Beginning Graphing

GRADES 1-3

REM 152

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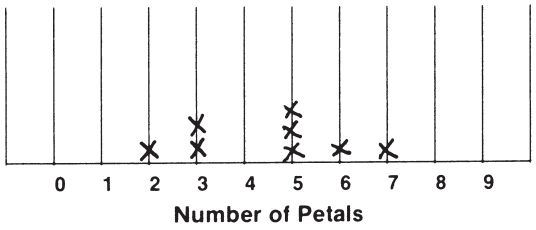
Beginning Graphing
- Introduction -

Beginning Graphing gives children practice with several different types of graphs. As they participate in the activities, they will become more skillful in retrieving information displayed in graph form. At the same time, they will learn how to use a graph to communicate information.

It is suggested that as each activity is completed, oral discussion follow. The teacher can ask many questions allowing children to use the graph as a reference to find answers.

TALLY LISTS: The first activities give practice using tally marks to record quantities. It should be stressed that this method allows adding more without changing a number each time (~~1~~ ~~2~~ ~~3~~ ~~4~~ 5). Using the diagonal line ~~1~~ ~~2~~ ~~3~~ ~~4~~ ~~5~~ to show groups of five makes counting very fast. The information gathered on a tally list can then be transferred to one of the graph formats.

HISTOGRAMS: One of the easiest graphing techniques for beginners is the histogram. It is especially useful for recording information about single, like objects having multiple parts. Activities in this book include petals on flowers, beads on a string, etc. Care should be taken that children understand the X on the histogram stands for the whole object, not the parts.



Many questions can be asked from a completed histogram: *What are the most petals found on a flower? What was the fewest number? How many flowers had four petals? How many petals were most often found on flowers? If someone asked you how many petals a flower has, what would you answer?*

Create your own histogram using the form on page 45. Some suggestions for activities include:

- Number of buttons on shirts people are wearing
- Number of peas in a pod. (Buy fresh peas in season. Give each child a pod. Use a histogram to record the number of peas.)
- Number of people in a family

BAR GRAPHS: Both horizontal and vertical bar graphs are presented. Children will soon see that similar information can be displayed on either format. The practice activities begin with cut and paste graphs. These enable children to actually put a graph together one step at a time. Following these are more abstract concepts. A colored space represents an actual object. There are also completed graphs from which they must obtain answers to questions. The final activities allow them to gather information and transfer it to the graph format. Blank graphs are provided for your use. Some suggestions are: cups of small jelly beans to sort and graph by color; individual-sized bags of M&Ms or Skittles to sort and graph; boxes of animal cookies to sort by shape; colored or different-shaped cereals to sort and graph.

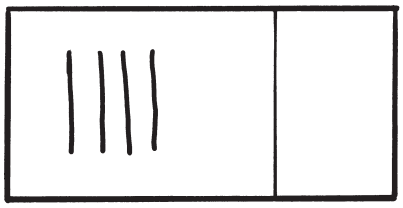
PICTURE GRAPHS: These graphs use picture symbols to represent quantities. The practice activities begin with one-to-one correspondence — one picture equals one actual object. Since picture graphs are excellent for representing large quantities, this concept is also presented — one picture equals mutliple objects. Students also practice transferring data from a tally list onto a picture graph and finally, gathering information and creating their own. A blank format is included.

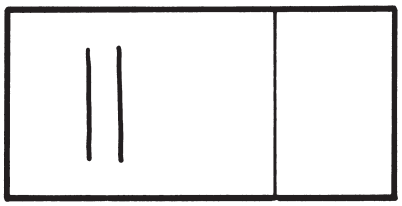
LINE GRAPHS: These are presented with introductory activities. This type of graph is not used as frequently by beginners as the other types, so activities are fewer. They will experience reading and creating this type.

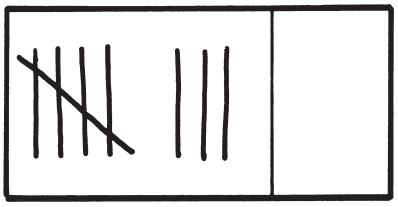
A chart on which students can keep track of their progress can be found on page 46. All of the activities in this book are excellent as large or small group projects, individual assignments, or as home assignments.

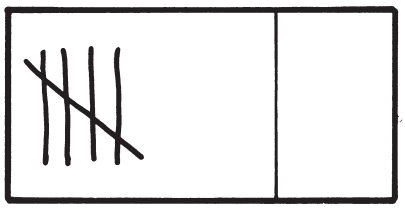
Name _____ **Tallying**

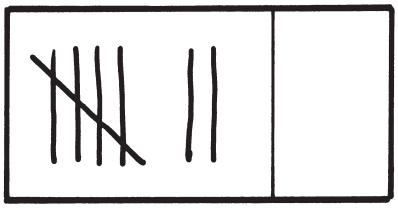
Count tally marks. Write the number.

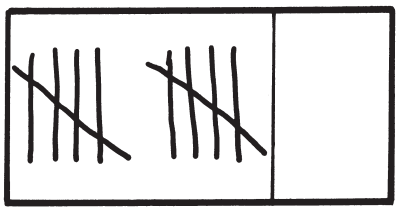






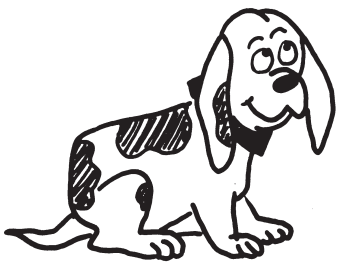






Make tally marks to show the number.

6	
8	
4	
3	
10	
7	
5	
9	



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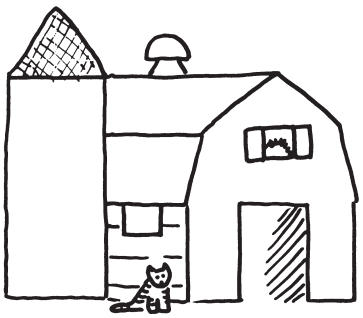
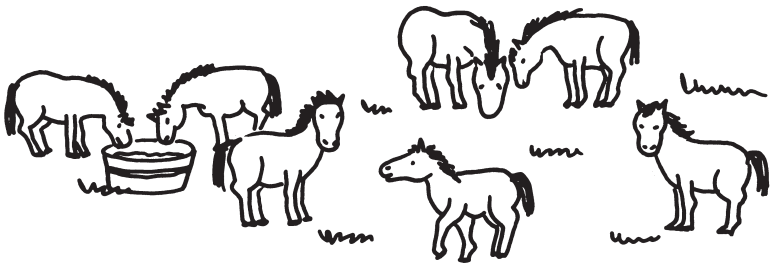
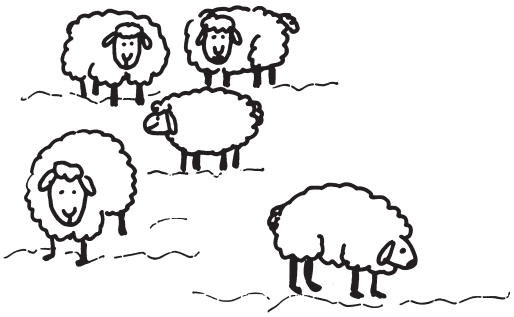
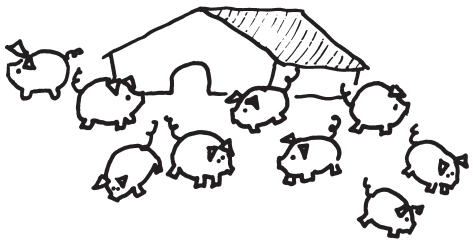
Name _____ **Tallying**

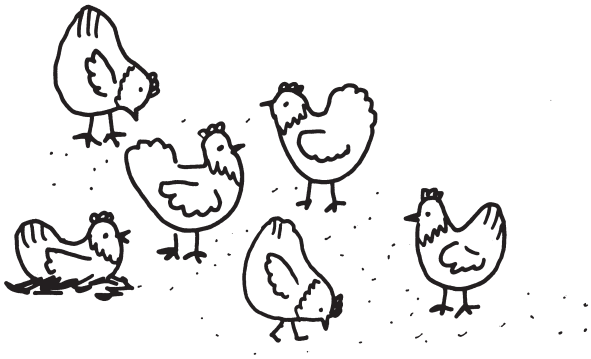
Make a tally mark for each animal. Color the animals.

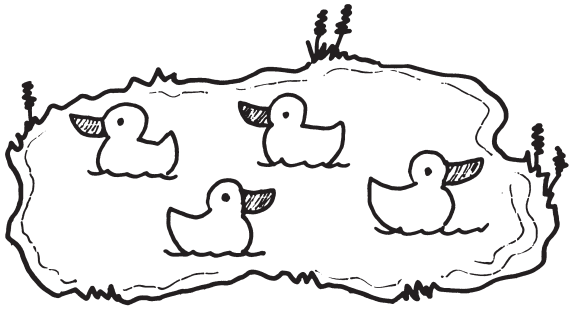


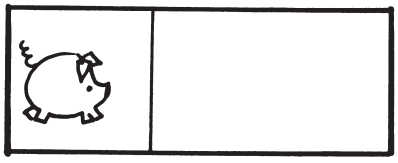


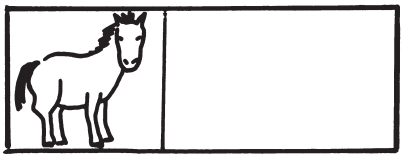


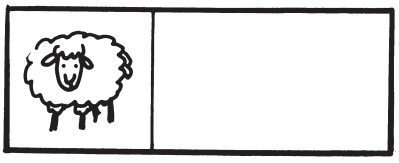


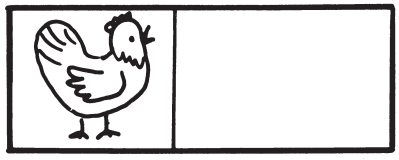




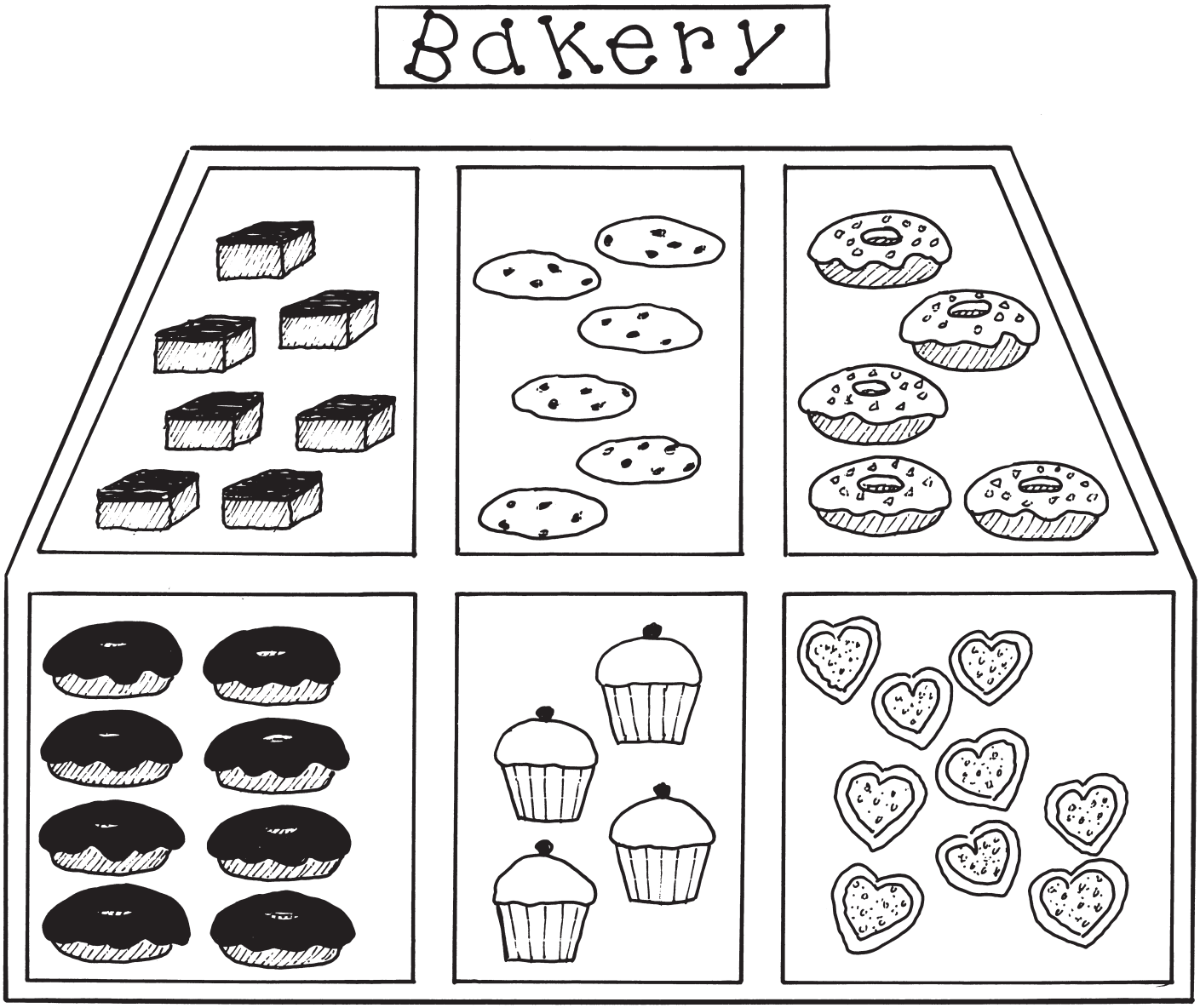




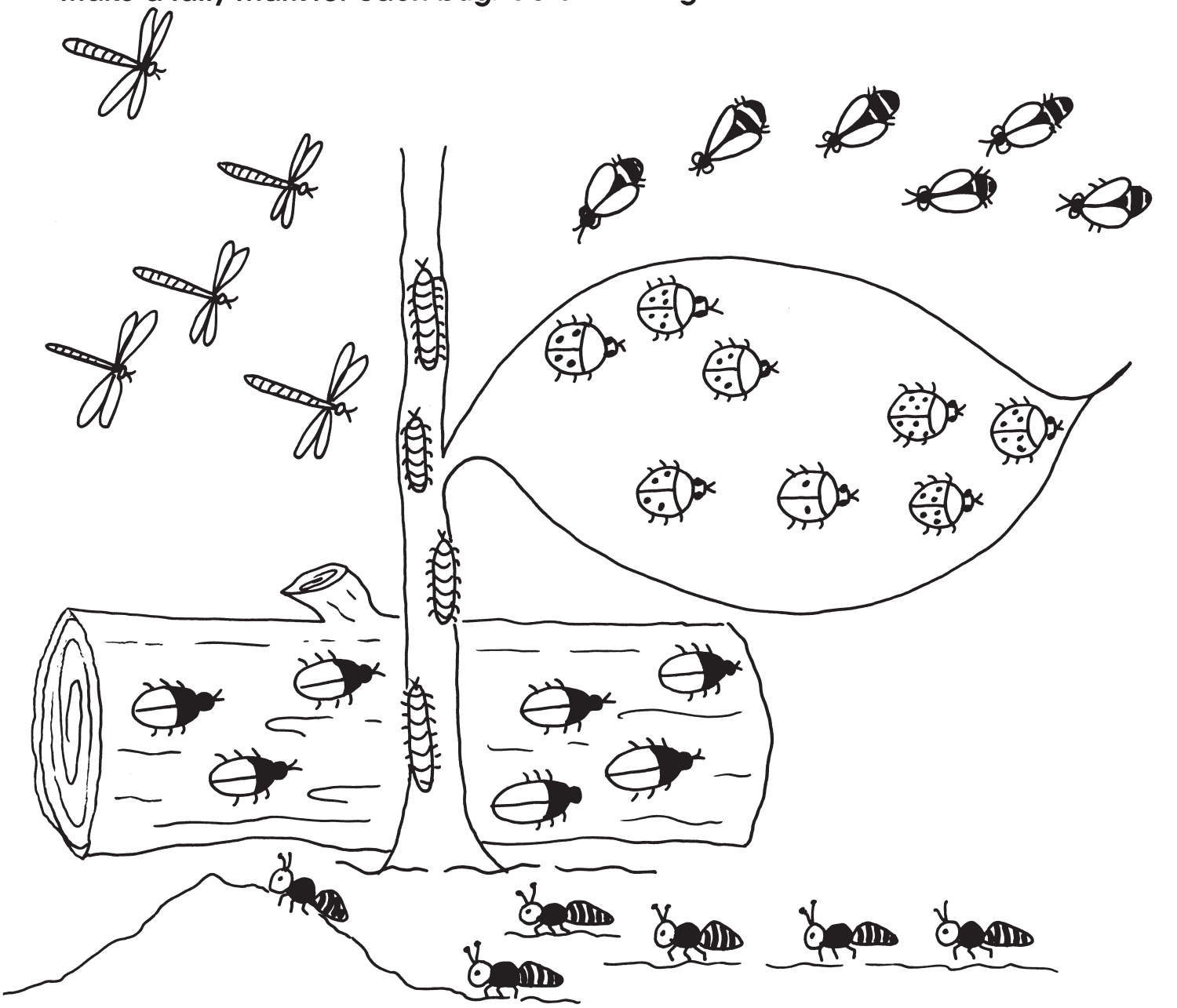


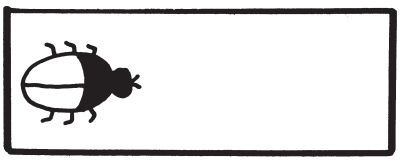


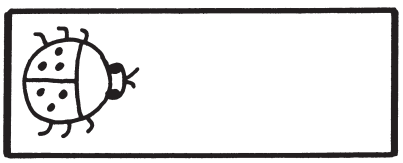
Make a tally mark for each goodie. Color each goodie.

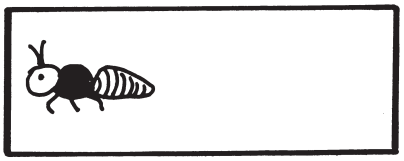


Make a tally mark for each bug. Color the bugs.

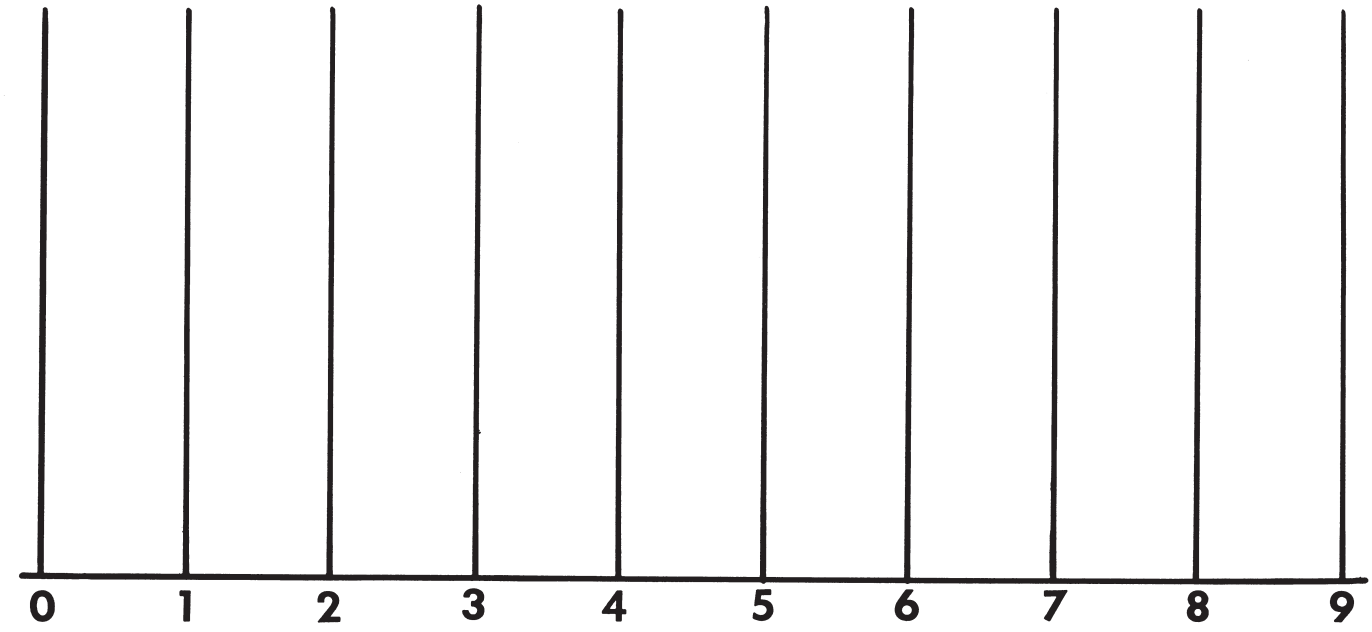


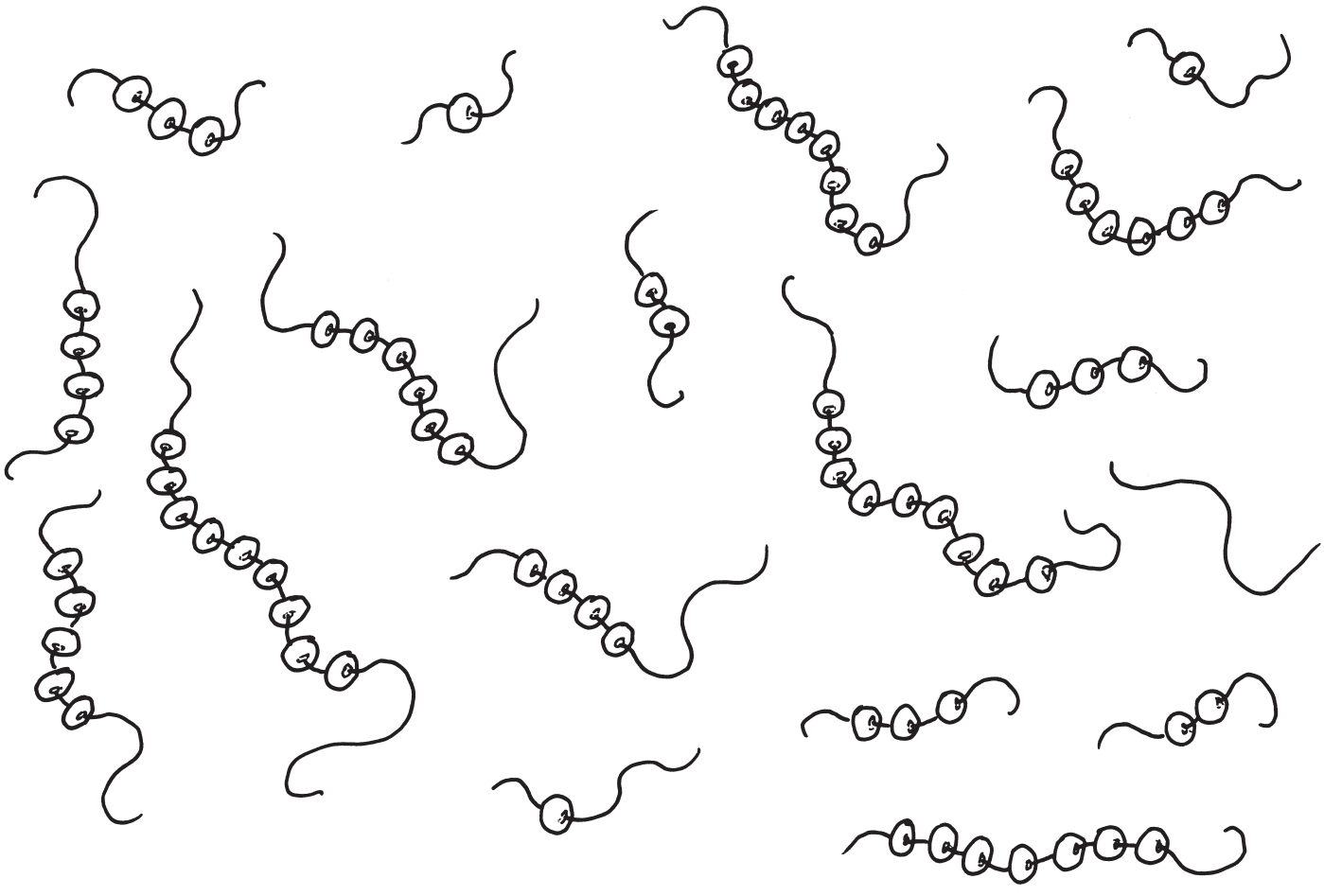






Make an X to show how many beads on each string. Color the beads.





Make an X to show how many petals on each flower. Color the flowers.