

Towel Time Test

Plan clear timing events and measure elapsed time in an investigation.

4.1.b.v "planning and carrying out investigations measure elapsed time"

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Circle these two exact phrases in the first paragraph: "when the water first touched the towel" and "when no shiny water remained on top of the towel." They name the events that begin and end each elapsed-time measurement.

Measuring Water Absorption

- ① To find out how fast a paper towel absorbs water, Maya planned one fair test. She used the same size towel square, one tablespoon of water, and a stopwatch for each trial. For every trial, she would start timing when the water first touched the towel. She would stop timing when no shiny water remained on top of the towel. These clear events made each elapsed-time measurement match.
- ② Maya tested three towel squares. In trial 1, the towel absorbed the water in 18 seconds. Trial 2 took 21 seconds, and trial 3 took 19 seconds. She wrote each time beside its trial number right after stopping the stopwatch. Because she measured in seconds each time, Maya could compare the trials. The second trial had the longest elapsed time.
- ③ Before testing, Maya made a data table with headings Trial and Elapsed Time in seconds. She decided to do three trials so one unusual result would not decide her conclusion. She also planned to keep the amount of water and towel size the same. After measuring, she found the times were close together. Her plan helped her measure time carefully and collect evidence about absorption.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What event tells Maya to start the stopwatch?

2 What event tells Maya to stop the stopwatch?

3 What was the elapsed time for trial 2, including the unit?

4 Which trial had the longest elapsed time? How do you know?

3 YOUR TURN _____ Your own words

Plan and carry out a fair test comparing two paper towel brands. Use same-size towel squares and one tablespoon of water for every trial. Start timing when the water contacts the towel, and stop when the full tablespoon has been absorbed. Test each brand twice, then record each elapsed time in seconds.

PAPER TOWEL BRAND	TRIAL	ELAPSED TIME (SECONDS)

PART 1 • READ AND MARK

Circle these two exact phrases in the first paragraph: “when the water first touched the towel” and “when no shiny water remained on top of the towel.” They name the events that begin and end each elapsed-time measurement. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What event tells Maya to start the stopwatch?	She starts the stopwatch when the water first touches the towel.
2	What event tells Maya to stop the stopwatch?	She stops the stopwatch when no shiny water remains on top of the towel.
3	What was the elapsed time for trial 2, including the unit?	21 seconds
4	Which trial had the longest elapsed time? How do you know?	Trial 2. It took 21 seconds, which is longer than 18 seconds and 19 seconds.

PART 3 • YOUR TURN (SAMPLE ANSWER)

PAPER TOWEL BRAND	TRIAL	ELAPSED TIME (SECONDS)
Brand A	1	18
Brand A	2	19
Brand B	1	24
Brand B	2	23

Accept any reasonable recorded times if the student uses two brands, two trials per brand, and seconds. The student must use the stated observable start event and stop when the full tablespoon has been absorbed.