

Kindergarten Grade Math

ELG K.MD.B Classify objects and count the number of objects in each category.

Vertical Progression:

<p>TS Gold</p>	<p>13. Uses classification skills. 6. Groups objects by one characteristic; then regroups them using a different characteristic and indicates the reason.</p> <p>20. Uses number concepts and operations. 20b. Quantifies. 6. Makes sets of 6-10 objects and then describes the parts; identifies which part has more, less, or the same (equal); counts all or counts on to find out how many.</p>
<p>Kindergarten</p>	<p>K.MD.B Classify objects and count the number of objects in each category.</p> <ul style="list-style-type: none"> ○ K.MD.B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
<p>1st Grade</p>	<p>1.MD.C Represent and interpret data.</p> <ul style="list-style-type: none"> ○ 1.MD.C.4: Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Students will demonstrate command of the ELG by:

- Classifying objects into categories.
- Counting objects in each category.
- Sorting the categories by count.

Vocabulary:

- attributes
- category
- classify
- count
- sort

Sample Instructional/Assessment Tasks:

1) Standard(s): K.MD.B.3

Source: Illustrative Mathematics

<https://www.illustrativemathematics.org/content-standards/K/MD/B/3/tasks/799>

Item Prompt: Sort and Count I

Setup:

You will need sorting cards or items, for example: colors, shapes, animals, foods, etc. Cards should be able to be sorted multiple ways (example, foods could be sorted by color, then sorted by fruit vs. veggie vs. grain). Another example is animals could first be sorted by pet vs. wild animal vs. farm animal and next be sorted by number of legs and finally be sorted by furry animals/skin animals/scale animals.

First have students look at the cards and decide two or three different ways to sort. Next each student can randomly choose a card or item. Then when all class has one, they sort themselves into categories according to color, shape, type of animal or food they have. Then the teacher can ask the questions: "Which group has the most?" "Which group has the least?" "Do any groups have the same number?" The students count the groups and answer the teacher's questions.

Solution:

The students should become familiar with the math vocabulary more/less/same and most/least. The students should be able to count and compare small groups.

2) Standard(s): K.MD.B.3

Source: Illustrative Mathematics

<https://www.illustrativemathematics.org/content-standards/K/MD/B/3/tasks/990>

Item Prompt: Sort and Count II

Setup:

Materials: Ziplock bags containing 10-30 small objects (such as buttons or shapes cut out of construction paper) with different characteristics. Students get a bag of small objects. Each bag should contain objects that can be sorted in multiple ways. For example, if the bag contains round buttons, students can sort by color, size, or the number of holes in each button. If the bag contains different shapes in different colors, they can sort by color or shape. Students take their bag and spill it onto a large sheet of paper or a tray. Students then sort them according to one attribute such as color, shape, size, or some other attribute. When they have sorted all of the objects, students then count the number of objects in each group. When students have finished sorting and counting according to one attribute, they sort and count according to another attribute.

Solution:

The teacher should accept any way the child wants to sort the objects, so long as the child can explain their reasoning and is based on one attribute.