

Overview

Students will explore math and science concepts as they explore the outdoor or garden classroom.

Engage & Explore

Once students are outside, have them put their hands on their hips (superhero pose) and circle up elbow-to-elbow. A circle is a great way to begin and end any outdoor activity. Once they are in a circle they may drop the pose. Explain that they will be exploring categories in the outside/garden classroom. Explain what a category is, if needed. As a warm-up to the activity, have students take a silent minute to look around at their peers' shoes and see how many categories they can come up with. Ask students to give a category. If someone says a category they also thought of, students can use the ASL sign for "me too." Continue until there are no more new categories or your time limit is up. For older students, you can put parameters on their categories to encourage them to be creative.

Grade Level: K-5

Subject Area: Science / Math

Materials:

Egg cartons (1 per group of 3-4 students)
Index cards

Standards:

Varies with grade level and subject (see Grade Level Ideas)



Activity

Students will explore the outdoor classroom or school garden area and use their senses to explore and collect contrasting items.

- Break students into groups of 3-4.
- Provide each group with an empty egg carton. Secret categories may be written on the bottom of the egg carton or given to students on an index card.
- Set rules for collecting. For example, 1) Items must be smaller than their hand, or items must fit in the egg carton, 2) There must be at least 10 items available for students to collect the item, so as not to deplete any one item.
- Set clear boundaries that students must stay within.
- Remind students they are not to share their specific categories with other groups.
- Set a call back signal for students, such as a whistle or a wolf howl.
- Allow groups 10 minutes to explore and collect their items.

- Call groups back to the circle using your signal.
- Once back in the circle, students will pass their egg carton clockwise to the next group.
- Allow students 5-7 minutes to examine the contents of their new egg carton and determine the categories. They can check with the group to their right to see if they were correct.

Variations

- For younger students, you may want to cut the egg cartons in half.
- The teacher fills an egg carton with items that follow a rule and allow students time to determine the categories. Then they must go and collect items that follow the same rule but may not repeat any item in the teacher's egg carton.
- Use categories other than contrasting.
- Allow students to set the categories.

Contrasting Category Examples

- Hard / soft
- Shiny / dull
- Rough / smooth
- Green / brown
- Scented / unscented
- Living / nonliving
- Symmetrical / asymmetrical
- Biotic / abiotic
- Flexible / rigid

Grade Level Ideas

Science

K-1: Living/nonliving, physical properties such as hard/soft, shiny/dull, smooth/rough

2-3: Pick two plant parts such as leaves/stem or roots/flowers (a great opportunity to pull some weeds), compostable/non-compostable

4-5: Food/non-food, biotic/abiotic

Math

K-1: Items in each column add up to the same specific numerical value. Greater than / less than: items in one row will be greater than a certain number / items in the other will be less than that number

2-3: Even/odd

4-5: Multiples of 2, multiples of 3, symmetrical/asymmetrical

Your Notes & Ideas