

Chapter 8

Fire: Friend and Foe

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Comprehension Check

1. Mark the correct answer in each of the following.a

- (i) Early man was frightened of
(a) lightning and volcanoes.
(b) the damage caused by them.
(c) fire.
- (ii) (a) Fire is energy.
(b) Fire is heat and light.
(c) Fire is the result of a chemical reaction.

Answer

- (i) (c) fire.
- (ii) (c) Fire is the result of a chemical reaction.

2. From the boxes given below choose the one with the correct order of the following sentences.

- (i) That is fire.
(ii) A chemical reaction takes place.
(iii) Energy in the form of heat and light is released.
(iv) Oxygen combines with carbon and hydrogen.

(i) (ii) (iii) (iv)	(ii) (iii) (i) (iv)
(iv) (iii) (ii) (i)	(iv) (ii) (iii) (i)

Answer

(iv) (ii) (iii) (i)

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Working with the Text

Answer the following questions.

1. What do you understand by the 'flash point' of a fuel?

Answer

The particular temperature at which the fuel begins to burn is called the 'flash point' of a fuel.

2. (i) What are some common uses of fire?
(ii) In what sense is it a "bad master"?

Answer

(i) The common uses of fire are to cook food, warm our homes in winter, to generate electricity and many more.

(ii) Fire is "bad master" when it gets out of control. It can be dangerous and burn our houses, shops, vast forest areas and many more. It also kills and injures hundreds of people every year and causes destruction of huge properties.

3. Match items in Column A with those in Column B.

A	B
(i) fuel	– lighted matchstick
(ii) oxygen	– air
(iii) heat	– coal
	– burning coal
	– wood
	– smouldering paper
	– cooking gas

Answer

- a. fuel - coal, wood, cooking gas
b. oxygen - air
c. heat - lighted match stick, burning coal, smouldering

4. What are the three main ways in which a fire can be controlled or put out?

Answer

The three main ways in which a fire can be controlled or put out are :

- (i) By taking away the fuel. If the fire has no fuel to feed on, no burning can take place.
(ii) By preventing oxygen from reaching it
(iii) By bringing back the temperature below 'flash point' of the the fuel

5. Match the items in Box A with those in Box B

A

- (i) To burn paper or a piece of wood,
- (ii) Small fires can be put out
- (iii) When water is spread on fire,
- (iv) A carbon dioxide extinguisher is the best thing
- (v) Space left between buildings

B

- it absorbs heat from the burning material and
- lowers the temperature.
- reduces the risk of fire.
- with a damp blanket.
- we heat it before it catches fire.
- to put out an electrical fire.

Answer

- (i) To burn paper or a piece of wood - we heat it before it catches fire.
- (ii) Small fire can be put out - with a damp blanket.
- (iii) When water is spread on fire - it absorb the heat from the burning material and lowers the temperature.
- (iv) A carbon dioxide extinguisher is the best thing - to put out an electrical fire.
- (v) Space left between buildings - reduces the risk of fire.

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6. Why does a burning candle go out when you blow on it?

Answer

When we blow on candle, the hot air around the candle gets removed and it brings down the temperature of candle below the flash point. Thus, a candle goes out because no fuel can burn below its flash point.

7. Spraying water is not a good way of putting out an oil fire or an electrical fire. Why not?

Answer

Spraying water is not a good way of putting out an oil fire or an electrical fire. If water is sprayed onto an oil fire, the oil will float to the top of the water and continue to burn. This can be very dangerous because water can flow quickly carrying the burning oil with it and spreading the fire. Similarly, The person spraying water on an electrical fire might receive an electric shock and be killed.

8. What are some of the things you should do to prevent a fire at home and in the school?

Answer

Some of the things we should do to prevent a fire at home and in the school:

- (i) Precaution is better than cure. We should be alert about the use of inflammable substances and handle it with care.
- (ii) There is always possibility of catching fire in old buildings of home and school due to short circuits. Therefore, over loaded wires should be replaced with new ones and Fuse should be checked at regular interval.
- (ii) By spreading the knowledge about the handling of fuel, its flash point and about its protection after an accident.
- (iv) Fire extinguisher should be installed and old wiring must be replaced . Keeping the contact number of fire police on speed dial in case if little accident may happen.
- (v) Never taking the little accident of fire lightly as it may lead to greater one and finding a way out so that it may not happen in future. Not storing inflammable or combustible things like kerosene and petrol in our homes and in the school.

Working with Language

1. Read the following sentences.

To burn paper or a piece of wood, we heat it before it catches fire. We generally do it with a lighted match. Every fuel has a particular temperature at which it *burns*.

The verbs in italics are in the simple present tense. When we use it, we are not thinking only about the present. We use it to say that something happens all the time or repeatedly, or that something is true in general.

Find ten examples of verbs in the simple present tense in the text 'Fire: Friend and Foe' and write them down here. Do not include any passive verbs.

Answer

Combines
Comes
Catches
Blow
Has
Absorbs
Means
Allow
Lowers

Stops
Cuts
Burns

2. Fill in the blanks in the sentences below with words from the box. You may use a word more than once.

carbon cause fire smother

- (i) Gandhiji's life was devoted to the of justice and fair play.
- (ii) Have you insured your house against ?
- (iii) Diamond is nothing but in its pure form.
- (iv) If you put too much coal on the fire at once you will it.
- (v) Smoking is said to be the main of heart disease.
- (vi) When asked by an ambitious writer whether he should put some into his stories, Somerset Maugham murmured, "No, the other way round".
- (vii) She is a copy of her mother.
- (viii) It is often difficult to a yawn when you listen to a long speech on the value of time.

Answer

- (i) Gandhiji's life was devoted to the cause of justice and fair play.
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3. One word is italicised in each sentence. Find its opposite in the box and fill in the blanks.

spending shut destroy subtract increase

- (i) You were required to keep all the doors *open*, not
- (ii) PUPIL : What mark did I get in yesterday's Maths test?
TEACHER : You got what you get when you *add* five and five and
ten from the total.
- (iii) Run four kilometres a day to *preserve* your health. Run a lot more to
..... it.
- (iv) If a doctor advises a lean and lanky patient to *reduce* his weight further, be sure
he is doing it to his income.
- (v) The world is too much with us; late and soon, *Getting* and we lay
waste our powers.

– WORDSWORTH

Answer

- (i) You were required to keep all the doors open, not shut.
- (ii) Pupil : What mark did I get in yesterday's Maths test?
Teacher : You got what you get when you add five and five and subtract ten from
the total.
- (iii) Run four kilometres a day to preserve your health Run a lot to destroy it.
- (iv) If a doctor advises a lean and lanky patient to reduce his weight further, be sure
he is doing it to increase his income.
- (v) The world is too much with us; late and soon. Getting and spending we lay waste
our powers.

-WORDSWORTH

4. Use the words given in the box to fill in the blanks in the sentences below.

across along past through

- (i) The cat chased the mouse the lawn.
- (ii) We were not allowed to cross the frontier. So we drove it as far as we
could and came back happy.
- (iii) The horse went the winning post and had to be stopped with
difficulty.
- (iv) It is not difficult to see your plan. Anyone can see your motive.
- (v) Go the yellow line, then turn left. You will reach the post office in
five minutes.

Answer

- (i) The cat chased the mouse across the lawn.

(ii) We were not allowed to cross the frontier. So we drove along it as far we could and came back happy.

(iii) The horse went past the winning post and had to be stopped with difficulty.

(iv) It is not difficult to see through your plan. Any one can see your motive.

(v) Go along the yellow line, then turn left. You will reach the post office in five minutes.