Squiggy Comes to Kindergarten

Summary

By using manipulatives, students will learn to recognize attributes and sort items according to those attributes.

Materials

Link people manipulatives Small students pictures

- Squiggy sorting cards
- Squiggy attribute chart

Additional Resources

Iggies Come to Kindergarten, Bernard R. Yvon Teacher (1984) 31(5), 36-38

Background for Teachers

This activity is designed to help students recognize a variety of different attributes and then learn how to sort people/objects according to the different attributes.

Intended Learning Outcomes

- 1. Demonstrate a positive learning attitude.
- 2. Develop social skills and ethical responsibility.
- 5. Understand and use basic concepts and skills.

Instructional Procedures

Invitation to Learn

Squiggy was created in a classroom in Brigham City, Utah to help children explore different attributes. Squiggy has many "people" attributes -- arms, legs, eyes, a round squiggly head/body, always some kind of hat, and sometimes a nose, shoes and ears. Let's create what Squiggy can look like. (Model with the class a Squiggy giving the following parameters-one color with black outline, one squiggly head/body, a hat of some kind, 1-4 arms, 1-4 legs, 1-2 eyes, ears or no ears, shoes or no shoes, sometimes a nose and always a smile. Model how to describe a Squiggy. Have students draw their own Squiggy.)

Instructional Procedures

Have students describe their Squiggies with a partner or friends at their table.

Have students bring their Squiggy pictures and gather together.

Choose an attribute for a class Squiggy sort (e.g. body color, # of legs, ears/no ears). Designate a place on the floor for them to stand with their Squiggies according to the chosen attribute you are sorting by.

After doing several sorts, collect their drawings to laminate and place in a center.

Discuss attributes of real people and different ways real people can be sorted.

Do 2-3 student sorts using the attributes the children generate.

Discuss ways to sort people using just their heads.

Distribute people link manipulatives with pictures of students heads attached.

Have them hold their links and do 2-3 link people sorts.

Gather the links to put in a center for sorting and/or graphing.

Extensions

Students will use Squiggy Cards in a center to sort them by attributes.

Play "Student Sort Shuffle" in P.E. by calling out different people attributes and having the students run to the other end of the gym. The students who run first will help the teacher determine attributes of the remaining children.

Family Connections

Send a set of Squiggy Sorting cards home with each student.

Have students sort the members of their families by simple attributes like eye color, hair color, and boys/girls, etc.

Assessment Plan

Observations are made as the students are doing the sorting. You are looking for the children to know various attributes.

Students could graph the data for you as a teacher to assess their understanding of common attributes.

Bibliography

Research Basis

Sutton, J & Krueger, A. (Eds.). (2004). ED Thoughts: In What Way Can Integrating Curriculum Enhance Learning in Mathematics?

Subject integration helps a student make sense and understand the meaning of new information. If the goal is to produce mathematically literate citizens who can apply mathematical thinking in real-life problem solving, then subject integration is essential. Problem-based learning, using real-life problems, serves as a powerful motivational tool.

Sutton, J & Krueger, A. (Eds.). (2004). ED Thoughts: What is the Impact of Teachers Learning on Student Learning?

One of the strongest predictors of students' success is the quality of their teacher. Highly qualified teachers with both mathematics content knowledge and pedagogical skills are more effective. Teachers who use a more inquiry-based approach and who create learning communities need a deep, connected understanding of mathematical concepts in order to facilitate student learning. Adams, T.L., (Winter 2000/01) Helping Children Learn Mathematics Through Multiple Intelligences and Standards for School mathematics. *Childhood Education*.

Making mathematical connections within mathematics, and between mathematics and other disciplines (NCTM, 1989, 2000), is important to helping children view mathematics as an applicable tool. Because children learn differently and benefit from operating within the strength of one or more intelligences, mathematical connections can help children view mathematics from different perspectives. Children also need to gain a perspective of mathematics as a body of knowledge that is related to other subjects in multiple ways. Curriculum integration is one tool for making these connections explicit.

Authors

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