The Soak Test

A close-reading procedure for tracking order, timing, and measurements.

CCSS.ELA-Literacy.RST.6-8.3 "Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each action you must perform. Circle every number or measurement, then number the main actions in the order you would do them so you can follow the procedure precisely.

Testing Paper Towel Absorption

1. To compare how much water different paper towels absorb, set up a fair test. Gather three towel brands, a ruler, scissors, a balance that reads grams, a tray, a cup of water, tongs, a timer, and a data table. Label the brands A, B, and C. From each brand, cut three squares that are exactly 10 centimeters by 10 centimeters. Keep the squares dry. Weigh each square before testing, and record its dry mass in the correct row of the table.

2. Test one square at a time. Use the tongs to place a square completely under the water for 30 seconds. Remove it with the tongs, hold it above the tray for 10 seconds, and then weigh it right away. Record the wet mass beside that square's dry mass. Do not squeeze, shake, or press the towel. Repeat these actions for the other two squares from the same brand before you begin a different brand. Use fresh water if the water becomes cloudy or contains towel pieces.

3. After all nine squares are tested, find the water mass for each trial by subtracting dry mass from wet mass. Add the three water-mass results for one brand, then divide by three to find that brand's average. Compare the three averages. The brand with the largest average absorbed the most water under these test conditions. For a reliable comparison, change only the towel brand. Keep square size, soaking time, draining time, measuring tool, and water conditions the same for every trial. Report your averages with units of grams.

2 ANSWER WITH EVIDENCE

Use the passage

1. List the preparation steps, in order, for one brand's three test squares before they are placed in water.

2. After you remove a square from the water, what must you do before recording its wet mass? Include the timing.

3. What should you do if the water becomes cloudy or contains pieces of towel?

4. How do you calculate the average water mass for one towel brand?

3 YOUR TURN

Your own words

Write a six-step procedure for testing which of two sponge brands holds more water. Include same-size samples, a dry measurement, one soaking time, one draining time, a wet measurement, three trials for each brand, and a rule that makes the test fair.

ANSWER KEY

The Soak Test

GRADE 7 · RST.6-8.3

PART 1 · READ AND MARK

Underline each action you must perform. Circle every number or measurement, then number the main actions in the order you would do them so you can follow the procedure precisely. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	List the preparation steps, in order, for one brand's three test squares before they are placed in water.	**Cut three 10-centimeter-by-10-centimeter squares, keep them dry, weigh each square, and record each dry mass.**
2	After you remove a square from the water, what must you do before recording its wet mass? Include the timing.	**Hold the square above the tray for 10 seconds, then weigh it right away.**
3	What should you do if the water becomes cloudy or contains pieces of towel?	**Use fresh water.**
4	How do you calculate the average water mass for one towel brand?	**Subtract dry mass from wet mass for each of the three trials, add the three results, and divide by three. Report the average in grams.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

1. Cut three same-size pieces from each sponge brand. 2. Label the pieces and weigh each dry piece in grams. 3. Fill a tray to the same water level and use the same balance for every trial. 4. Use tongs to soak one sponge piece for 20 seconds. 5. Hold it above the tray for 10 seconds, then weigh it and record its wet mass. 6. Repeat steps 4 and 5 until all six pieces are tested, then compare the average water mass for each brand.

Accept answers that preserve the passage's order, quantities, and required measurements. For Part 3, accept any clearly numbered six-step procedure that includes all listed conditions and keeps all factors except sponge brand the same.