



**\*Mathematics**

# **Sorting Veggies**

Peter Rabbit has visited Farmer McGregor's farm many times and collected a variety of different vegetables. Unfortunately, Peter does not know how he wants to organize them and needs help.

## **Kentucky Mathematics Arts**

**Probability and Statistics (2.8, 2.12, 2.13) Grades K-3**

### **Academic Expectations:**

2.8 Students understand various mathematical procedures and use them appropriately and accurately.

2.12 Students understand mathematical structure concepts including the properties and logic of various mathematical systems.

2.13 Students understand and appropriately use statistics and probability.

## **Ohio Mathematics Standards: Data Analysis and Probability**

### **Benchmarks Grades K-2**

A. Pose questions and gather data about everyday situations and familiar objects.

B. Sort and classify objects by attributes, and organize data into categories in a simple table or chart.

C. Represent data using objects, picture graphs and bar graphs.

### **Grade 3**

B. Read and interpret tables, charts, graphs, and timelines as sources of information, identify main idea, draw conclusions, and make predictions.

C. Construct charts, tables, and graphs to represent data, including picture graphs, bar graphs, line graphs, line plots and simple Venn diagrams.

## **Objective**

Students will:

- Demonstrate their ability to examine a variety of vegetables to sort, classify, group and tally by multiple attributes—color, shape and size.
- Convert data from tallies and tables into a visual graphic format.

## **Assessment**

Student will be able to:

- Gather data about familiar objects.
- Sort and classify familiar objects into groups based on multiple attributes.
- Tally information into a data table.
- Translate tallied data into a graphical representation.

Sample selected response items to gauge student understanding:

1. To group objects together, you might look for like color, size, shape and/or texture. Agree or disagree?

*Answer: Individual student response. Emphasis on shared attributes by various objects.*

2. Which letters could be classified (grouped together) because of their shape?
  - a. O, Q, C, G
  - b. Z, B, L, O
  - c. I, L, O, C

*Answer: a. All of the letters are round in shape.*

3. If you were going to classify 5 objects from the classroom into a group how would you choose?

*Answer: Individual student response. Emphasis on objects sharing like attributes or qualities; **student language**=things looking alike.*

### **Vocabulary**

- Vegetable
- Attribute
- Classify
- Group
- Tally mark
- Data

### **Materials**

- Boxes or baskets labeled with a name of a color
- Boxes or baskets labeled with a name of a shape
- Boxes or baskets labeled with a name of a size
- Chart paper
- Markers
- A variety of different vegetables (real or fake, pictures, or a combination)
- Handout

### **Activity**

#### **Veggie Tables**

##### **Teacher will:**

1. Pre-prepare and label individual boxes/baskets with a name of a color (e.g., red, yellow, orange and green)
2. Pre-prepare and label individual boxes/baskets with a name of a shape (e.g., circle, oval, oblong, and rectangle).
3. Pre-prepare and label individual boxes/baskets with a name of a size (e.g., large, medium, small, and tiny).
4. Display a grouping of vegetables for whole class viewing. Explain that the vegetables represent those found in Farmer McGregor's garden, as seen in The Children's Theatre of Cincinnati's production of *The Rockin' Adventures of Peter Rabbit*.
5. Challenge students to assist Peter Rabbit with the task of sorting and categorizing the vegetables for winter storage. Explain that the vegetables will be sorted by color, shape and size.

6. Have students observe an individual vegetable to identify its color. Student volunteers will place the item in the correct box/basket and add a tally mark to a large wall chart (See Handout, "Veggie Tables")  
*Option: supply each student with a copy of the handout.*
7. Repeat this activity of vegetable identification by shape and by size, and the recording of tally marks.
8. Have students examine the total number of tally marks for each attribute once all of vegetables have been classified by color, shape and size to identify shared qualities of the vegetables.
9. Have students decide and classify the vegetables into like groupings for winter storage.
10. Have students convert tally marks on wall chart into individual visual graphic representations of the resulting data—bar graphs, circle graphs, etc.
11. Facilitate discussion to address the similarity between the vegetables although each has its own specific qualities and attributes.
12. Share with students this same fact about people, dramatic characters, and even musical notes.



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**Handout: Veggie Tables**

Name \_\_\_\_\_

**Directions:** Place a tally mark in the correct box that describes the attributes for a specific vegetable.

Attribute	Vegetable	Vegetable	Vegetable	Vegetable	Vegetable	Total
Red						
Yellow						
Orange						
Green						
Circle ○						
Oblong/ Oval 						
Rectangle 						
<b>Large</b>						
<b>Medium</b>						
<b>Small</b>						
<b>Tiny</b>						