

PAPER TOWEL TESTING



Teacher's Guide



Time Frame

Teacher Preparation	50 minutes
Session 1: Conducting Experiments	30–40 minutes
Session 2: Discussing Results and Planning Follow-up Experiments	30 minutes
Session 3: Conducting Follow-up Experiments	45 minutes
Session 4: Which Brand is the Best Buy?	35–45 minutes

What You Need *(for all sessions)*

For the class:

- 1 bucket of water or access to a sink
- 1 large felt-tipped marker
- 4 brands of paper towels (1 roll of each)
- 12 pounds (5 or 6 kg) of small objects to use as weights (See Getting Ready on page 4.)
- 1 or more calculators
- 2 large sheets of butcher paper or a chalkboard

For each group of 4 students:

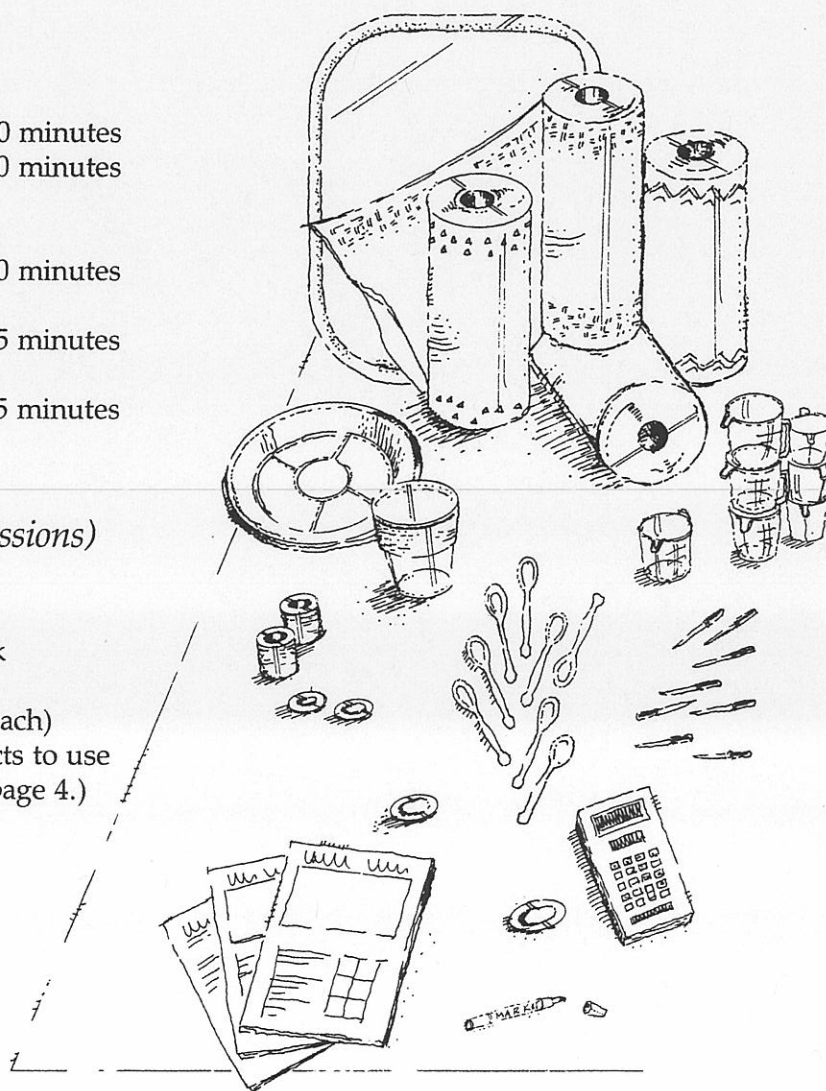
- implements for measuring liquid
 - 1 medicine dropper
 - 1 plastic teaspoon
 - 1 8-oz. measuring cup

(Your students can use these three items to measure small, medium, and large amounts of liquid. If you have access to graduated cylinders, they are preferable, and can replace the spoon and measuring cup.)

- 1 6–8 oz. cup
- 1 foil pie plate
- 1 cafeteria tray
- 1 large rubber band (can be used to hold paper towel during weight test, as shown on page 10.)

For each student:

- 1 copy of each data sheet (masters included, pages 11–13):
 - “Absorbency Test Results”
 - “Wet Strength Test Results”
 - “Cost Per Sheet”
- 1 sheet of scratch paper
- 1 pencil



If your students are unfamiliar with using measuring devices, you might want to provide an opportunity for them to practice measuring before they begin their tests. Ask them to determine how many drops of water fit in a plastic spoon, and how many spoonfuls of water fit in ¼ cup.

Some students have requested the use of additional equipment for conducting their experiments, such as: scissors, balances, rulers, embroidery hoops, and masking tape. If you have these or similar equipment available, you may want to provide it on an optional basis.