## Math Assignment Cards

The following activities have been introduced by Mrs. Margaret Wilmot of the Reading Center, University of Colorado, and Manchester, Massachusetts. Her collection includes many more subject areas besides reading and mathematics.

These ideas for learning center activities are shared by Mrs. Margaret Wilmot. It is suggested that each idea be written on a file card. Put materials needed for each activity on the back of each card.

These cards are open-ended and can be used at many different levels. However, they are not designed for totally independent works. One of the functions of the teacher will be to help the intermediate students collect, tabulate, and interpret data so that they can apply some of their skills to situations that are outside the textbook.

My main objective for all the students is that they learn to enjoy mathematics.

## Activity

CARD 1 - Make a collection of people. Define your collection. How many ways can you rank them? How did you measure them? How can you chart your results? (clue ... paper people)

CARD 2 - Choose six plastic containers. Estimate which holds most, which holds least. Check your estimation. How did you measure? Record your results.

You need: Plastic containers
Sand
Water
Rice
Spoon
Cup
CARD 3 - Take all the children in our class. Sort them into sets. Record your results like this:

boys

girls
(clues ... blue eyes, age, black hair, et cetera)

How many other sets can you find?
You need: Friends
CARD 4 - Take the box of shapes. Sort them into classes. How did you do it? Record your results.

You need: Box of shapes
CARD 5 - The Consumer Council hopes soon to pass a bill which will make it mandatory to send, at a consumer's request, all test results which are quoted in television (or other) advertisements.

Watch TV and the newspapers for advertisements that make extravagant claims. Write to the company concerned and ask for test results.
Try to make tests for comparison (paper towels, babies' diapers, et cetera).
Just for fun, make up some products with crazy test results and act out some commercials.

You need: Paper, envelopes, stamps
TV Newspapers

CARD 6 - 1. Take a partner out into the school community. Observe some of the services such as collection of lunch money, movement of classes, telephone answering, making dittoes, et cetera.
2. Examine and write down the steps in each process, the personnel needed, et cetera.
3. Check whether the service is working smoothly or not. See if you can work out why.
You need: Tact
Notebook and pencil
CARD 7 - 1. Have your friend tell you the way he goes home from school.
2. Draw a map as he tells.
3. Have another friend turn the map back into words.
4. Check your map with the map of your city.
5. What more do you need to know about making and reading maps?

You need: Two friends
A map of your city

CARD 8 - You have been given $\$ 50$ to pay for a party or outing for your class.

1. How would you find out what the class wants?
2. How would you spend the money so that most of the class is contented?

You need: Tact
Patience

CARD 9 - Make a school survey. During a specified interval of time, count the number of smiles seen, frowns seen, angry people, sad people, happy people, frightened people. You will need help from friends. Tabulate your data. Compare it with other data. Try to interpret it.
You need: Friends

CARD 10-1. Take the air temperature in as many places as you can.
2. Table the results.
3. Try to account for differences, if any.

You need: Thermometer

CARD 11 - 1. Make a collection of people. Define the collection.
2. Categorize them in many different ways, that is, height, age, and speed.
3. What measures did you use? How can you chart your results?
(clue ... paper people)
You need: Friends

CARD 12 - Statistics:

1. Form a trio with friends. Set up a traffic watch for a specific length of time. (Two people write and one spots.)
2. Keep a record of time intervals, total number of vehicles, kind of vehicles, origin of vehicles (state), and direction of vehicles.
3. Tabulate or graph your data.
4. Interpret your findings.

You need: Friends

CARD 13 - 1. Find, draw, and write about six wide and six narrow things.
2. How did you measure them?
3. Which was widest? Which was narrowest?

CARD 14 - 1. Make a collection of cereal boxes. How many ways can you order them? Shortest to tallest or largest to smallest, et cetera.
2. How did you measure?

You need: Cereal boxes
Sand

CARD 15 - 1. Find, draw, and write about six tall and six short things.
2. How did you measure them?
3. Which was tallest? Which was shortest?

CARD 16 - Make a collection of books. How many ways can you order them? What did you use to measure?

You need: Books
CARD 17 - 1. Make a collection of bottles. How many ways can you order them?
2. How did you measure them?

You need: Bottles
Water
CARD 18 - Choose four different plastic containers. Describe one to your partner. Use words that tell about shape, size, color, et cetera. Did your partner guess right? Take turns. Write down the best description.

CARD 19 - Estimate, then check your guess... How many children in our class? How many children in first grade? How many children in the school? How many boys in the school?

CARD 20-1. Form a trio with friends. Set up a traffic watch for a specific length of time. (Two people write and one spots.)
2. Keep a check list record of time intervals, total number of vehicles, kind of vehicles, state of origin, and direction of vehicles.
3. Tabulate and interpret your data.
4. Compare these results with those taken at a different time of day.

You need: Notebook and pencil
Stop watch
CARD 21 - Make a collection of boxes. How many ways can you rank them? Shortest to tallest or largest to smallest? How did you measure them?
Words you may need: Narrow
Wide
Deep
Shallow
CARD 22 - Measure the first grade play area. Plot the dimensions on squared paper. How much ground area does each first grade child have to play in?

You need: Squared paper
CARD 23 - List five staple foods. Compare the prices of these foods in as many different stores as possible. Don't forget to look at weight as well as price. If there are any differences, try to account for them.
You need: Tact
Notebook and pencil
CARD 24 - Record the length of your shadow at stated times during the day. Compare your results with a friend's. What is the relationship to your height? What is the relationship to time of day? Draw a graph to show this.

You need: String or measuring stick

CARD 25 - Find, draw, and write about six wide and six narrow things. How did you measure them?

| Words you may need: | Narrow <br>  <br>  <br> Wide | Narrower <br> Wider | Narrowest <br> Widest |
| :--- | :--- | :--- | :--- |
|  | Long |  |  |
|  | Short |  |  |

CARD 26 - Which weighs most... a paper cup of sand or a paper cup of water? Use other materials to compare. Tabulate and graph your results.
You need: Paper cups
Scales
Materials to weigh
CARD 27 - What happens in one minute? Use the second hand of the clock. One person watches the time. One person performs the activity. One person counts. Tabulate your data. Suggestions... How many different numbers can you write? How many times can you touch the floor? How many times can you cross the playground?

CARD 28 - Make a marble track. Place it at the edge of a piece of carpet. Measure how far the marble rolls. Repeat 99 times. Tabulate your data. Graph the data. Interpret your results. Repeat the experiment with toy cars. Compare the results.
You need: Card for a marble track
Piece of carpet
Toy cars
CARD 29 - Measure the height and weight of twelve people. Tabulate the data. Show the data in a graph. Interpret the graph.

You need: Friends
Metre stick
Scales
CARD 30 - Take three baby food jars. Fill one with paper clips. Fill one with thumbtacks. Fill one with beans. Ask people to guess how many. Tabulate your data. Estimate the number in each jar. How can you check your estimate?
You need: Baby food jars Friends

CARD 31 - Draw and cut out three squares, four trianges, two circles, and five rectangles. You may use the box of shapes. Make a picture with the shapes. Write about your picture.

