Classifying Kids

Summary

An activity which asks student to classify each other helps students to understand how Utah's plants and animals are classified.

Materials

- Pattern blocks
- Student journals.

Background for Teachers

This activity is meant to get students excited about grouping and classifying. Students need to get up and experience classifying to help them understand better how to use a classification key. This activity can be done with or without prior knowledge of sorting. It would help if students were familiar with the words *classification* and *grouping*.

Intended Learning Outcomes

1. Use science process and thinking skills.
2. Manifest scientific attitudes and interests.

Instructional Procedures

Invitation to Learn

Take all of the students into a gym or a room with lines on the floor. (If neither are available create lines on your floor, use stairs, or find points of reference in your classroom.) Give each student a pattern block (but don't use the rhombus, the most narrow block) and explain that they need to follow your instructions based on what their block looks like. Use the following instructions to sort the students by their blocks.

- If your block is a polygon, move to the first line.
- If your block has at least 4 sides, move to the next line (this should leave those holding triangles standing on the first line).
- If your block has 6 sides, move to the next line (this should group the hexagons together).
- If your block has 4 right angles, move forward 2 lines (this will group the squares).
- If your block has 4 equal sides and 2 acute angles, move forward 3 lines (this will leave the trapezoids alone).

Talk about how everyone moved at first, because they have one thing in common, but then found that they had differences. Discuss how the trapezoids, squares, and parallelograms were alike and different. Make sure to point out how the triangle is similar and different. After discussing, collect the shapes and return to class to begin the lesson. This activity will work with a variety of objects, but you should be able to get into groups in less than 6 steps or it will get too complicated.

Instructional Procedures

- Explain that classifying is a way to organize animals, plants, and objects. It helps to see how things are similar and different.
- Talk about how everyone in the room is similar, yet different and we can put them into groups based on these similarities and differences. Give an example (Jenny and Penny are both girls but one has brown hair and the other blonde, so they could both go in the girl group but they could be separated into hair groups). Then allow students time to point out as many similarities and differences as they can.
- Ask students to talk with their group about how they would group the class. Give them about 2

minutes to talk and then ask them to write their ideas into their journal. Students write the different groups they would use.

Guide the students through grouping the class. Allow students to volunteer the groups they thought of and have students get up and move into these groups. This allows students to see the groups and to clarify their thoughts. Divide the class into 3-5 groups. After finalizing the groups, have the students write these groups into their journal. Students should include the names of the students who fit into each of these groups for reference later.

Model how to write a classification key to describe the student groups. Use poster paper (plain or graph paper). Say each step e.g., 1. if you are a boy go to question 2a, if you are a girl go to question 4a.

After writing the classification key, show students how to use it to find each group.

Extensions

Curriculum Extensions/Adaptations/ Integration

A dichotomous key is easier to use at first. If students have a hard time following your model of a classification key, make a dichotomous key first. Then use the dichotomous key to write your classification key.

Students that understand how to use the classification key can create a new key using the students in the room in different groups. They can present their key to their groups.

Have students pull off a shoe, coat or backpack to use for grouping to repeat the activity if students are still struggling with the concept.

Family Connections

Ask students to group their family the same way they grouped the class.

Have students complete a survey or interview about how people use classification during their everyday lives. Create a bulletin board to show the other ways it is used in real life.

Assessment Plan

Have students copy the classification key into their journal and explain how to use it.

Play guessing games. Use the clues on the classification key to guess different students around the room. Allow students to do both clue giving and guessing.

In math, have students group numbers or objects and write about the groups.

Bibliography

Research Basis

Wolfe, P. (2001). Brain matters: translating research into classroom practice. Association for Supervision and Curriculum Development, Alexandria, VA.

The brain processes abstract information best after experiencing real things first and then symbolic representations. To analyze and compare information, the brain needs to be able to base it on an experience. When learning science, students need to be presented with real-life experiences and meaningful context that build a base for the abstract written problems we usually pose on tests.

Authors

Utah LessonPlans