



Unit 1 • Scientific Learning: observing, testing and apparatus

Name _____ Class _____ Roll no. _____ Date _____ Marks _____ / 32

1 Key words

[3]

Fill in the blanks with words from the box. One word in the box is not needed. Each blank carries 0.5 mark.

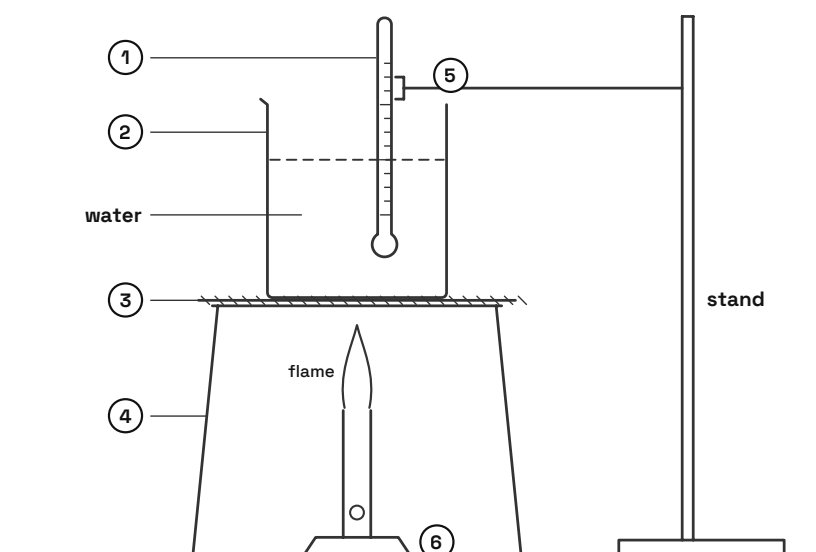
conclusion curiosity estimation experiment inquiry observation schematic

The wish to know about things is called _____. Finding out about things with our sense organs is called _____. Learning by doing is called an _____. Finding out the reason by asking, reading and searching is called _____. The final answer we reach is called a _____. A drawing made with simple lines is called a _____ diagram.

2 Label the diagram

[3]

The diagram shows how to boil water in a laboratory. Write the names of the parts numbered 1 to 6. Each carries 0.5 mark.



- | | |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |

3 Multiple choice

[5]

Choose the correct option for each of the following questions.

i. What do we need for observation?

[1]

- a. knowledge
c. sense organs

- b. experience
d. estimation



- ii.** Which property of a thing can't be found by observation? [1]
- a. taste b. roughness
c. warmth d. whether it burns
- iii.** There is some water in a bottle. Which tool would you use to find its volume? [1]
- a. a balance b. weights
c. a measuring cylinder d. a funnel
- iv.** What is true of a schematic diagram? [1]
- a. it is colored b. it is three-dimensional
c. it is shaded d. it is two-dimensional
- v.** What is the main reason for using glass apparatus to hold chemicals in a laboratory? [1]
- a. glass is strong
b. glass is easy to carry
c. glass is transparent and isn't harmed by most chemicals
d. glass heats up quickly

4 Correct or wrong? [4]

Write ✓ if the sentence is correct and X if it is wrong. Each carries 1 mark.

- i. Feeling a thing to find out how rough it is, is an example of observation. (_____)
- ii. We can find the exact amount of a thing by observation. (_____)
- iii. We need a modern laboratory for scientific learning. (_____)
- iv. A measuring cylinder is used to find how hot or cold a thing is. (_____)

5 Match the apparatus [2]

Match each apparatus in Column A with its use in Column B. Write the letter in the box. One use in Column B is not needed. Each match carries 0.5 mark.

Column A		Column B
1. Bunsen burner	☐	a. to hold up a beaker while it is heated
2. tripod stand	☐	b. to cool a vapor back into a liquid
3. physical balance	☐	c. to measure temperature
4. thermometer	☐	d. to measure mass
		e. to make heat

6 Very short answers [3]

Write very short answers to the following questions.

- a. Name the five sense organs. [1]

- b. Which sense organ tells us whether a thing is rough or smooth? [1]**



c. Why is most laboratory apparatus small?

[1]

7 Short answers

[10]

Write short answers to the following questions.

a. List any four properties of a thing that can only be found by testing and experimenting, not by observing.

[2]

b. To know the weight of a thing, we must weigh it. Is this observation, experiment or inquiry? Why?

[2]

c. Rina wants to know whether sugar dissolves in water. Can she find out just by looking at the sugar? What should she do?

[2]

d. Write any two reasons why schematic diagrams are important.

[2]



e. How does inquiry help us learn? Explain with one example.

[2]

8 Think

[2]

Think, then answer.

Agusha saw lamps burn with ghee and oil. She and her mother tried to light a lamp with milk, and it did not burn. Which ways of scientific learning did she use? What must she do next to find out why?

9 Activity: Things in your kitchen (Activity 1.1)

(not marked)

Look at water, salt and sugar in your kitchen. Taste only things you know are safe to eat. Fill in the table. For the state, write solid, liquid or gas.

Material	Color	Smell	Taste	State
water				
salt				
sugar				

Salt and sugar look almost the same. Which sense tells them apart?

