**Chapter 9**

**Fuels**

1. Take a look in your house and make a list of different fuel used in your house.
2. The student should carry on survey of the various automobiles running around them and note down the fuels used in them.
3. Geeta visited a village, when she visited house of some villagers she found that most of them were using gas coming from a plant at the back of their house instead of wood or cow dung as fuel for cooking. Name the plant responsible for the gas. Find out the material used for the production of gas.
4. Name the free source of energy available to everyone. What are the different purposes it is used for?
5. Define the following terms
6. Fuel
7. Renewable source of energy
8. Non –renewable source of energy
9. Fossil fuel
10. Every year during the winter months the pollution level is very high in Delhi. The government advises people to use car pool or asks people having even numbers on one day and odd number on another day. Suggest why does government advises people to do so.
11. Write a paragraph on different ways by which energy can be conserved.
12. Correct the given statements
13. Fossil fuels are available in unlimited quantity and will last for a very long time.
14. Solar energy is a non-renewable source of energy.
15. CNG powered vehicles causes more air pollution.
16. Kerosene and cow dung are cleaner fuels.
17. Powerhouses often burn wood to convert water to steam which is used to operate turbines.
18. Train engines are now-a-days are run by steam produced by burning of coal.
19. Buses, cars run on highly refined kerosene based fuel known as Aviation Turbine Fuel.
20. Coal, petroleum are renewable source of energy.
21. We all do not need to take adequate steps to face challenges and problems posed by the fuel crisis.
22. What is ash? What is it used for?
23. Why are people looking for alternative of fossil fuels?
24. How are petrol, diesel and kerosene obtained?
25. Name the three fossil fuels. How are fossil fuel formed?
26. What is hydro-electricity?
27. Name the following
28. 2 domestic fuels
29. 2 fuels used for transportation
30. Fuel used for aeroplane
31. 2 renewable source of energy
32. 2 non-renewable source of energy
33. 2 gaseous fuel
34. Complete the given statements
35. The waste matter of animals and plants is known as \_\_\_\_\_\_\_.
36. Efforts are now being made to develop vehicles which can run on \_\_\_\_\_\_\_\_\_.
37. \_\_\_\_\_\_\_\_ fuels are major cause of environmental pollution.
38. \_\_\_\_\_\_\_\_\_ can be thought of as a fuel of our body.
39. \_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_ are examples of gaseous fuel.
40. Fuels produce\_\_\_\_\_\_\_\_\_ on burning.
41. LPG and PNG are \_\_\_\_\_\_\_\_\_\_\_\_\_ that are convenient to use and more efficient.
42. \_\_\_\_\_\_\_\_\_\_ causes less pollution and causes less harm to the health of humans and animals.
43. Name the 2 energy sources other than water that are being used to produce electricity.
44. How are renewable sources of energy different from non-renewable sources of energy?
45. Complete the given table

|  |  |  |  |
| --- | --- | --- | --- |
| S.N | Name of the Object | Source of energy | Renewable/Non-renewable |
| 1 | Solar cooker |  |  |
| 2 | Truck |  |  |
| 3 | Train engine |  |  |
| 4 | Wind mill |  |  |

1. Take walk in your school and make a list of things that are using any form fuel. Write the name of the fuel being used and classify the fuel as renewable and non-renewable.
2. Write a slogan to conserve energy.
3. How is crude-oil formed in nature?
4. Why were steam engines replaced by other type of engines?
5. Why are gaseous fuels preferred over the cow dung, coal and kerosene as domestic fuels?
6. Why CNG is used more as fuel in vehicles now-a-days?

**Chapter 10**

**Air**

1. Make a model to represent the causes of air pollution
2. Collect the information about AQI for 15 days and then make a table stating in front of each day whether it is good, moderate or harmful.
3. When Ravi walked into a room in the month of May and looked up, he found that blades of the fan were very dirty. Suggest what could be the reason for the blade being dirty.
4. Now-a- days there was in the news that during the lockdown the hole in the ozone layer has disappeared. How do you think this good news for all living beings?
5. The student should take a potted plant and cover the plant with transparent plastic bag and keep it in sunlight and also water it daily. He should observe the plant closely for few days. Note down if there was any change after 6-7 days and also state the reason for it.
6. Which component of air is responsible for humidity of air?
7. I was standing on a busy roadside waiting for my friends. I suddenly felt irritation in my eyes and throat. Explain the reason for the irritation.
8. Now-a-days due to widespread of pandemic Covid-19 all of us are advised to wear mask whenever we go out, why?
9. Correct the given statements
10. Carbon monoxide and oxides of nitrogen are solid pollutants of air?
11. The acid rain increases the fertility of the soil.
12. Presence of oxygen in the air causes the green house effect.
13. Garbage should be burnt to prevent pollution.
14. We should prefer coal over LPG or biogas as cooking fuel.
15. Air is mixture of gases made up mainly of oxygen.
16. All the animals, including human beings do not need oxygen to live.
17. Plants consume oxygen during photosynthesis and give out carbon dioxide.
18. Plants use nitrate and ammonium salts to make carbohydrate which are essential for plant growth.
19. Complete the given flow chart

Boy is inhaling air

Carbon dioxide

Plant-Photosynthesis

1. How does nitrogen in the air reach the plants?
2. ‘Our atmosphere also acts as a shield-very much like an umbrella.’ Justify.
3. Complete the given statements
4. The ultraviolet rays can cause\_\_\_\_\_\_\_ and\_\_\_\_\_\_\_\_\_ diseases in animals.
5. \_\_\_\_\_\_\_\_\_ gas, present in the air is also essential for the growth in plants.
6. The \_\_\_\_\_\_\_ present in soil help to convert the atmospheric nitrogen into nitrate and ammonium salts.
7. Pollutants like smoke and dust are \_\_\_\_\_\_\_\_\_\_\_\_ of air.
8. Breathing of polluted air may cause\_\_\_\_\_\_\_\_\_\_\_\_\_\_, cough and headache.
9. \_\_\_\_\_\_\_\_ can also damage monuments made of marble.
10. Planting of \_\_\_\_\_\_ helps to reduce green house effect and maintain earth’s \_\_\_\_\_\_\_\_\_\_ at desirable level.
11. Powerhouse and factories should construct \_\_\_\_\_\_\_\_\_\_\_ so smoke is realised high up in the atmosphere.
12. List 3 ways that can reduce the air pollution.
13. How does air get polluted?
14. What causes the green house effect?
15. State the effect of global warming on the environment.
16. What is polluted air?
17. Give 2 examples of each
18. Solid pollutants
19. Gaseous pollutants
20. What are the ill-effects of acid rain?