

Safe Science Moves

Identify the equipment and practices that make an investigation safer.

7.1.C “use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards;”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each piece of safety equipment, circle each safety practice, and write a small 1, 2, or 3 beside practices used before, during, or after the investigation.

Pond Water Investigation

- ① During a class investigation, students collect pond water from a schoolyard basin and examine it in the laboratory. Before leaving the classroom, they wear splash goggles, a lab apron, and closed-toe shoes. Long hair is tied back, and loose sleeves are secured. These choices protect eyes, skin, and clothing from splashes and keep hair or fabric away from equipment. The teacher checks that each student has the correct gear before the group begins collecting samples.
- ② At the basin, students stay with their assigned partner and remain inside the marked collection area. They carry sample jars upright and label each jar with the location and time. No one eats, drinks, or puts pond water near the mouth. If a student notices broken glass, a spill, or an insect sting, the student stops work and tells the teacher immediately. This quick report helps prevent injury and keeps the investigation organized for everyone.
- ③ Back in the laboratory, students place the jars on a tray before observing the water. They never taste a sample or smell it directly. To notice an odor, a student holds the jar away from the face and gently wafts vapors toward the nose. After using a hand lens, students return it to the tray, clean their work area, and wash their hands with soap and water. These practices limit contact with unknown materials and prevent contamination.

2

ANSWER WITH EVIDENCE

Use the passage

1

Which piece of safety equipment protects a student's eyes from splashes?

2

What should a student do after noticing broken glass, a spill, or an insect sting?

3

How should a student check the odor of a pond-water sample?

4

Name two safety steps students take after using a hand lens.

3

YOUR TURN

Your own words

Plan safe actions for a schoolyard soil investigation. In each row, write a different situation, an appropriate piece of safety equipment or practice, and how it lowers risk.

SITUATION	SAFETY EQUIPMENT OR PRACTICE	HOW IT LOWERS RISK

PART 1 • READ AND MARK

Underline each piece of safety equipment, circle each safety practice, and write a small 1, 2, or 3 beside practices used before, during, or after the investigation. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Which piece of safety equipment protects a student's eyes from splashes?	Splash goggles.
2	What should a student do after noticing broken glass, a spill, or an insect sting?	Stop work and tell the teacher immediately.
3	How should a student check the odor of a pond-water sample?	Hold the jar away from the face and gently waft vapors toward the nose, rather than smelling it directly.
4	Name two safety steps students take after using a hand lens.	Students return the hand lens to the tray, clean their work area, and wash their hands with soap and water. Any two are correct.

PART 3 • YOUR TURN (SAMPLE ANSWER)

SITUATION	SAFETY EQUIPMENT OR PRACTICE	HOW IT LOWERS RISK
Walking to the collection area	Stay with an assigned partner and inside the marked area	Helps prevent students from getting separated or entering unsafe places.
Collecting soil	Wear gloves and use a scoop	Limits contact with unknown materials and protects hands.
Finishing observations	Clean the workspace and wash hands with soap and water	Removes soil and helps prevent contamination.

Accept equivalent safety actions that fit the stated situation and clearly reduce a realistic risk. For the open response, each row should include a distinct situation, a suitable practice or item of equipment, and a reasonable explanation.