

PAPER CUP TOSS

Objective: Perform a probability experiment and graph the results on a bar or line graph.

Materials: Paper Cup Toss Activity Sheet per Group
Paper Cup Toss Graph Sheet per Group
Paper Cup Toss Activity Sheet Transparency
One paper cup per group
Markers

Procedures:

1. Work in groups of two. Each group should perform the experiment once. Review instructions for Paper Cup Toss with participants.
2. First determine the possible outcomes of tossing the paper cup into the air.
3. Predict which way the cup will land more often.
4. As students complete the experiment, walk around the room observing and providing assistance if needed.
5. Collect the data from the entire class.

Extensions:

1. Challenge students to think of other activities or games with unequally likely outcomes.

Notes:

1. Have students vary the way they toss the cup to determine if they can alter the outcomes.

PAPER CUP TOSS

This is an experiment that deals with probability. You will use the results to construct a graph.

- First determine the possible outcomes of tossing a paper cup into the air. Try it and see what happens. Record the outcomes on the table.
- Predict which way the cup will land more often.
Prediction: _____
- Toss the cup 20 times and record the results on the table.
- Construct a bar graph or a circle graph with the collected data.

| OUTCOMES | TALLY | FREQUENCY |
|----------|-------|-----------|
| | | |
| | | |
| | | |

- How did the cup land more often? _____
- Why do you think this happened? _____
- How do your results compare with other groups? _____

- If this were a game, would it be fair? _____
Explain. _____
- Compare the number of times a given outcome occurred to the total number of times the cup was tossed in the the air by your group. _____
- Repeat Step 5 using the data for the entire class. _____
- Refine your prediction of the way the cup will land more often. _____

