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Temperature and Its Measurement

ORAL QUESTIONS

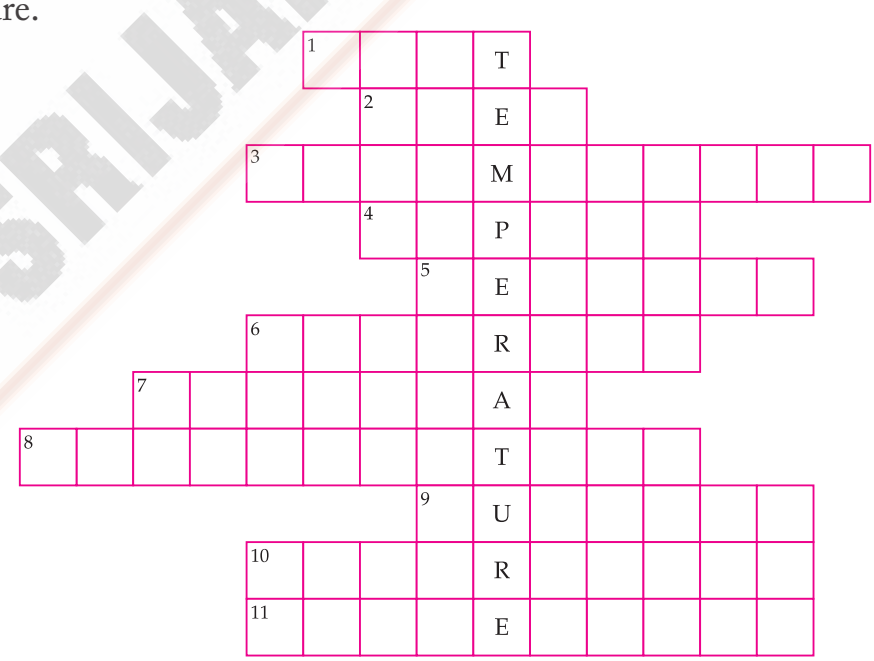
A. Answer these questions orally.

1. Heat is a form of energy. True or false?
2. All fuels produce heat energy on burning. True or false?
3. What is the freezing point of water?
4. What is the boiling point of water?
5. Name the device used to measure the temperature of a substance.

PUZZLE/QUIZ

B. Complete the word ladder with the help of given clues.

1. A form of energy which can cause hotness to a body.
2. A substance which can burn to produce a large amount of heat.
3. A device used to measure the temperature of an object.
4. Increase in the size of an object.
5. Unit for measuring temperature.
6. Decrease in the size of an object.
7. This thermometer is used to measure body temperature.
8. Change of a gaseous state of a material into its liquid state.
9. This energy is converted into heat energy, and then into electrical energy in a nuclear power plant.
10. This thermometer does not have a kink.
11. Another unit to measure temperature.



C. Pretend that you are a clinical thermometer. Now answer the following questions.

1. What are you used for?

2. What range of temperature can you measure?

3. Can we use you to measure the temperature of boiling water?

4. Why do you have a 'kink'?

5. Why should you be washed, cleaned and dried before every use?

6. Why should you be given two or three soft jerks before use?

CLASS TEST

D. MCQ–Tick (✓)the correct option.

1. In a thermal power station, this type of energy is transferred into electrical energy.
   (a) Light energy ☐ (b) Heat energy ☐
   (c) Mechanical energy ☐ (d) Nuclear energy ☐
2. By rubbing your palms, you transfer mechanical energy into
   (a) Light energy ☐ (b) Heat energy ☐
   (c) Electrical energy ☐ (d) Nuclear energy ☐
3. The degree of hotness of a body is called its
   (a) Thermometer ☐ (b) Celsius ☐
   (c) Temperature ☐ (d) Fahrenheit ☐
4. A laboratory thermometer is generally graduated form
   (a) O°C to 100°C ☐ (b) 10°C to 50°C ☐
   (c) 60°C to 50°C ☐ (d) 10°C to 100°C ☐

E. Short answer questions.

1. When is an object said to be 'cold'?

2. At what temperature do frozen foods stay safe and germ-free?

3. Name the scientists who made some prominent developments in the invention of a thermometer.

4. Who invented the clinical thermometer? When?

5. What is the normal human body temperature in Fahrenheit scale?

F. Long answer questions.

1. Describe the construction of a laboratory thermometer.

2. Describe the construction of a clinical thermometer.

3. What should you do if the thermometer breaks while using it?

4. List some examples of transformation of energy.

5. What changes can an object undergo on getting heated?

6. List the precautions you would observe while reading a laboratory thermometer.

7. What precautions would you observe while reading a clinical thermometer?

HOME ASSIGNMENT

G. Think and Answer.

1. Identify which of following thermometers is a clinical thermometer.

I

II

(a) What are the similarities in these thermometers?

(b) What do you think would have happened, if there was no kink in thermometer shown in Figure II?

(c) Can we use thermometer shown in Figure I to measure our body temperature? Why/why not?

2. Mayank accidentally broke the clinical thermometer while giving it jerks. What do you think he should do to collect the spilled mercury?

WORKSHEET

H. Give reasons for the following.

1. Some fruits and vegetables grow and ripen only in summers. Why?

2. To increase the shelf-life of food, milk and others, we either cook or boil our food items.

3. We should not laugh, talk or yawn while the clinical thermometer is inside our mouth.