grade

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References:

- This lesson was adapted from the lesson *Animal Classifications* in the Columbus Public Schools Science Curriculum Guide.

Benchmarks:

SL-3: Classify animals according to their characteristics (e.g., body coverings and body structure).

SI-6: Communicate scientific findings to others through a variety of methods (e.g., pictures, written, oral and recorded observations).

Objectives:

Students will learn how and why scientists use classification, particularly in the context of animals, while learning about vertebrates, invertebrates, and their subgroups.

Materials:

- Tape (preferably masking)
- Scissors
- Science journals (1 per student)

Initial Demonstration:

Tell the students about the importance of classification for scientists. Stress its utility for organizing information for ease of study and contrast an example of its use with an example where not using classification has made a scientist's life more difficult

Ask them for example instances of classification use (i.e. animals, plants, stones, foods, etc.) while making a list on the chalkboard that they should copy in their science journals. Guide them in a discussion leading to an appropriate classification strategy for one of the examples. For example, use animals (Level 1: lives on land, lives in water, lives on land and in water; Level 2: has feathers, has fur, has scaly skin, has fins and gills, has no fins, has moist skin, has a hard shell).

Target Observations:

- Various *things*, such as animals, can be classified.

Target Model:

- *Things* should be classified into groups and subgroups to ease the study of *things*.

Procedure:

Before beginning the lesson, prepare a flowchart similar to the one the students will be filling out for shape classifications and hang it in front of the class. Fill the chart with students' responses as they share with you their classification ideas during the discussion.

Ask students to form groups of four to six (optional; for ease of shape distribution only). Pass out one "Shapes for Classification" (printed in color) sheet to each group and one "Shape Classification Worksheet" to each student. They should cut out the shapes. Each student should select a shape as his/her own and tape the shape to him/herself in a visible location. Now, engage them in a discussion regarding a suitable way to classify themselves (with reference to their shapes). Ask them to fill out the top level of the organizational chart and then physically form a single large group. Next, ask for suggestions for the first sub grouping and after agreement, let them fill out the appropriate row in their charts and split into the two groups. Continue the process until the students are split into small groups of *size color shape* (for example, *large red triangle*), discussing what is happening throughout.

Explain that what they have done is what scientists do to classify animals; they take one group with many things in common and break them down into smaller and smaller groups with still more in common.

Target Observations:

- Shapes can be classified by shape, color, and size.

Target Revised Model:

- Similar methods of classification can be used to classify other *things* occurring in science, such as animals.

Summary:

The class should now have a basic understanding of the importance and design of a strategy for classifying shapes based on shape, color, and size. They should be sufficiently prepared, given proper background information, to classify animals in a general manner.