

Plant Something For ME Math Lesson

Objective: Students will be able to create a pattern using multicolored and/or multi shaped leaves or flowers or plants or seeds.

Phenomenon: The ability to recognize and create patterns help us make predictions based on our observations; this is an important skill in math.

Essential Question: If there were no seasonal changes in temp. Would the trees lose their leaves? What are some of the changes in patterns we see with the changing of the seasons?

Understandings: What patterns and how patterns in the weather create the seasons.

Vocabulary (these may vary according if used with K, 1 or 2):

Pattern Hibernation

Axis

Rotation Revolution

Bar Graph Pictograph

Evergreen Trees

Deciduous Trees

Materials:

Multi colored leaves and/or types of flowers or plants

Multi colored seeds and/or different types of seeds

Pictures related to summer, winter, fall, spring (can do types of trees or habitats, etc as well)

Preparation: Group Students into 4/5 groups depending on class size. Create space for 4/5 centers (at each students will practice creating patterns) Patterns worksheet for students to record the patterns/ or take picture on iPad (younger students can make color/ shape patterns with leaves, older students and find patterns in habitats, etc)





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Step 1: Teach students to find patterns using flowers, seeds, etc.

Differentiation: If students already know how to find simple patterns have them search for a more complex pattern - plant changes during seasons, etc.

Standards:

K - Classify objects and count the number of objects in each category.

CCSS.MATH.CONTENT.K.MD.B.3

K-ESS2-1 Earth's Systems

Use and share observations of local weather conditions to describe patterns over time.

K-ESS3-1 Earth and Human Activity

Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live

1 - Represent and interpret data.

CCSS.MATH.CONTENT.1.MD.C.4

1-ESS1-2 Earth's Place in the Universe

Make observations at different times of year to relate the amount of daylight to the time of year.

2 - Represent and interpret data.

CCSS.MATH.CONTENT.2.MD.D.10

2 - LS4-1 Biological Evolution: Unity and Diversity

Make observations of plants and animals to compare the diversity of life in different habitats.

Helpful links:

<https://kellivogstad.com/2015/10/04/why-is-my-kid-building-patterns-again-the-importance-of-patterning/>

<http://www.mathworksheetscenter.com/mathtips/mathpatterns.html>



28 State House Station, Augusta, ME 04333

maitc@maine.gov

207.287.5522