

### Description

Make observations on apples as you sort, graph, and count your findings!

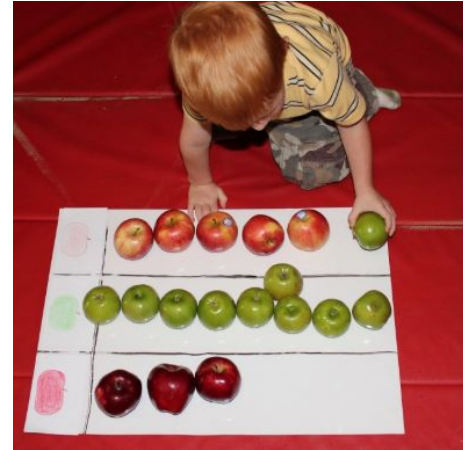
- Age: 2-6
- Time: 15 minutes

### Learning Objectives

- Children will sort apples by color into groups, graph results, and count apples.

### Vocabulary

- Sort: to place objects in groups based on similar characteristics
- Graph: a way to organize the information that we get from sorting objects



### Materials

- Apples (colors may vary- use at least 3 different colors for sorting and graphing) (Number of apples may vary)
- Large white paper
- Markers/Crayons/Colored Pencils

### Safety Precaution

- Adults should ensure that all children participating are free of allergies to apples.

### Implementation

#### Introduction

Ask your child background knowledge on sorting: Do you know what it means to sort things? How do you sort objects? Why do you think it is a good idea to sort things into groups? Sorting is when we put objects into different groups based on characteristics or details. We might sort things by color, shape, size, or any other details that we can think of! Let's take a look at sorting with this video:

<https://ca.pbslearningmedia.org/resource/ket-earlychild-math4/clean-up-time/#.Xg-ZtmRKjIU>

What are some things that you think we can sort? (Let ideas flow). Let's try sorting with apples by color today. To keep track of our different groups, let's use a graph to keep it organized.

#### Procedure

1. Gather apples and place them on the table.
2. Place a large white paper on the table.
3. Using a marker/crayon/colored pencil, create the lines for your graph by splitting the paper into the appropriate amount of categories. (Example: three colors of apples will need three sections on the paper.)
4. Label the graph by coloring an apple on the bottom of each section. (Example: label one section with a yellow apple if you have yellow apples, one section with dark red if you have dark red, and green if you have green. Color the labels to match the different colors of apples that you have available. See photo for example.)
5. Have the child sort the apples into the graph sections based on color.

6. Have the child count the apples in each section. Have the child point to each apple for one-to-one counting. (You can practice number writing by writing the number on the graph section if you wish!)

## Questions to Prompt Inquiry

1. Are all the apples the same? What do you notice about them?
2. How do you know that that apple goes in that section?
3. How many apples are in this section? How do you know?

## Conclusion

Discuss what the children learned. What did they notice? What were they surprised about? Did they know that there were so many different kinds of apples? By looking at the graph, which color of apple had the most apples? Which color had the least amount of apples? If I ate this apple, now which color has the most/least apples? Graphing helped us organize our different sections of colors so that our information was easy to look at and count. Graphing helps us take a deep look at what we learned from sorting our apples into small groups by their color.

## Tips and Suggestions

### Activity Extensions

- Math: Looking for a way to use all of the apples that you gathered for this activity? Cooking with children is a great way to practice math skills with measuring and counting. Try recipes like apple pie, cinnamon apple chips, applesauce, apple cinnamon bread, apple muffins, or baked apple slices.
- Art: Use some of the apples that you gathered to paint. Apple art is a fun way for kids to use apples (cut in half) and make prints with paint. You can make patterns with colors, recreate a fall picture, or create a new design.
- Science: Discover the details of the apple! What is an apple made of? Dissect an apple and discover the seeds (estimate the number of seeds), the stem, the firm inside, the smooth waxy outside, patterns, and taste. Cut the apples from different angles. What do you notice?  
<https://www.giftofcuriosity.com/dissecting-an-apple-montessori-inspired-activity/>

### Adapting to Home/Classroom/Public space

- Classroom Setting: This lesson is best completed in small groups (2-4 children) to ensure that all children can participate in hands-on sorting, graphing, and counting the apples.
  - Graphing can be completed on individual papers by coloring the number of apples for each color to complete their own graph based on findings!

## Learn More!

Adapted from:

<https://teachingmama.org/15-hands-on-math-activities-preschoolers/>

- a. Links to learn more:  
<https://teachingmama.org/8-apple-activities-for-preschoolers/>
- b. Reading recommendations: Apple Farmer Annie by Monica Wellington

