

SUMMARY OF THE LESSON

Fire is a necessary evil. It is a boon as well as a curse. It has made our life comfortable, but we cannot touch it. It was the first great invention made by early man.

Early man didn't know how to make fire. But he must have seen the destructive power of fire. He must have watched lightning and volcanoes. He was afraid of it. What is fire? Fire is, in fact, the result of a chemical reaction. The air has oxygen, while fuels have carbon and hydrogen. When the two combine, energy is released in the form of heat and light. This is what we call fire.

Three things are needed to make fire—fuel, oxygen and heat. The common fuels are wood, coal, gas and petrol. Oxygen comes from the air. That is why, when we blow on burning paper, it bursts into flame. Fuel and oxygen do not make fire themselves. They need heat. A lighted match provides that heat. Every fuel begins to burn at a particular temperature.

Fire is a good servant but a bad master. It is useful as long as it is under control. The moment it becomes out of control, it spreads havoc. Every year thousands of homes and trees are damaged by fire. Forest fire destroys trees and kills people.

Fire can be put out in three ways. We can take away the fuel, or stop oxygen from reaching the burning material. The third way is to bring down the temperature below the flash point. Remove the hot air around the burning candle, and it will go out. Water also lowers the temperature and puts out the fire.

Some fires cannot be put out with water. Oil fire is one such example. The oil floats to the top of water and continues to burn as well as spread. Electrical fire also can't be controlled with water. It is fought by using carbon dioxide.

On the whole, we have learnt well to control fire and make good use of it in everyday life. Long ago there were no firemen. The people used to bring and throw bucketfuls of water on the flames. Now there are laws to stall fire extinguishers in every big building. There are fire brigades in every town. Trained fire fighters use their skills like cutting off power supply, pulling down weak walls and spraying water to bring fire under control. They are also trained to provide first aid to injured people.

Fire is still worshipped in many parts of the world. It helped early man to keep off animals and settle down in safe places.

TEXTBOOK QUESTIONS SOLVED

COMPREHENSION CHECK

(Page 118)

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

- (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.

Ans. (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)

Ans. (iv) (ii) (iii) (i)

WORKING WITH THE TEXT

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Answer the following questions:

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

Ans. The temperature at which a fuel begins to burn is called its 'flash point'.

2. (i) What are some common uses of fire?

(ii) In what sense is it a 'bad master'?

Ans. (i) Fire is commonly used to cook food, warm our homes in winter and to generate electricity.

(ii) Fire is a bad master, a dangerous enemy, if it goes out of control.

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

A

B

(i) Fuel	- lighted matchstick
(ii) Oxygen	- air
	- coal
(iii) Heat	- burning coal
	- wood
	- smouldering paper
	- cooking gas

Ans. (i) Fuel	- coal, wood, cooking gas.
(ii) Oxygen	- air
(iii) Heat	- lighted matchstick, burning coal, smouldering paper.

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

Ans. We can control fire in three ways by taking away the fuel, by preventing oxygen from reaching it, and by removing the heat.

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.

Ans. (i) To burn paper or a piece of wood, we heat it before it catches fire.

(ii) Small fires can be put out with a damp blanket.

(iii) When water is spread on fire, it absorbs 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.

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

Ans. When we blow on a burning candle, we remove the hot air burning the flame. Thus, the temperature falls below the flash point.

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

Ans. If water is sprayed on oil fire, oil floats on the top and continues to burn. Secondly, water can spread the fire.

If a person throws water on electrical fire, he might get 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?

Ans. Fire fighting things should be kept ready at home as well as in school. Electrical appliance should be properly wired, earthed and insulated.

WORKING WITH LANGUAGE

(Page 120)

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.

- Ans.** (i) Fire is the result of a chemical reaction.
 (ii) Wood, coal, cooking gas and petrol are some examples of fuel.
 (ii) Oxygen comes from the air.
 (iv) When you blow on the smouldering paper, it often bursts into flame.
 (v) To burn a piece of paper or wood we heat it before it catches fire.
 (vi) Every fuel has a particular temperature at which it begins to burn.

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.

- Ans.** (i) cause (ii) fire (iii) carbon (iv) smother
 (v) cause (vi) fire (vii) carbon (viii) smother

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.
Ans. (i) shut (ii) subtract (iii) destroy (iv) increase (v) spending

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 are 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. Any one can see your motive.
 (v) Go _____ the yellow line, then turn left. You will reach the post office in five minutes.

Ans. (i) across (ii) along (iii) past (iv) through (v) along.

SPEAKING AND WRITING

(Page 122)

1. Look at the following three units. First re-order the items in each unit to make a meaningful sentence. Next, re-order the sentences to make a meaningful paragraph. Use correct punctuation marks in the paragraph.

- (i) and eighteen fire tenders struggled/the fire began on Monday/to douse the blaze till morning.
 (ii) in a major fire/over 25 shops/were gutted.
 (iii) but property/was destroyed/worth several lakhs/no casualties were reported.

Ans. (i) The fire began on Monday and eighteen fire tenders struggled to douse the blaze till morning.

(ii) Over 25 shops were gutted in a major fire.

(iii) No casualties were reported, but property worth several lakhs was destroyed.

Paragraph: Over 25 shops were gutted in a major fire. The fire began on Monday and eighteen fire tenders struggled till morning to douse the blaze. No casualties were reported, but property worth several lakhs was destroyed.

□□□

★ Meadow Surprises

Lois Brandt Phillips

SUMMARY OF THE POEM

A greenfield, or a park has many surprises for us. But the charm or beauty can be noticed only by people with a keen eye and a sharp ear.

The poet's advice is that one should walk softly through green grass and try to enjoy the music of flowing stream. One can see a butterfly resting upon a flower and sipping its juice.

It is also possible that you may frighten a rabbit and make it run away. When you blow a dandelion flower, its fluffy parts fly in the air.

Greenfields have a number of houses, like burrows in the ground or birds' nests under tall grasses or amazing ant-hills. But you can discover them all only if you look for them kindly or lend your ears to them.

TEXTBOOK QUESTIONS SOLVED

WORKING WITH THE POEM

(Page 124)

1. Read the lines in which the following phrases occur. Then discuss with your partner the meaning of each phrase in its context.

- (i) velvet grass (ii) drinking straws
 (iii) meadow houses (iv) amazing mound
 (v) fuzzy head

Ans. (i) 'Walk softly through the velvet grass'. The word 'velvet' means soft and smooth. The grass in the grasslands or pastures is soft like velvet.

(ii) 'And unfold the drinking straws'. There are very thin and hollow stems of the flower. The butterfly draws nectar like juices through those straw.

(iii) 'Explore the meadow houses.' The burrows or holes made in the ground by hares, and other animals.

(iv) 'The ant's amazing mound'. The ant makes a wonderful small hill of mud.

(v) 'A dandelion whose fuzzy head'. The soft fibre like head of dandelion flowers.

2. Which line in the poem suggests that you need a keen eye and a sharp ear to enjoy a meadow? Read aloud the stanza that contains this line.

Ans. Read yourself the last stanza of the poem aloud.

3. Find pictures of the kinds of birds, insects and scenes mentioned in the poem.

Ans. Do yourself.

4. Watch a tree or a plant, or walk across a field or park at the same time everyday for a week. Keep a diary of what you see and hear. At the end of the week, write a short paragraph or a poem about your experiences. Put your writing up on the class bulletin board.

Ans. Do yourself.

Read the following poem about the world of nature, which is as busy as the world of human beings.

BUSY WORLD

Bees are buzzing, frogs are hopping,
Moles are digging. There's no stopping

Vines from climbing, grass from growing,
Birds from singing, winds from blowing,

Buds from blooming. Bees are humming,
Sunbeams dancing, raindrops drumming.

All the world is whirling, dizzy,
Summertime is very busy!

—FRANCES GORMAN RISSER

Ans. Read for pleasure.