

CHAPTER # 01
OUR ENVIRONMENT

Topic-1

One Sentence Answer

1. What is **Environment**?
2. What is our environment consists of?
3. Define **Living Things**.
4. What do you mean by **Non-Living Things**?
5. What does human need for his survival?
6. Why does human being use soil?
7. Which animals use water as their habitat?

Short Questions:

1. Describe shortly the relationship between living and non-living things.
2. Give 5 examples of living and non-living things.
3. What are the elements needed for the survival of human being?
4. In which things are human being depend on?
5. What are the habitats of animals?
6. Which sorts of animals live in soil?
7. Name the animals that live in water.
8. How can plants make their food? Write in two sentences.
9. How do the plants survive?
10. Define the habitat of water lily & hyacinth.
11. What is an ecosystem?

Fill in the blanks

1. Living things and non-living things are the classifications of _____.
2. Air is essential for human being to _____.
3. Soil is needed by human being to _____ crops and _____ is needed to build their shelter.
4. For _____, other animals depend on non-living things.
5. _____ live in soil.
6. _____ live in under water.
7. Sunlight, water and _____ are used by plants to make their own food.
8. Ecosystem refers to a system where living and non-living things exist and _____.

Broad Questions

1. What are the relationships between living and non-living things? Describe it.
2. Give an example of what are the similarities between human beings and animals?
3. Make a list of some animals whose life and food style are different from each other.
4. How can plants survive? What is their habitat?
5. Define ecosystem with examples.

LEARNING MATERIALS

1. Write down the names of the plants/animals according to the habitats:

Soil

- 1.
- 2.
- 3.
- 4.
- 5.

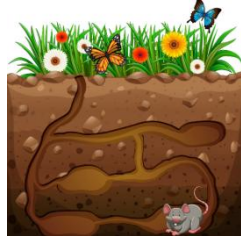
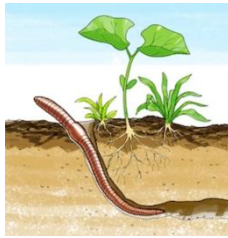
Water

- 1.
- 2.
- 3.

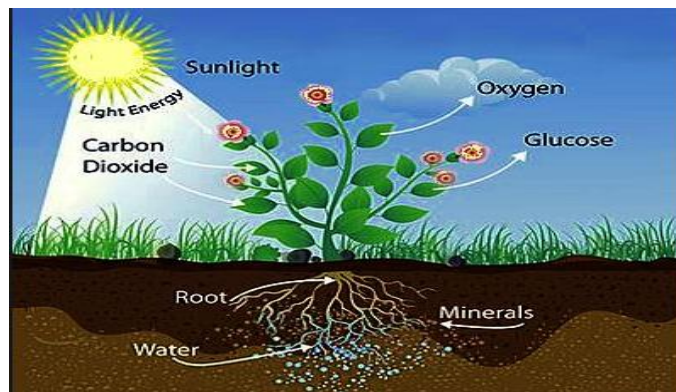
Land

- 1.
- 2.
- 3.
- 4.
- 5.

2. Name the animals & plants who live in soil & water:



3. Describe the picture. How can they make their own food?



- 1.
- 2.
- 3.
- 4.

Topic-2

One Sentence Answer

1. How do plants get Oxygen?
2. Which parts of plants provide us with energy as food?
3. Which animals use plants for their shelter?
4. Where do birds make their nests?
5. Which animals help in pollination?

Short Question:

1. How do the animals collect their food? Write down shortly.
2. Define shortly "the habitat of animals".
3. What is pollination?
4. How do the animals become fertilizers after death?
5. Write the definition of "Seed dispersal".

Fill in the blanks:

1. The plants and animals ___ on each other in the environment.
2. Plants give off ___ and the living things use it to breathe.
3. Besides oxygen plants also give us _____.
4. Birds make their ___ on trees.
5. Animals provide plants with _____ and _____.
6. _____ helps plants to create new colonies.
7. Pollination helps plants to make _____.

Broad Question

1. What is pollination? How do the plants depend on animals for making food & seed dispersal?
2. How do the plants and animals depend on each other?

Topic-3

One Sentence Answer

1. Write the definition of **Energy**?
2. From where do animals get energy?
3. How does a plant produce its own food?
4. Draw a food chain.
5. Define **Food Chain**.
6. Define **Food Web**.
7. What things make a food web?

Short Question:

1. Define the significance of energy.
2. What is food chain?
3. Make difference between food chain and food web.

Fill in the blanks:

1. Living things need ___ for survival.
2. Sun provides _____ energy.
3. From food _____ get energy.

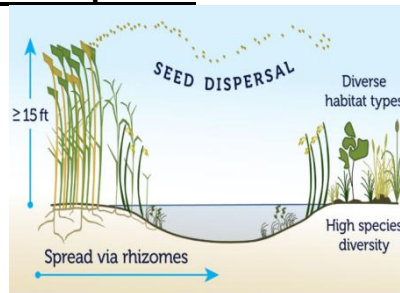
4. In a food chain, energy is passed from a plant to ____.
5. ____ is the path of food energy from plants to animals in an ecosystem.
6. Food chain begins with ____.
7. Several food chains make ____ when they become connected together.

Broad Question

1. What are the similarities of food chain and food web? Give examples.

LEARNING MATERIALS

1. Discover the way of seed dispersal:



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|----|
| 1. |
| 2. |
| 3. |

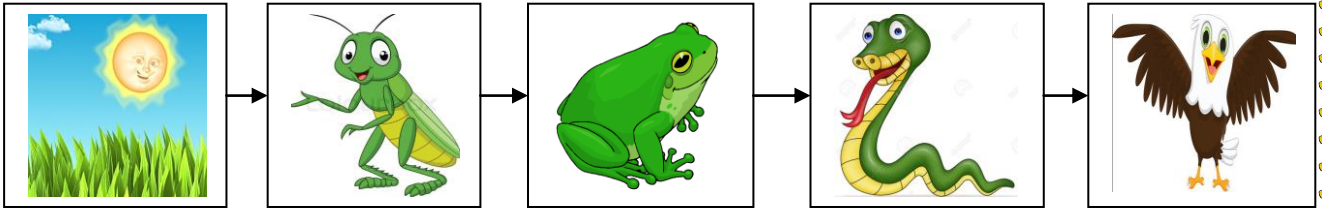
2. Show the another process of seed dispersal with a diagram:

3. Explain the mutual dependence between plants and animals:



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|----|
| 1. |
| 2. |
| 3. |
| 4. |

4. Relate the food chain

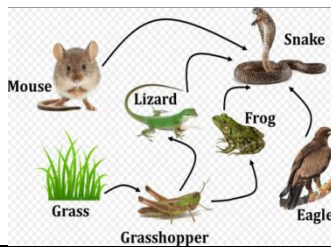


| |
|----|
| 1. |
| 2. |
| 3. |
| 4. |

5. Draw an other food chain

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6. Describe the food web



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|----|
| 1. |
| 2. |
| 3. |
| 4. |

7. Write down the definition of selected words and short description:

ECOSYSTEM

1. _____
2. _____
3. _____

POLLINATION

1. _____
2. _____
3. _____

**SEED
DISPERSAL**

1. _____
2. _____
3. _____

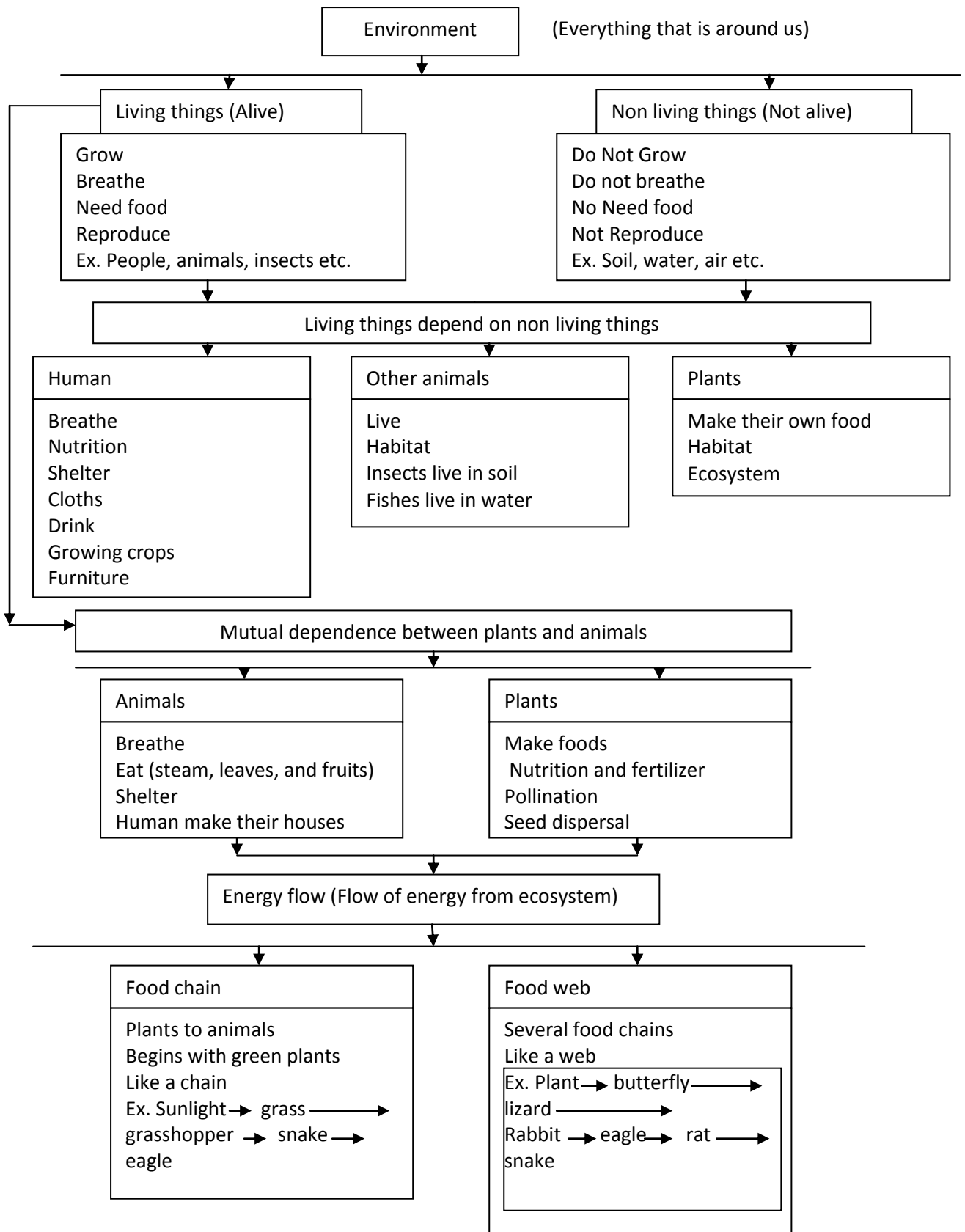
FOOD CHAIN

1. _____
2. _____
3. _____

FOOD WEB

1. _____
2. _____
3. _____

Flow Chart



CHAPTER # 02 ENVIRONMENTAL POLLUTION

TOPIC 1 POLLUTION IN OUR ENVIRONMENT

One Sentence Answer

1. What is **Environment**?
2. Define **Pollution**.
3. What do you mean by “**Environmental Pollution**”?
4. What kind of pollutions are there around us?
5. What is **Industrialization**?
6. Give the definition of “**Fossil Fuel**”.
7. What is **Water Borne Disease**?
8. Why do many animals get extinct?

Short Questions

1. Define environment pollution.
2. Make a list of causes of environmental pollution.
3. Write two examples of environmental pollution.
4. Discuss about a pollution that you have seen in your surroundings.
5. What is one of the biggest problems nowadays?
6. Explain industrialization.
7. What are the effects of environmental pollution?

Fill in the blanks

1. ____ is used in various ways to survive.
2. During environmental pollution ____ changes are occurred.
3. Environment gets polluted when harmful or ____ substances are added into it.
4. ____ is one of the main causes of pollution.
5. The fundamental cause of pollution is ____.
6. People are destroying environment to meet their ____.
7. Pollution is causing a lot of ____ to environment.
8. Due to environmental pollution many animals get ____.
9. Average temperature of the Earth is ____.
10. Many ____ continue to melt and results in sea level rise.

Board Question

1. Draw a picture of any type of pollution and explain its negative impacts.
2. Elaborate their causes and sources of environmental pollution.
3. Demonstrate the effects of environmental pollution.

TOPIC 2

One Sentence Answer

1. What emits from vehicles and industries?
2. Write down the names of two diseases caused by air pollution.
3. What type of pollution is responsible for the death of aquatic animals?
4. What decreases soil's fertility?
5. 'Playing songs in high volume' is one of the causes of what type of pollution?

Fill in the blanks

1. Harmful gases, dust particles, smoke or odour causes ___ pollution.
2. ___ And ___ are the effects of air pollution.
3. Air pollution makes people sick with ___ and ___.
4. Harmful things from sewage, waste water cause ___ pollution.
5. Water pollution can cause death of ___ animals.
6. Use of pesticides and fertilizer in agriculture causes ___ pollution.
7. People may get sick by taking foods grown in ___ soil.
8. Using big machinery in industries causes ___ pollution.
9. Depression, hearing loss, sleep disruption are the results of ___ pollution.
10. We can prevent noise pollution turning the ___ down.

AIR POLLUTION

One Sentence Answer

1. Define air pollution.
2. What is acid rain?
3. Write the names of two diseases caused by air pollution.
4. Define global warming.

Board Question

1. What are the causes of air pollution? Describe its effects.
2. Write the prevention ways of the air pollution.
3. How we can save our air from getting polluted? Give some suggestions

WATER POLLUTION

One Sentence Answer

1. Define water pollution.
2. What are the causes of water pollution?
3. Define the effects of water pollution.

Board Question

1. Extend your idea about how can we prevent water pollution?
2. Show us the causes of water pollution.

SOIL POLLUTION

One Sentence Answer

1. Define soil pollution.
2. Show a chart of the effects of soil pollution.
3. Make a list of the causes of the soil pollution.

Board Question

1. Develop your idea with the cause and effects of soil pollution.
2. Write about the prevention ways of the soil pollution.

NOISE POLLUTION

One Sentence Answer

1. What is noise pollution?
2. Give some examples on noise pollution.
3. Make a list of diseases caused by noise pollution.

Board Question

1. Develop your idea that how can we prevent noise pollution in our area?

TOPIC 3 CONSERVATION OF OUR ENVIRONMENT

Fill in the blanks:

1. We have to reduce the use of ____ to conserve the environment.
2. We should ____ instead of using a car.
3. We have to follow ____ to conserve natural resources.
4. We should never throw ____ into rivers and lakes.
5. Raising ____ is one of the best ways to conserve our environment.

One Sentence Answer

1. What is **Environmental Conservation**?
2. What is **Reusing**?
3. What do you mean by **Reducing**?
4. Define **Recycling**.
5. Where should we dump garbage?
6. What is **Public Awareness**?

Short Questions

1. Make a table of the types of pollution with examples.
2. How can we conserve our environment?
3. What is 3R's?

Board Question

1. Summarize the problems of pollution with some steps that can be taken by us.

LEARNING METERIALS

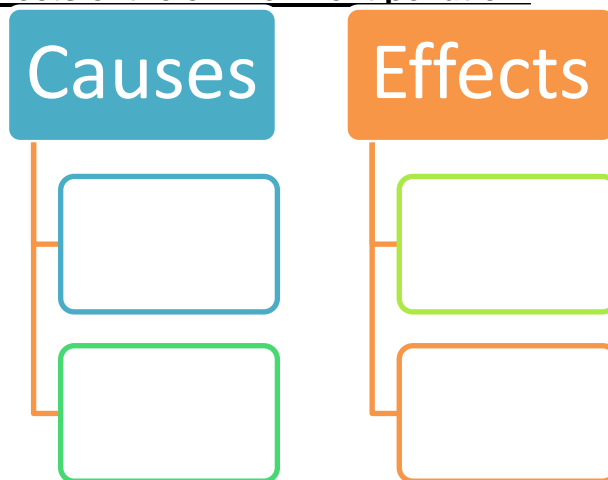
1. List the causes of the environmental pollution in your own words

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2. List the effects of the environmental pollution in your own words

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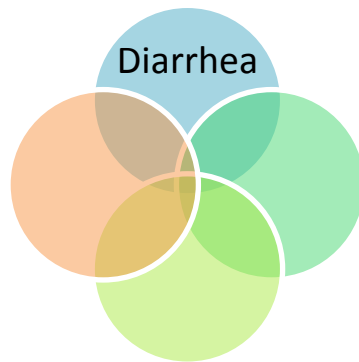
3. Cause and effects of the environment pollution:



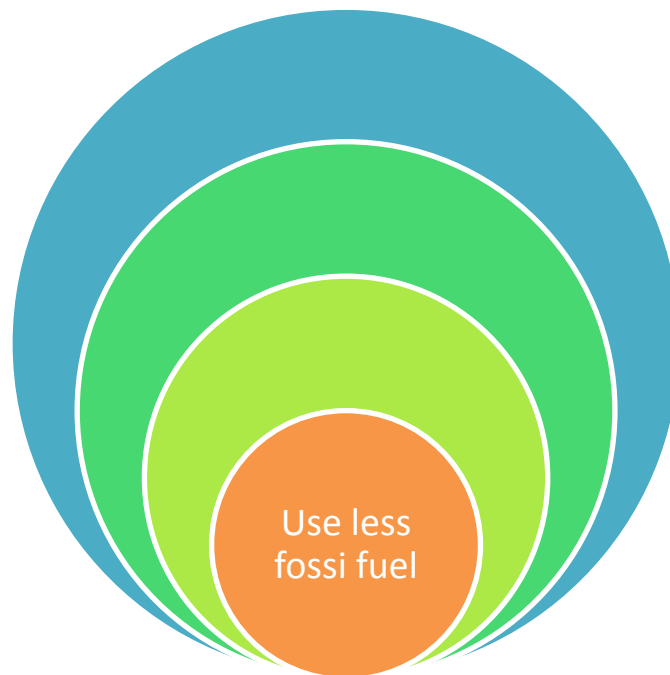
4. Ways to prevent air pollution are:

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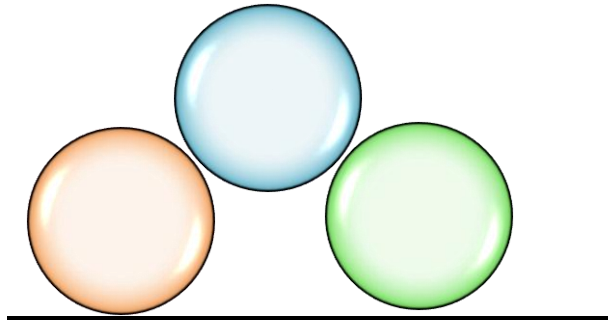
5. Name the diseases that can be attacked by water pollution.



6. Ways to conserve our environment:



7. Use of 3R's:




8. Application of 3R's in our daily conservations

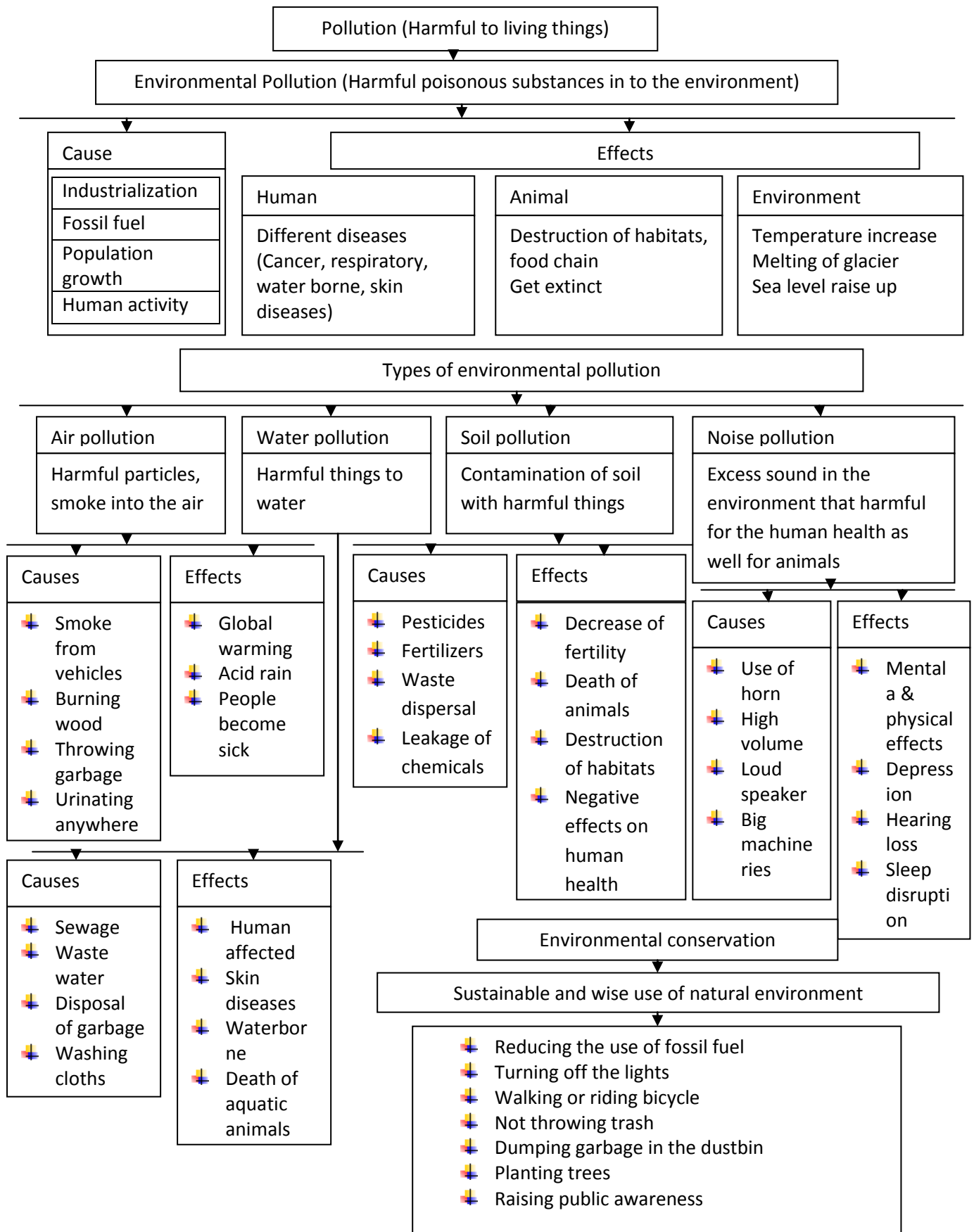
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9. Describe the pictures;

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| <p>acidic gases after divide and are water vapour in atmosphere</p> <p>gases carried by the wind</p> <p>gases dissolve in moisture to form acid rain</p> <p>acid rain kills plants, pollutes rivers and streams, and erodes structures.</p> | |
| <p>NOISE POLLUTION</p> | |
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|  <p>Air and water pollution in villages</p> <p>Go Home</p> <p>Hi-Menu</p> <p>Back</p> <p>Next</p> <p>Plants clear the air and therefore the air is not polluted. But water in seas, rivers or lakes often gets polluted because</p> | |

Flow Chart



CHAPTER # 03
WATER FOR LIFE

Topic- (Water for Plants and Animals)

One Line Questions:

1. What is essential for living things?
2. Give two examples of man-made elements?
3. Write down two names of natural sources of water.
4. What is the percentage of water in a plant body?
5. What do plants use to absorb nutrients?
6. What is the amount of water in human body?
7. How does plant take water?
8. What helps to digest Food?
9. Who helps the body to absorb the nutrients?
10. What is essential to maintain the proper temperature?

Fill in the blanks:

1. We are _____ by water.
2. We can get water from _____ sources such as rainfall, river.
3. We can get water from _____ sources Such as lake, pond, well etc.
4. Water is _____ for living things.
5. Plants _____ water for their life.
6. Plants use water to make their _____.
7. Plants need water for the collection of _____ from the soil.
8. Water plays an _____ role of cooling the plants in extreme heat.
9. _____ body is made up of about 60-70% of water.
10. Water helps to _____ food.
11. Water helps to carry nutrients to all _____ of the body.
12. Water is essential to maintain the _____ temperature of our body.

Short Questions:

1. Make a list of the natural sources of water.
2. How do you mean by man-made sources of water? Give examples.
3. How much water do plants contain in their bodies?
4. How does plant take water?

Broad Questions:

1. Why do plants need water?
2. Explain why do animals need water?

LEARNING MATERIALS

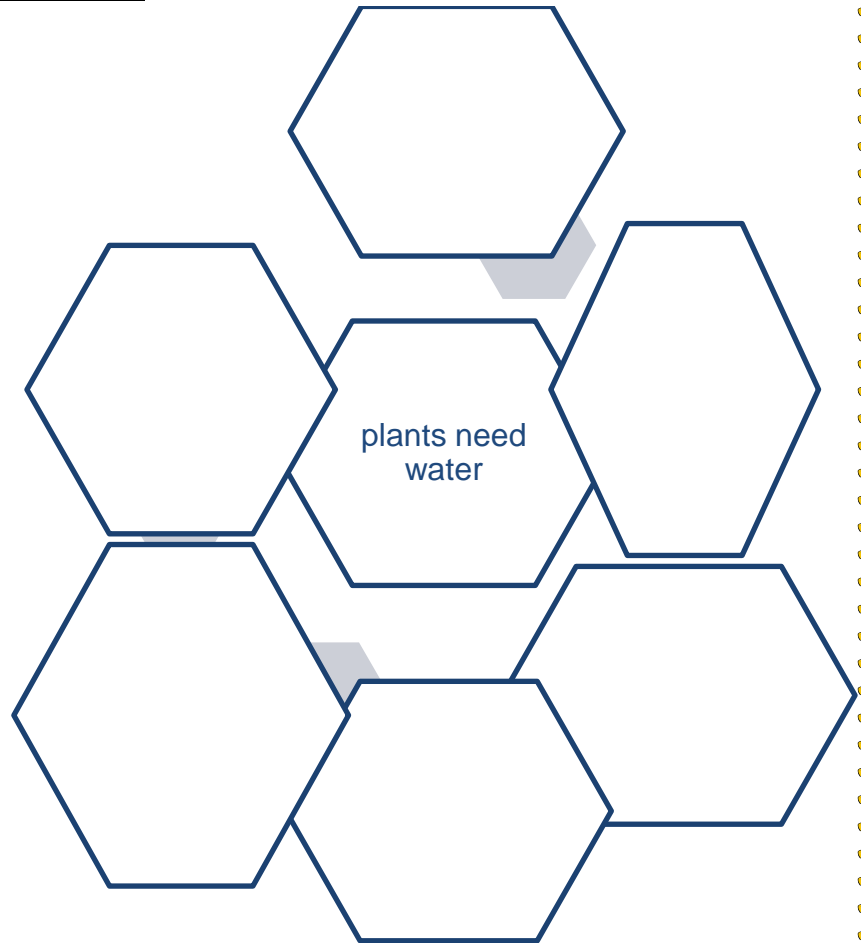
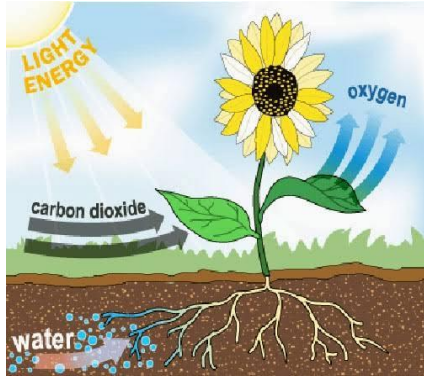
1. Make a list on the uses of water for human-beings

Uses of water



1. We need water to survive

2. Write the needs of water for plants -



Topic— (Changing state of water, Water cycle)

One Line Questions:

1. What is dew?
2. How are does formed?
3. What is called the change of state from a gas to liquid?
4. The change of state from a liquid to a gas is called what?
5. What happens through evaporation process?
6. What are the three states of water?
7. What happen if water is heated?
8. What happen if water is cooled?
9. The way that water moves all around the earth as it changes state is called what?
10. What does water vapor in the air turn in to by cooling?
11. In which process does water vapor turn in to cloud?
12. What becomes ground water?

Fill in the blanks:

1. The drops of water deposited on the grasses and trees at night are called_____.
2. The change of state from a gas to _____ is called condensation.
3. If water is heated, it turns into_____.
4. Water is changed due to heating and_____.
5. If ice is heated, it changes in to_____.
6. If heat is added to water, it_____.
7. When water is cooled, it _____ and becomes_____.
8. The way that water_____ all around the _____ as it changes state is called the water cycle.
9. Tiny droplets accumulate and form_____.
10. Large water droplets fall back to the earth as_____.
11. Water _____ in to the ground becomes ground water.

Short Questions:

1. Define dew?
2. What is called condensation?
3. What is evaporation?
4. Why does water evaporate?
5. How many states are there of water? What are they
6. What is water cycle?
7. How is cloud formed?
8. What is rainfall?
9. In which process does water vapor turn into cloud?

Board Questions:

1. How is the water droplets formed? Explain it.
2. Why does the surface of the glass with ice water get wet? Describe it.
3. Why are dew and water droplets on the surface of a glass with ice water alike? Explain.
4. How can we explain that water is in the air?
5. Explain the process of water cycle.

LEARNING METERIALS

1. Show the observation from this figure:



Glass-A

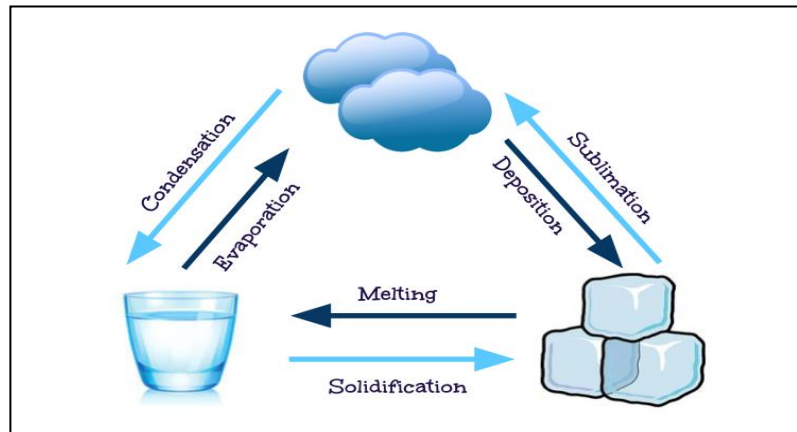


Glass-B

Observation between two glasses

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2. Write how water changes one states to another:



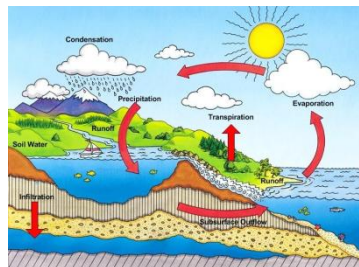
Changes of states (Water)

3. Explain what happened to the inner side of the bag:



What will you observe inside the bag?

4. Explain the process of water cycle:



Process of water cycle

Topic—Water pollution

One Line Questions:

1. What is called the addition of harmful substances to water?
2. What is harmful for living things?
3. What is mainly caused of water pollution?
4. Write down two causes of water pollution.
5. What are the effects of water pollution?
6. What happens when we drink contaminated water?
7. What is the way to prevent water pollution?
8. What kind of pollution is responsible for diarrhea or cholera?
9. Where should we not throw trash?

Fill in the blank

1. Water pollution is the _____ of harmful substances to water.
2. Water pollution is harmful for _____ things.
3. Water pollution is mainly caused by human _____.
4. Water pollution causes death of _____ animals and disruption of water _____ chains.
5. Humans are _____ by water pollution.
6. We can prevent water pollution by _____ the use of pesticides and _____ fertilizer in agricultures.
7. We should not _____ chemicals and _____ down the sink drain or the toilet.
8. Picking up _____ at the beach, river or canal helps keeping water _____.

Short Questions:

1. What is water pollution?
2. Write down the names of three waterborne diseases
3. Give examples of two causes of water pollution.
4. What are the effects of water pollution?

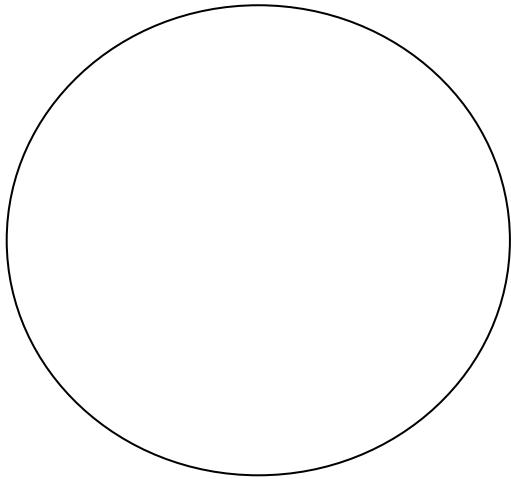
Board Questions:

1. Make a list of the causes of water pollution.
2. Elaborate the effects of water pollution.
3. How can we prevent water pollution?

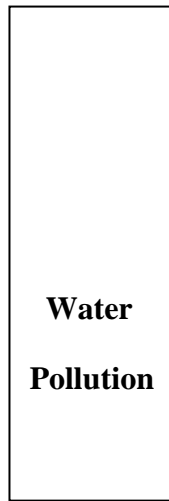
LEARNING METERIALS

1. **Write the causes in the circle and the effects in the triangle:**

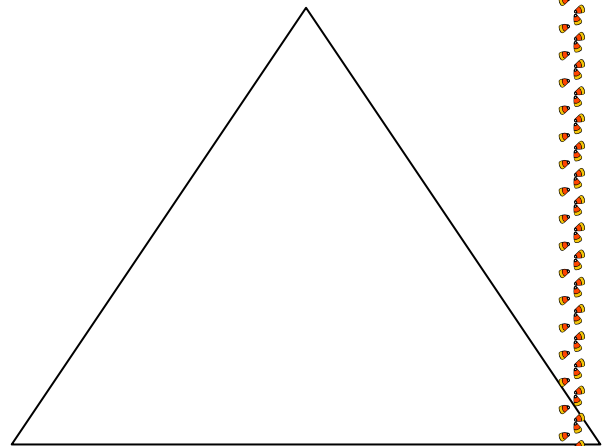
| | | |
|--|---------------------------------------|---|
| Causes death of aquatic animals | Human activity | Disruption of water food chain |
| Insecticide in agriculture waste water | Chemicals from factories | trash from household |
| Humans are also affected by water pollution | Bathing cattle washing clothes | Waterborne diseases diarrhoea or cholera |



Causes



**Water
Pollution**



Effects

Topic-4 (Safe water)

One Line Questions:

1. What is called the water which is not harmful for human beings?
2. What is the necessity of safe water?
3. What is called the process of making water drinkable and safe for human use?
4. Give four ways to get safe water from unsafe fresh water?
5. What is the process of filtering water with filter?
6. What can be removed generally by filtration process?
7. What is the good way to remove suspended particles like mud, sand, etc from water?
8. How many minutes water should boil to make it germ free?
9. What is the process of purifying water by using sufficient amount of chemicals like alum, bleaching power, water purifying tablet?
10. What is the best way to purify water during cyclone?
11. Which water can't be purified by boiling?

Fill in the blanks:

1. The _____ water is water that will not harm people.
2. Some fresh water is _____ to drink for people.
3. _____ is the process of making water drinkable and safe for human use.
4. _____ is the process of filtering water with filter.
5. Water may be _____ by filtration through a thin cloth or filter.
6. Sedimentation is the good way to remove suspended _____ like mud and _____ from water.
7. _____ is one of good ways to make it free from germs.
8. _____ minutes water should boil to make it germ free.
9. Sometimes we can purify the water by using prescribed amount of _____.
10. _____ water can't be purified by boiling.

Short Questions:

1. What do you mean by safe water?
2. Illustrate the necessity of safe water.
3. What is called water purification?
4. Define sedimentation.
5. What is the best way to get safe water free from germ?
6. How many minutes should water boil to make it free from germs?
7. Write down the names of three chemicals used for purifying water.
8. Which water can't be purified by boiling?

Broad questions:

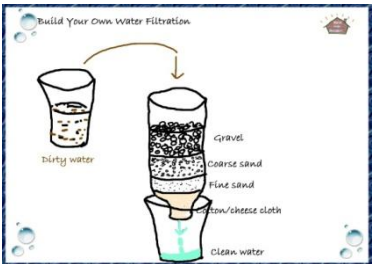
1. How can we get safe water from pond's water?
2. Which way is the most acceptable for making water fully safe? Why?
3. What is the process of filtration? Describe it.
4. Explain the four ways to make water safe.

LEARNING MATERIALS

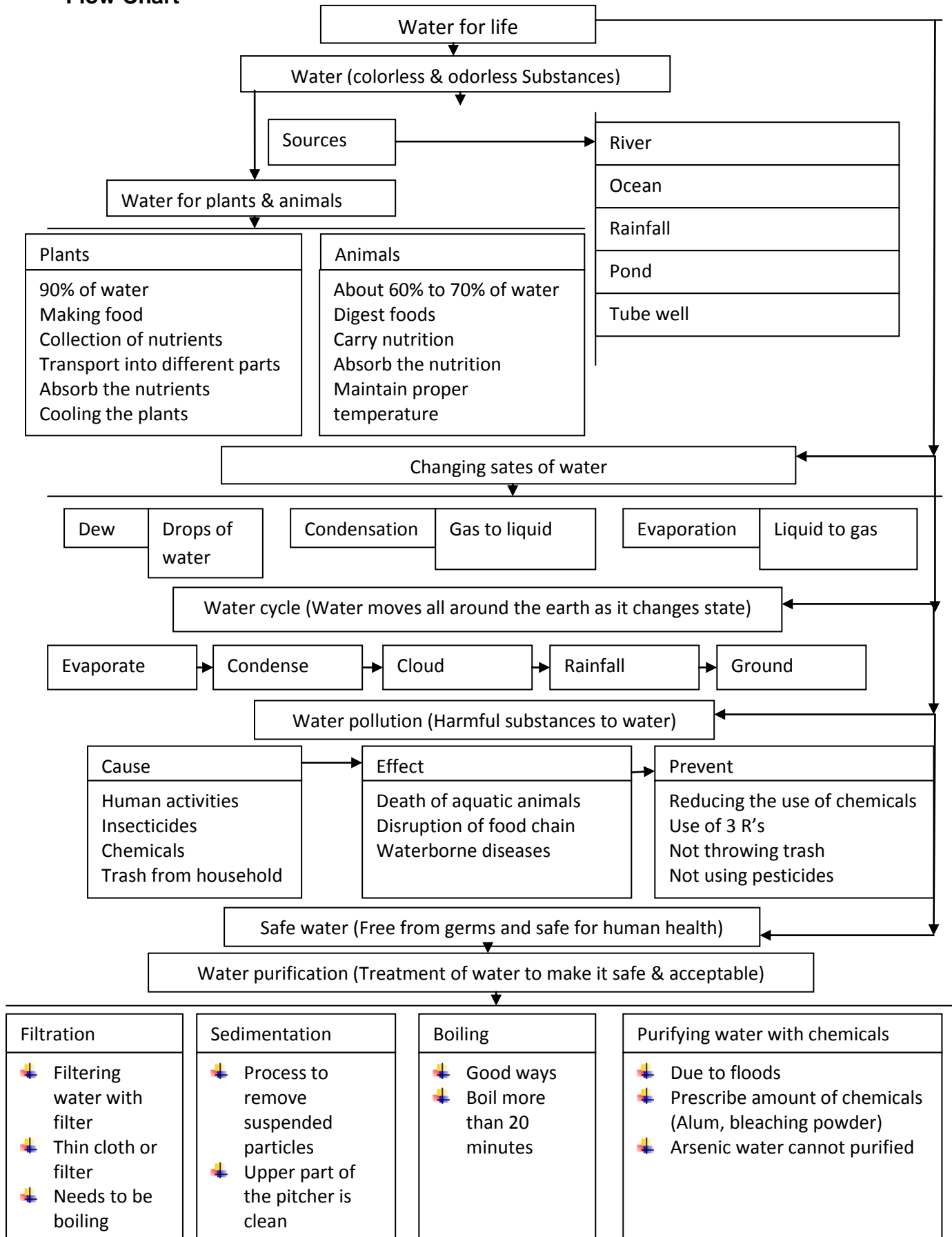
1. Write the names of the process and explain it:

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|---|--|
|  | <p><u>Explain the process</u></p> |
|---|--|

2. Observe the dirty water and explain your observation:

| | |
|---|-----------------------------------|
|  | <p>Explain Observation</p> |
|---|-----------------------------------|

Flow Chart



Filtration

- Filtering water with filter
- Thin cloth or filter
- Needs to be boiling

Sedimentation

- Process to remove suspended particles
- Upper part of the pitcher is clean

Boiling

- Good ways
- Boil more than 20 minutes

Purifying water with chemicals

- Due to floods
- Prescribe amount of chemicals (Alum, bleaching powder)
- Arsenic water cannot purified

CHAPTER # 04

AIR

Topic 1: Air in Daily life

One Sentence Answer

1. What is air?
2. What do plants use from air to make food?
1. Why is air important to plants?
2. Why do animals need air?
3. What is wind?
4. How does wind help to dry wet clothes?
5. How is wind used to produce electricity?
6. How does a sailboat use wind?
7. Which gas is used to make urea fertilizer?
8. Which gas is used in fire extinguisher?
9. Why is fizz seen at the time of opening the can of soft drinks?
10. Which gas is used in the packages of chips?

Fill in the blanks

1. Plants use carbon dioxide from air to make _____.
2. Animals need oxygen from the air to _____.
3. Winds can _____ wheels.
4. Wind is used to move big wheel or blade of turbine to produce _____.
5. People use wind from a hand fan or electric fan to _____ themselves.
6. A _____ uses wind to travel across the river.
7. Wind is used to dry wet clothes because it can _____ water from wet things quickly.
8. Wind helps to _____ wet clothes hanging out in open place.
9. A _____ is used to dry wet hair.
10. People use air to _____ something such as footballs, tyres of cars, bicycle and rickshaws.
11. Patients with breathing problems, divers and alpinists are given _____ from oxygen cylinder.
12. People use _____ to make fertilizers called urea.
13. People use _____ to preserve foods such as fish, meat, and chips in tins or packages.
14. _____ is used in soft drinks such as sodas to give it a fizz.
15. In fire extinguishers _____ is used to put out fire.

Board Questions

1. Define air. Write the uses of air in our daily life.
2. Describe the different uses of air like nitrogen, carbon dioxide and oxygen.

LEARNING METERIALS

1. Write the uses of wind in our daily life (One is done for you)

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|------------------|----|----|----|----|
| 1.To move wheels | 2. | 3. | 4. | 5. |
|------------------|----|----|----|----|

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| 6. | 7. | 8. | 9. | 10. |
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2. Write the uses of wind in our daily life (One is done for you)

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|-------------------------|----|----|----|----|
| 1.To pump tyres of cars | 2. | 3. | 4. | 5. |
|-------------------------|----|----|----|----|

| | | | | |
|----|----|----|----|-----|
| 6. | 7. | 8. | 9. | 10. |
|----|----|----|----|-----|

3. Write the scientific name of the following gases with icon

| | | | | |
|--------|----------|----------------|-------------------|--------|
| Oxygen | Nitrogen | Carbon dioxide | Clorofloro carbon | Mitten |
|--------|----------|----------------|-------------------|--------|

| |
|-------|
| O_2 |
|-------|

Topic 2: Air pollution:

One Sentence Answer

1. Write down the name of the elements of air.
2. What is air pollution?
3. What is the major cause of air pollution?
4. What are the causes of air pollution?
5. What are the negative effects of air pollution on the environment?
6. Write three ways to prevent air pollution.
7. Name some diseases caused by air pollution.
8. What is global warming?
9. What is air pressure?
10. What is acid rain?
11. Which kind of pollution is acid rain?
12. Write one way of reducing air pollution in the kitchen.
13. What does 3R's signifies?
14. What will you do to reduce the amount of carbon dioxide in the atmosphere?

Fill in the blanks

1. Air pollution is the _____ of unwanted chemicals, gasses, dust particles, smoke or odor into the air.
2. _____ activity is a major cause of air pollution , especially the burning of fossil fuels.
3. Burning of fossil fuels releases different types of _____ into the air.
4. The smoke from _____ woods is the causes of air pollution.
5. Air pollution is _____ for human health.
6. The smoke from burning _____ fuel includes carbon dioxide.
7. _____ is caused by smokes of industries mixed with cloud.
8. Due to _____ living things can be harmed or killed.
9. Using less energy we can reduce more _____ of fossil fuel.
10. Cleaning garbage and planting trees are good _____ to keep air clean.

Board Questions

1. Define air pollution. Write the main cause of air pollution.
2. Describe the effects of air pollution and show the steps how we can prevent air pollution?
3. How does air pollution effects on our human body as well daily life.

LEARNING MATERIALS

1. Show the causes of air pollution

1.

2.

3.

4.

2. Write the ways to prevent the air pollution

1.

2.

3.

4.

3. Show the negative effects of the air pollution on human health

1.

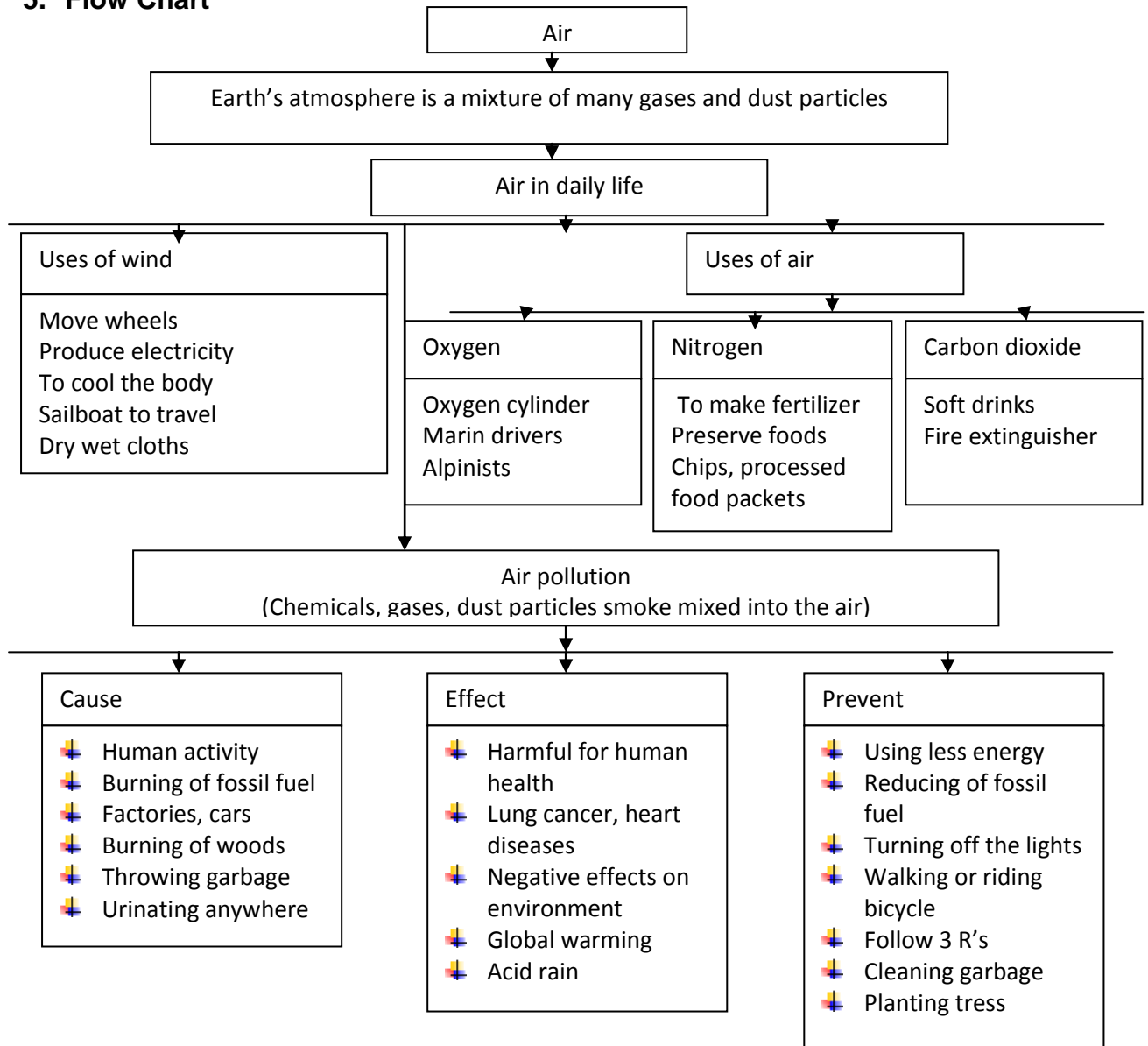
2.

3.

4.

4. Name the diseases that may cause due to air pollution

5. Flow Chart



Chapter-5 Energy and Matter

Topic: Energy (Energy around us, Transformation of Energy)

One Sentence Answer

1. What is called ability to do things?
2. What can energy do?
3. Write the name of five forms of energy.
4. Give four examples of electrical energy.
5. What is mechanical energy?
6. Which energy is required to run a windmill?
7. What kind of energy is produced in a running car?
8. What helps us to see?
9. Give three examples of light energy.
10. What is the energy that helps us to hear?
11. Give two examples of thermal energy.
12. What type of energy do we get from food?
13. What is the main source of all energy?
14. Energy can transform from one type to another is called what?
15. What energy do plants mainly use to make food by themselves?
16. Which technology is used for getting energy from the sunlight?

Short Question:

01. How do you define energy?
02. Write the different forms of energy.
03. What are the sources of energy?
04. What is the transformation of energy?
05. Define windmill.
06. What is called sound energy? Give examples.
07. What is solar panel?

Fill in the blanks:

1. Energy is the _____ to do things.
2. We use _____ to ride a bicycle.
3. We need energy to cook our _____.
4. Energy can change the _____ of something.
5. _____ Energy is used to run electric appliances like fan, Tv, washing machine etc.
6. _____ Energy is required to run a windmill.
7. Light energy can pass through _____ matter.
8. _____ is used to play music in the loud speakers.
9. Sound comes from the _____ of objects.
10. We get _____ energy from the fire of _____.
11. _____ is stored in food.
12. We get energy from wind or water _____.
13. _____ is the main source of all energy.
14. The change of energy from one form to another is called _____.







15. We get solar energy directly as _____.
16. When animals eat plants as their food changed the stored chemical energy in to _____ And _____ energy.
17. Solar panel can change the light energy in to _____ energy.

Board Question





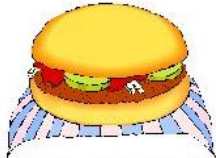



01. Explain the four forms of energy.
02. How would you explain the sources of energy?
03. What examples can you find to energy transformation?
04. What energy change takes place when you switched on a TV? Describe it.

LEARNING MATERIALS

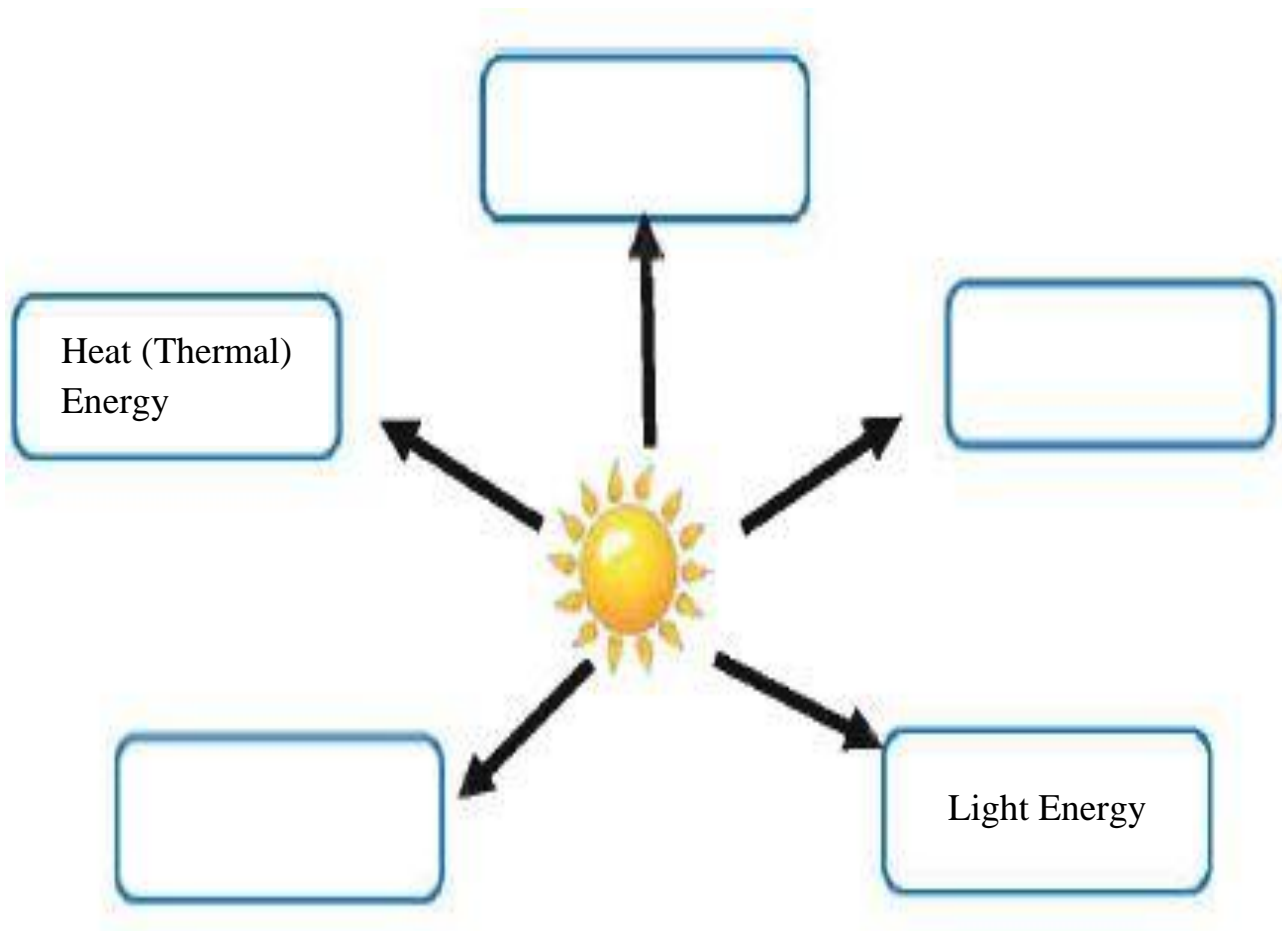
1. Identify the forms of energy:-

| Picture Presentation | The form of energy |
|---|--------------------|
|  | |
|  | |
|  | |
|  | |
|  | |
|  | |





2. Look at each pair of pictures below and decide which form of energy they represent:-

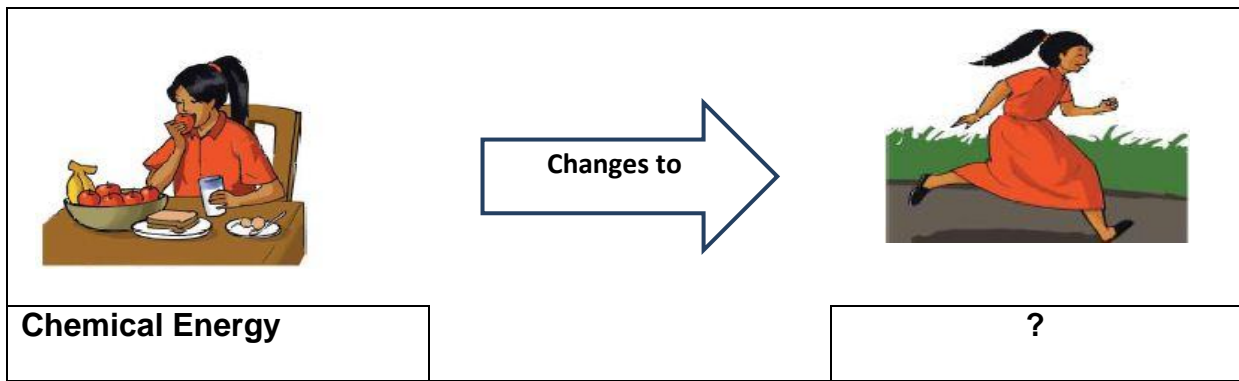
| | | |
|--|--|----------------|
|  <p>The Sun</p> |  | Form of energy |
|  <p>A fire</p> |  | Form of energy |
|  <p>A hamburger</p> |  | Form of energy |
|  <p>A megaphone</p> |  | Form of energy |

3. Name the sources of energy from sun:-



4. Identify the transfer of energy:-

| | | |
|---|------------|---|
|  | Changes to |  |
| Light Energy | | ? |
|  | Changes to |  |
| Mechanical Energy | | ? |



5. Fill up the box with the information:-

| SI No. | Use of Energy | Transformation of Energy |
|--------|---------------------------|---|
| 01. | Preparing foods of plants | |
| 02. | | Chemical energy is transformed into heat and mechanical energy. |
| 03. | Solar Panel | |
| 04. | | Electrical energy is transformed into light, heat and sound energy. |

Topic-Energy (Transfer of heat, Use and saving energy)

One Sentence Answer

1. What do you mean by transfer of heat?
2. How many processes are there of transferring heat?
3. Transfer of heat through solid matter is called what?
4. How will heat transferred through an iron rod if it is heated?
5. What is the process of heat transfer through the gases and liquids?
6. If water pot is heated on a stove, the water goes up and down and heat is transferred in the whole water. How is heat transferred here?
7. What is called the process of emitting energy with out any medium from the source?
8. How can we feel the heat of the sun even through it is millions of kilometers away in space?

9. In which process the whole room will be warmed if you put a heater in one corner of the room?
10. What is the form of energy that helps us to see?
11. In which process can heat be transferred without any medium?
12. There are some energy sources that are not exhausted even though we use them. What are these energy sources called?
13. Give three examples of non-renewable energy source?
14. Your mother uses gas stove. What kind of energy source is it?
15. Which energy will you save by removing the curtain from window during day light?

Short Question:

01. How do you mean by transfer of heat?
02. What are the three processes of heat transfer?
03. What form of energy does a guitar produce?
04. What is called conduction?
05. How do you define convection?
06. What is radiation?
07. How does light travel?
08. In which processes is light transferred?

Fill in the blanks:

1. The flow of _____ energy from warmer place to cooler place is called _____.
2. Thermal energy is transferred through _____ different process.
3. The process of heat transfer through solid matter is called _____.
4. Convection is the process of heat transfer through the _____ and _____.
5. Radiation is the process in which energy is _____ from a source without any _____.
6. Light is the form of energy that helps us to _____.
7. Light travels as _____.
8. _____ does not need any medium to transfer.
9. We use energy in many _____ everyday.
10. _____ resources such as oil, coal and natural gas.
11. We have to use _____ resource wisely.
12. Wasting energy is not good for the _____.
13. _____ to help shape houses on hot summer day.


Board Question

01. What are the three processes of heat transfer? Explain.
02. How does heat travel when you cook rice in a pot? Describe it.
03. Why is it necessary to save energy?
04. Explain how can we save energy?

LEARNING METIERIALS


1. Identify the processes of transfer of heat and describe:-

Energy is transferred by direct contact.



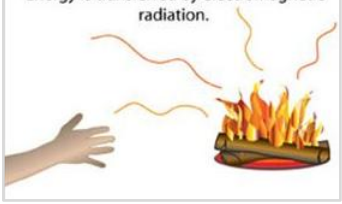
_____ of heat

Energy is transferred by the mass motion of molecules.



_____ of heat

Energy is transferred by electromagnetic radiation.



_____ of heat

2. Write Conduction, Convection or Radiation in the blank spaces to show the type of heat transfer.

1. _____ hot water rises and coldwater sinks.



2. _____ stir frying vegetables.



3. _____ a spoon in a cup of hot soup becomes warmer.



4. _____ grilling hamburgers over a charcoal flame.



5. _____ hot air balloon rises.



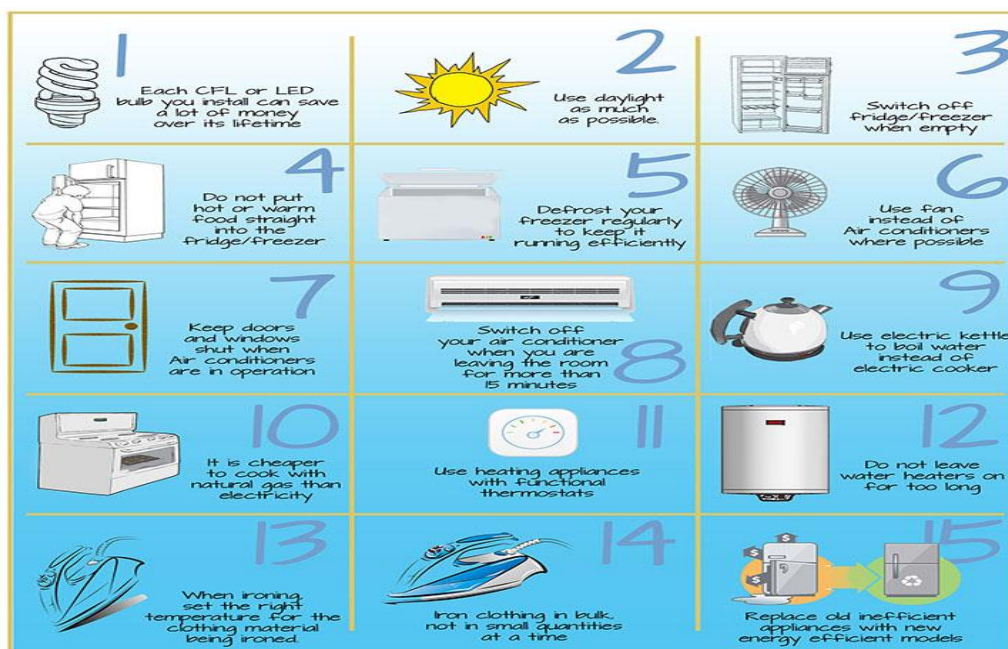
6. _____ you feel the heat from a campfire.



7. _____ a raw egg begins to fry as it hits a heated frying pan.



3. Make a list the ways for saving energy:



Topic- Structure of Matter

One Sentence Answer

1. What is called anything that has weight and takes up space?
2. What is the smallest particle of matter?
3. A group that is made up of two or more atoms joined together is called?
4. What is the collection of innumerable molecules?
5. How does molecule form?
6. Why do the characteristics of matters differ?
7. How many states are there of a matter?
8. Write the names of two catalysts that influence the change of the state of matter.
9. In which Phase are the atoms of a matter arranged in a fixed place?

Short Question

01. How do you define matter?
02. What is matter made up of?
03. Define atom.
04. What is called molecule?
05. How many states are there of a matter?
06. Why does ice transform into water?

Fill in the blanks:

1. Matter is something that has _____ and takes up _____.
2. All matter is made up of very _____ particles.
3. Tiny particles are called _____.
4. Two or more atom makes _____.
5. A molecule is a group that is made up of two or more atoms joined _____.
6. A matter is the collection of _____ molecules.
7. There are _____ states of matter.
8. If the atoms are arranged in a fixed position, it is called _____ state of a matter.
9. If the atoms are randomly arranged and move freely, it is called _____ state of a matter.

Board Question

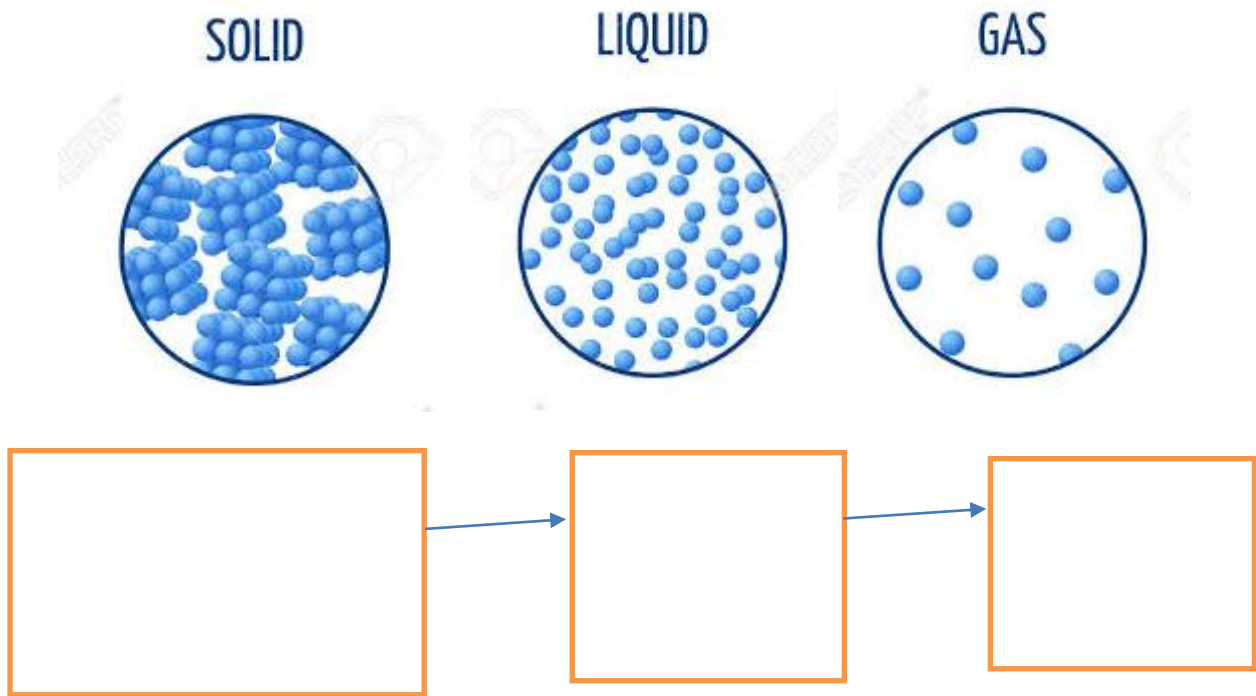
01. How many states are there of matter? What are they?
02. Explain the structure of matter?
03. What are the differences between matter and energy?
04. Write the uses of energy in our daily life?

LEARNING MATERIALS

1. Comparison between atom & molecule:

| | Atom | Molecule |
|-----|--|---|
| 01. | Smallest particle of an element. | |
| 02. | | It always exists independently. |
| 03. | It may or may not have properties of matter. | |
| 04. | | Molecules have inter-molecular forces and intra-molecular forces. |
| 05. | Examples- Hydrogen (H), Oxygen (O) etc. | |

2. Categorize the three states of matter:



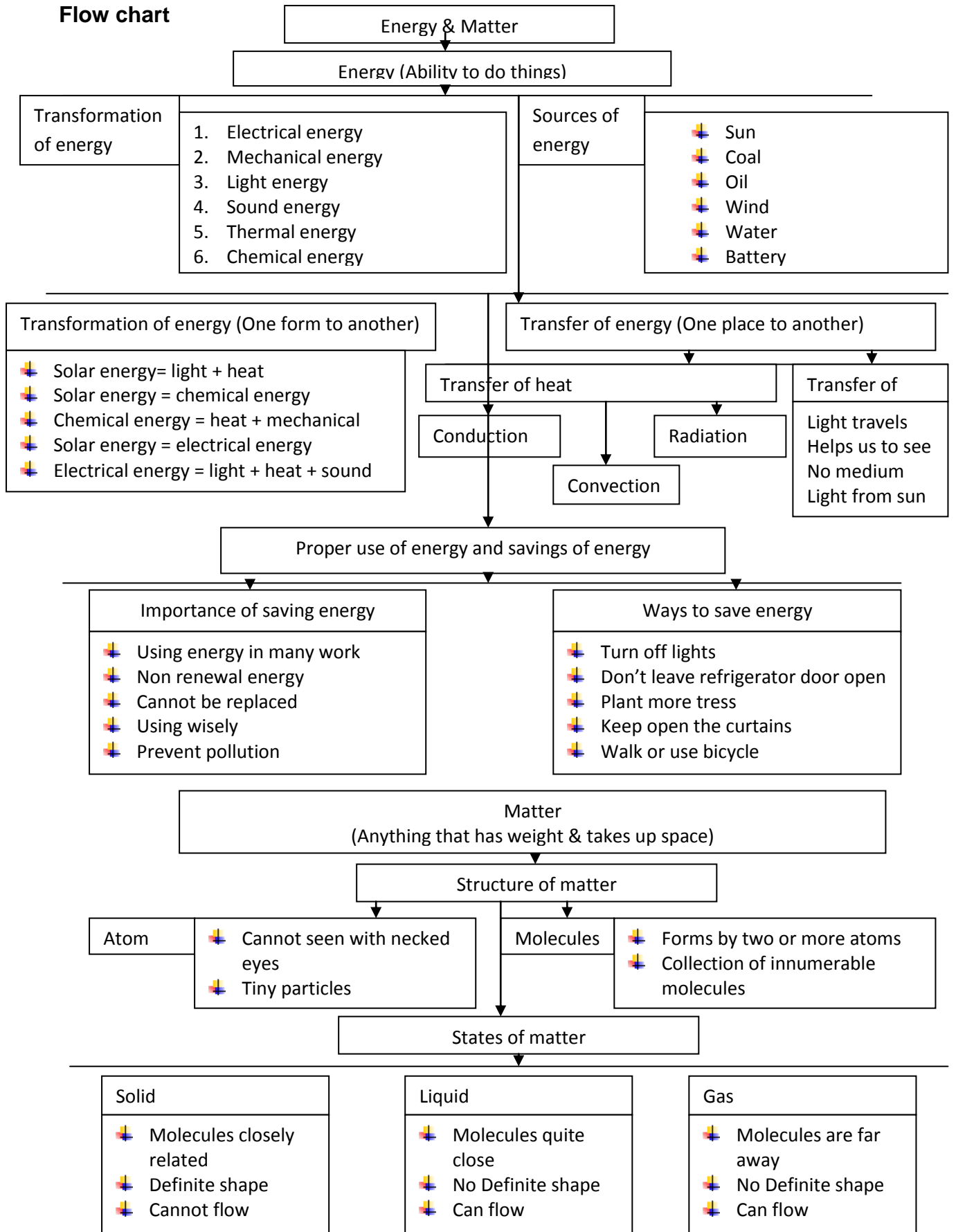
3. Compare the three states of matter:

| | Solid | Liquid | Gas |
|-----|---------------------|-----------------------|--------------------|
| 01. | Has definite volume | | No definite volume |
| 02. | | No definite shape | |
| 03. | | | Low density |
| 04. | | Slightly compressible | |
| 05. | | Can flow | Can flow |
| 06. | Examples: Ice | | |

4. Write down the difference between matter & energy:

| Matter | Energy |
|-------------------------------------|--|
| | Ability to do work is energy. |
| Matter can be created or destroyed. | |
| | Has no shape and structure. |
| Can exist in three states. | |
| | Examples: Electrical energy, Sound energy etc. |

Flow chart



Chapter-6 Food for Good Health

One Sentence Answer

1. What is a balanced diet?
2. What should we know before eating any food?
3. What does our body need?
4. What may be caused by eating too much?
5. Who need more food?
6. Which food elements can make balanced diet?

Fill in the blanks:

1. A balanced diet provides essential_____.
2. Before eating we should know the proper amount of _____ that is needed for our body.
3. It is important to eat a _____ diet.
4. Our body becomes more prone to diseases due to the lack of proper_____.
5. Laborious working people need more_____.
6. Overweight issues can be created for _____ too much food.
7. We have to _____ the proper amount of foods from each of the food groups.

Short Questions:

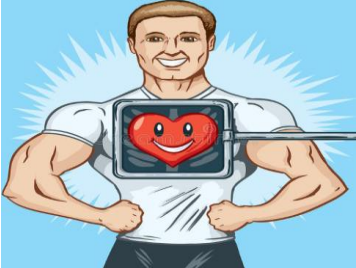



1. What is a balanced diet?
2. How does the demand of food and nutrition vary?
3. Write the ways to be healthy.
4. By taking which type of food our body work effectively?
5. Make a list of four problems that happen in want of nutritious food.
6. Without getting nutritious food which three problems they have to face?
7. Write one effect of eating too much food.
8. According to our age and work which type of food should we take?
9. Write down the quantity of taking food of a day laborer.
10. Write down the quantity of vegetables for taking a 6-12 years old boy.
11. How much soybean oil can a girl take daily?

Board Questions:

1. Define balanced diet. Write down its five importances.

LEARNING MATERIALS






1. Look at the picture and show 4 importance of balanced diet:

| | |
|---|---|
|  | |
| |  |
|  | |
| |  |

2. Fill up the Chart with proper information

| Food name | Group Name | Amount | Daily Serve |
|----------------------------|-------------------|------------------|--------------------|
| Rice, potato , bread | | 1-2 slices | |
| Green cooked vegetables | | | 3 or 4 serves |
| | Protein | Chicken 1 leg | |
| Milk, yogurt | | | 1-2 serves |
| | Oil and fat | 1 table spoon | |

3. Relate the group with foods :

| Group | Foods |
|--------------|--|
| Carbohydrate |  |
| Vitamin |  |
| |  |
| Calcium |  |
| |  |

Topic -2 Food Preservation

One Sentence Answer

1. What is the food preservation?
2. Which methods are used to preserve foods?
3. What do you mean by "cold storage food"?
4. Which preservation process can be used to preserve fish we want to avoid refrigerator?
5. What makes the seasonal food available throughout the year?
6. What does food preservation make easy?

Fill in the blanks:

1. We can't find all types of _____ available throughout the year.
2. We need to _____ food in different ways.
3. _____ methods are used to preserve foods.
4. _____ can preserve crops.
5. We can preserve fish, meat, vegetables for some days in _____.
6. In _____ pot jam, jelly, pickles can be preserved.
7. We can use sugar, _____ or oil to preserve olives, plums, mangoes etc for long time.
8. Wastage can be stopped through food _____.
9. _____ contaminates the dairy products frequently.
10. Food preservation makes easy to _____ food to far places.

Short Questions:

1. Why do we need to preserve food?
2. Write down four ways of food preservation.
3. Through sun drying which types of food can be preserved?
4. In an airtight pot which type of food can be preserved?
5. Write down two methods for preserving fish.
6. Using sugar and vinegar which type of food can be preserved?
7. Write down an importance of food preservation.
8. Which types of foods are spoiled frequently?
9. Write three names of food which get contaminated by bacteria quickly?
10. How does food preservation help to prevent diseases?
11. Write the names of the processes of preserving seasonal food.

Board Question:

1. How can we preserve food? Describe four ways of food preservation.
2. Describe the importance of food preservation in five sentences.

LEARNING MATERIALS

1. Build up the ways of preserving the foods given below :

| Foods Name | Preserving ways |
|------------------------|-----------------|
| rice, wheat, pulses | |
| Fish, meat, vegetables | |
| Jam, jelly, pickles | |
| Olives, plums, mangoes | |

2. Shows the ways to preserve food:

| Method | How to apply |
|--------------|--------------|
| Sun drying | |
| Salt or ice | |
| Airtight pot | |

Topic -3 Food to eat limited

One Sentence Answer

1. What is 'artificial color'?
2. Define "Attention-deficit disorder?"
3. What do you mean by "hyperactivity"?
4. Write down two examples of harmful chemicals.
5. Which chemical is added to preserve food?
6. Which chemical is used for ripening fruits?
7. What is junk food?
8. How does junk food makes us fatty?

Fill in the blanks:

1. Unhealthy foods include too much nutrient that are not _____ for our health.
2. To make the foods more appealing and desirable _____ colors are added.
3. Cancer, attention-deficit disorder and hyperactivity etc. are the results of having artificial _____ added foods.
4. _____ is used of preserve food.
5. _____ is one kind of chemical used for ripening fruits.
6. Burgers, pizza, potato chips, fried chicken, soft drinks etc are the examples of _____.
7. Junk foods are _____ but not healthy.
8. Nutritional deficiencies, overweight and _____ are the effects of having too much junk food.
9. People may get _____ by taking chemical through foods.

Short Questions:

1. What type of food should we avoid?
2. Why artificial colors are added to food?
3. Write down 5 artificial colors added foods name.
4. Write two diseases name which are caused by eating artificial color.
5. Who add chemical into the foods?
6. What is formalin? Where do we use it?
7. Write down the effects of using carbide in foods.
8. Write three names of diseases which caused by chemical added food.
9. Define junk food. Write down its 5 examples.
10. Why is junk food unhealthy for us? Which ingredients does junk food contain?

11. Write down three diseases name caused by eating junk food.

Board Questions:

1. Who does use chemical in food? Write down the names of the chemicals used in foods. Write down the names of some diseases caused by these chemicals.
2. Write down the reason of using artificial color in food. Give 5 names of that kind of food.
3. What is junk food? Write down five names of junk foods. Give 2 bad effects of this type of food.

LEARNING METERIALS

1. Classification of food:

| | | | |
|--------|---------|-----------|-------------|
| Banana | Milk | Candy | Chicken fry |
| Burger | Coconut | Apple | Soft drinks |
| Chips | Popcorn | Ice-cream | Pizza |
| Sweet | Carrot | Fish | Bread |

Healthy foods

Unhealthy foods

| | |
|--|--|
| | |
| | |

2. Show the effects of color and chemical added foods on human body:

| Uses | Effects |
|-------------------------|----------------|
| Chemical | |
| Formalin | |
| Carbide | |
| Artificial color | |

3. Contaminated foods and effects on human body :

| Chemical name | How applied | Effects |
|------------------|-------------|---------|
| Artificial color | | |
| Carbide | | |
| Formalin | | |

4. Show the difference between junk food and healthy food :

| | Healthy food | | Junk food |
|---|--------------|---|-----------|
| 1 | | 1 | |
| 2 | | 2 | |
| 3 | | 3 | |

5. Write down artificial color added foods name :

Flow Chart

Foods for good health

Food

Any substance consumed to provide nutritional support for any organism

Balance diet

All of the 6 necessary elements to fulfill the demands for proper nutrition's & growth

Importance of balance diet

- ✚ To remain healthy
- ✚ To keep the body active
- ✚ High performance
- ✚ Growth & development

Side effects of over eating

- ✚ Overweight issue
- ✚ More prone to diseases
- ✚ Poor performance

Food group

Carbohydrate
Grain & potato

Vegetables
Vitamins & minerals

Fruits
Vitamins & minerals

Protein
Fish, meat

Milk group
Calcium

Oil & Fat

Food preservation

(The method to keep foods edible for long time)

Ways to preserve foods

- ✚ Sun drying
- ✚ Refrigerator
- ✚ Cold storage
- ✚ Airtight pot
- ✚ Using salt or ice
- ✚ Using sugar, vinegar and oil

Ways to preserve foods

- ✚ Stop wastage
- ✚ Slow down spoilage
- ✚ Prevent the growth of bacteria
- ✚ Seasonal foods available
- ✚ Transport foods to far places

Foods to eat limited

Artificial colors & chemicals

- ✚ Contains formalin
- ✚ More appealing & desirable
- ✚ Dishonest dealers
- ✚ Spread diseases like cancer

Junk foods

- ✚ Lots of sugar, salt
- ✚ No balance diet
- ✚ Contains fat
- ✚ Burger, pizza

Result

- ✚ Overweigh
- ✚ Obesity

CHAPTER # 07
HEALTHY LIFE STYLE

Topic-Infectious Disease:

One Sentence Answer

1. What does help to keep our health good?
2. Name the diseases caused by germs such as bacteria, viruses, fungi etc?
3. What are the ways of spreading infectious diseases?
4. Write the ways of causing infectious diseases.
5. What should you do while sneezing?

Fill in the blanks:

1. A healthy lifestyle helps to keep and _____ our health and _____.
2. Infectious diseases are the diseases that caused by _____ such as bacteria, viruses, fungi etc.
3. Infectious diseases can spread in _____ way.
4. Some infectious diseases are _____ by bites of insects.
5. The diseases can spread, directly or indirectly from one _____ to another.

Short Question:

1. Define infectious disease.
2. How infectious diseases are spreading?
3. What are the ways of spreading infectious disease?
4. How can we prevent infectious disease?
5. Make a list of the ways that infectious disease spreads.

Board Question:

1. Give the definition of infectious disease. What are the causes of infectious disease?
2. Describe the prevention ways of infectious disease.
3. Infectious disease can spread in different way. Give your own opinion.

LEARNING MATERIALS

1. Write the meaning of following words

| | |
|---------------------------|--|
| Infectious disease | |
| Bacteria | |
| Contaminated | |
| Fungi | |
| Germs | |

2. Causes and effects of infectious diseases

| Causes | Effects |
|---------------|----------------|
| | |
| | |

3. Make a list of table how infectious disease spread

| SL | Details |
|-----------|-----------------------|
| 1 | Sneezing |
| 2 | Coughs |
| 3 | Food and water |

Topic-Types of Infectious Diseases

One Sentence Answer

1. What is air borne disease?
2. What kind of diseases is responsible for swine flu and chicken pox?
3. What are called the diseases caused by taking water contaminated with germs?
4. Write down the names of two waterborne disease?
5. What kind of diseases is responsible for typhoid and dysentery?
6. Give two examples of contact diseases.
7. Name the disease caused by direct or indirect contact with an infected person?
8. By which virus does AIDS disease spread?
9. Which disease is transmitted by dog bites?
10. What type of disease is dengue?

Short Question:

1. Define airborne disease.
2. How does the airborne disease spread?
3. How can we prevent airborne disease?
4. Define waterborne disease.
5. How does the waterborne disease spread?
6. How can we prevent waterborne disease?
7. Define contact disease.
8. How does the contact disease spread?
9. What does AIDS stands for?
10. What is the full form of HIV?

Fill in the blanks:

1. Airborne diseases are the diseases caused by _____ and transmitted through the _____ due to coughing, sneezing or taking.
2. _____ diseases are responsible for tuberculosis and influenza.
3. Waterborne diseases are the caused by taking _____ contaminated with _____.
4. Contact diseases are diseases caused by direct or indirect contact with an infected person.
5. Flu, Ebola and _____ are such kind of disease.
6. AIDS is different kind of infectious disease caused by _____ virus.
7. Some infectious diseases are transmitted by animal and insect _____.
8. _____ is transmitted through bites of rabies-infected dogs.
9. Malaria and Dengue is caused by _____ bites.

Board Question:

1. Define airborne diseases. Write some names of airborne diseases. How can we prevent airborne diseases?
2. Define waterborne diseases. Write some names of waterborne diseases. How can we prevent waterborne diseases? Write 5 differences between waterborne diseases and airborne diseases.
3. What is the full form of AIDS? What is contact disease? How does this disease spread?

4. What is the full form of HIV? Give example of diseases spread by animals and insects. How those diseases spread?

LEARNING MATERIALS

1. Make a list of the diseases in the table.

| Types of diseases | Name of the disease |
|--------------------|---------------------|
| Airborne disease | |
| Waterborne disease | |
| Contact disease | |
| Animal and insects | |

2. Describe infectious diseases by using picture

| | |
|--|--|
| Chicken pox | |
| | |
| | |
| Rabies infected by dogs | |
| | |
| | |

3. Difference between Airborne and waterborne diseases

| Airborne diseases | Waterborne diseases |
|-------------------|---------------------|
| | |
| | |
| | |
| | |

4. Fill the gaps with appropriate answer

| Name of the disease | Type of disease |
|---------------------|--------------------|
| Swine flu | Waterborne disease |
| Ebola | AIDS |
| HIV | |

Topic- Prevention and cure of Infectious Diseases

One Sentence Answer

1. What is the called immune system?
2. Write two ways of preventing the infectious diseases.
3. Why do we need to cover our face during coughs and sneezes with handkerchief, tissue or elbow?
4. What will you do while sneezing?
5. In which steps should be taken to keep our environment clean?
6. Which is the carrier of Malaria or Dengue germ?
7. Write down the names the two diseases that spread through mosquito bites.
8. What does help reduce the risks of the diseases?

Short Questions:

1. Define immune system.
2. Give the definition of balance diet.
3. Make a list of balance diet foods.
4. How can we free from infectious disease.
5. How can we prevent dengue and malaria?
6. Write the names of how to cure infectious disease.

Fill in the blanks:

1. Infectious diseases spread through_____.
2. The most important thing that we can do is to improve our _____.
3. We can prevent the spread of diseases by adequate_____ in our rooms.
4. We can keep our body healthy by eating _____ diet.
5. _____ is the carrier of malaria or dengue germs.
6. Getting Vaccination and avoiding _____ foods helps reduce the risks of the diseases.
7. When we get diseases taking rest, eating _____ food and drinking enough_____ water.

8. We have mild fever or headache some medicine helps us feel move
9. Initially.

Board Questions:

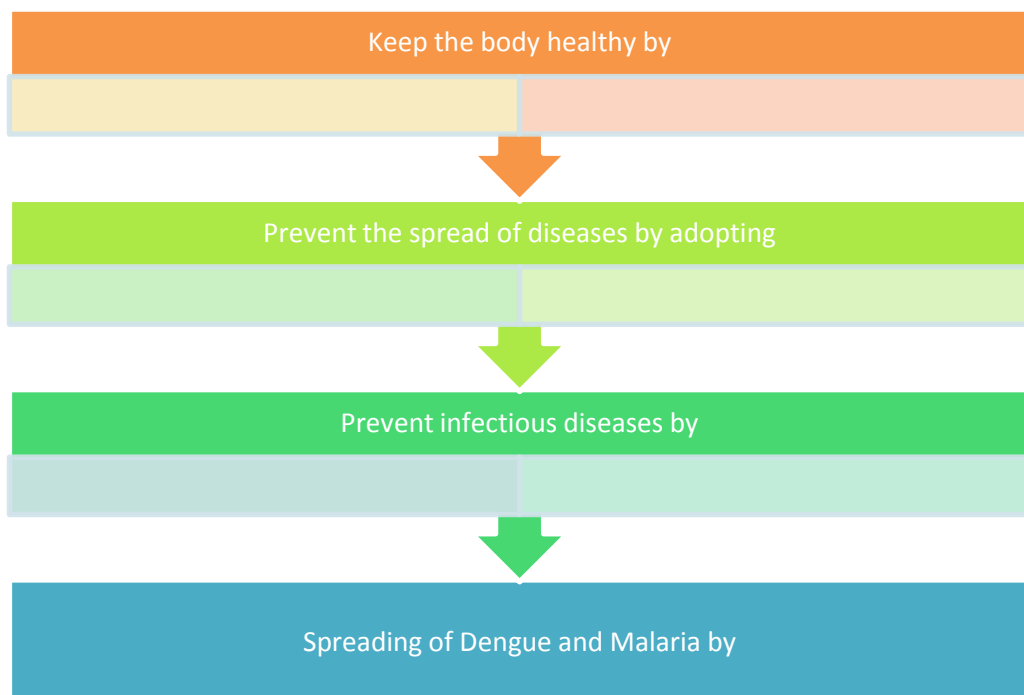
1. Write the importance of balance diet.
2. We can prevent dengue or malaria by removing objects holding water like bowl, tire etc.
3. Explain the ways of preventing infectious disease.
4. Describe how to cure infectious disease.

LEARNING METERIALS

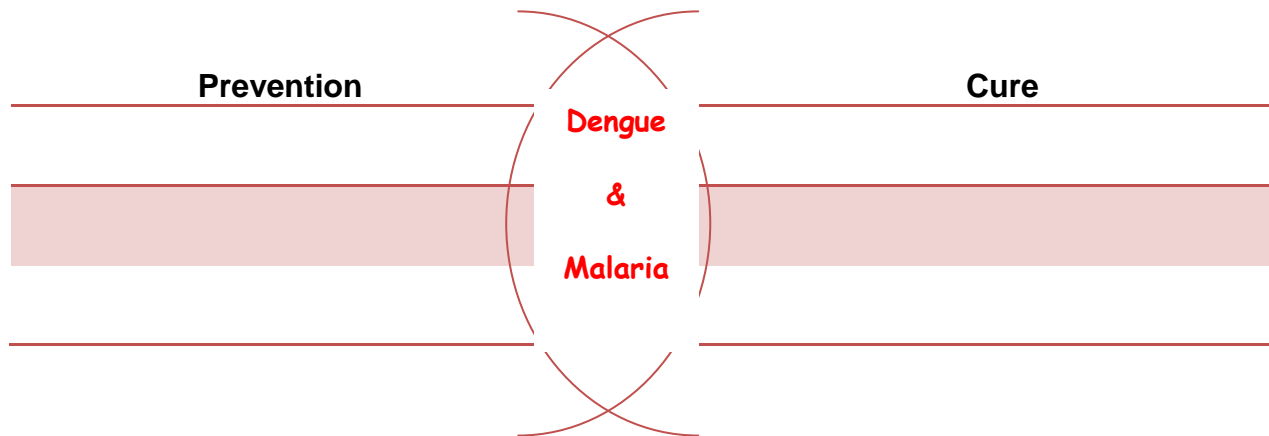
1. List the ways of preventions of infectious diseases



2. Follow the sequence



3. Show the prevention steps and procedure of cure of the following diseases



Topic- Puberty

One Sentence Answer

1. What is called the period of life when our body begins to develop and change from the body?
2. When does puberty start for boys?
3. When does puberty start for girls?
4. What do happen during puberty
5. What do happen to boys during puberty?
6. What do we feel about how our changing body looks?
7. What is natural change?
8. Whom should we talk to about puberty?
9. What is a good way to manage your anxiety about changing body looks during puberty?

Fill in the blanks:

1. Puberty is the time in life when our _____ begins to develop and change from the body of a child to the body of a _____.
2. Puberty starts between age _____ and _____ in girls.
3. Puberty starts between age _____ and _____ in boys.
4. During puberty physical, emotional and _____ changes occur for boys and girls.
5. Body _____ increases during puberty.
6. At puberty, Girls muscles are start _____ but not as much as boys.
7. Maintaining personal _____ and taking _____ food is very important during puberty.

Short Questions:

1. What is Puberty?
2. For boys which changes are happened in the body during puberty?
3. What changes are occurred in the body during puberty for girls?
4. Write two similar changes between boys and girls during puberty.

Board Questions:

1. Definition of puberty. Write 4 differences between boys and girls during puberty.
2. Describe the importance of taking care of the body during puberty.
3. Why should we take care of our child during puberty? Explain

LEARNING MATERIALS

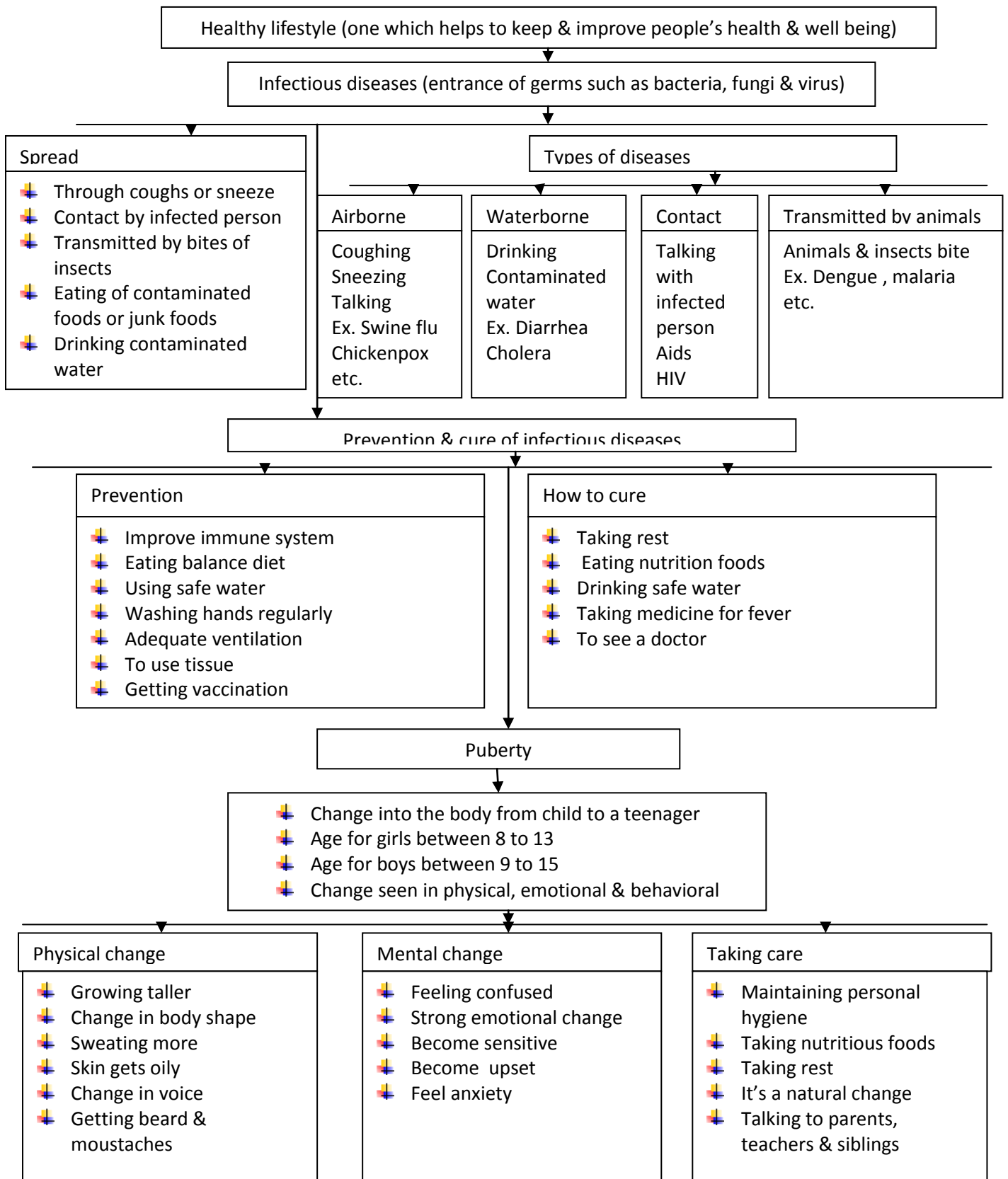
1. Show the symptoms that are noticed during puberty in Boys and girls.

| In case of Boys | In case of girls |
|-----------------|------------------|
| | |
| | |

2. Make a list of chart what should we do taking care of our child during puberty.

| Boys | Girls |
|------|-------|
| | |
| | |

Flow chart



Chapter 08

UNIVERSE

One Sentence Answer

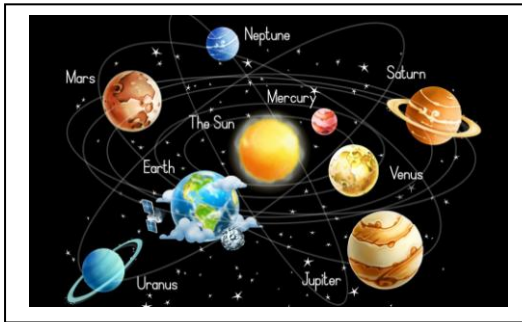
1. What is the universe?
2. What is telescope?
3. What is the distance from the moon to the earth?
4. How far is the sun from the earth?
5. If the sun emits light at 1p.m, when will we see the light from the earth?
6. Who said that a galaxy has ten thousand crores of stars?
7. What is the size of the universe?
8. Define "Astronomy".
9. Who invented telescope?
10. How much time does the earth need to rotate around its axis?
11. How much time does the earth need to complete one trip around the sun?
12. Earth's axis goes through which poles?

Fill in the gaps

1. With the naked eyes, we can see _____ numbers of stars in the night sky.
2. _____ makes far away objects seem larger.
3. A distance from the moon to the earth is _____ km.
4. _____ can travel at approximately 300,00km a second.
5. Light travels from the moon to the earth within _____ second.
6. 150,000,000 km is the distance from the _____ to _____.
7. The sun emits light before _____ minutes we see.
8. _____ is one of the galaxies in the universe.
9. The universe is still _____.
10. There is no estimated size of the _____.
11. The study of universe about stars, planets, space is called _____.
12. _____ was invented by Galileo.
13. The solar system _____ around the sun.
14. _____ is the path through that earth and other planets move around the sun.
15. The spinning motion of the earth is _____.
16. _____ refers to the orbital motion of the earth around the sun.
17. An imaginary line through the center of an object is called _____.

LEARNING MATERIALS

1. Picture presentation



Name the things you can see in the sky-



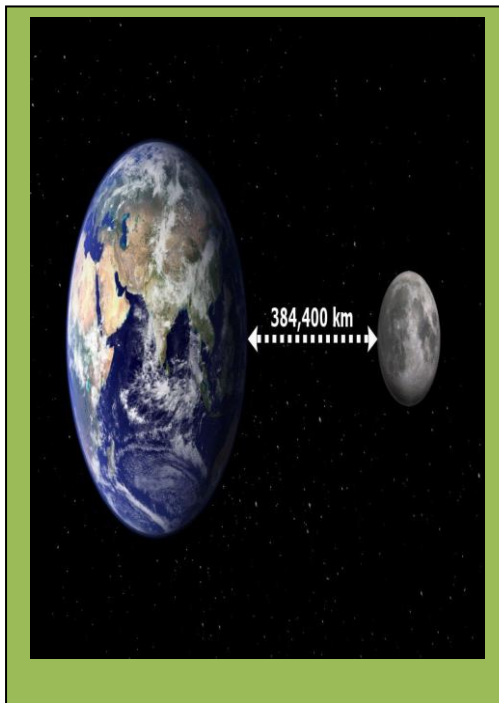
| | |
|----------------------|--|
| Uses | |
| Users | |
| Benefits | |
| Research work | |
| Available | |

2. Show the process of wheat growing

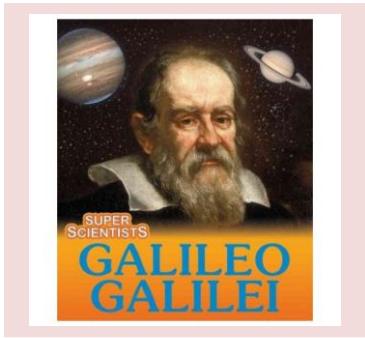


| | |
|--|--|
| <p>Name the planets in the Galaxy</p> | |
| | |
| | |
| | |

3. Fill up the following gaps



| Show the measurements | |
|--|--|
| Distance from moon to earth | |
| Light can travel in | |
| Light can travel from moon to earth at | |
| Distance from sun to earth | |
| Light can travel from sun to earth | |
| Travel to milky way takes | |
| Our galaxy has | |



Name



Name



Name

- 1.
- 2.
- 3.
- 4.



Name

5 Lines about the Picture

4. Let's Recall the Universe

| | |
|------------------------|--|
| Moon | |
| | |
| | |
| Earth | |
| | |
| | |
| Light | |
| | |
| | |
| Sun | |
| | |
| | |
| Milky way | |
| | |
| | |
| Galileo Galilee | |
| | |
| | |
| Astronomy | |
| | |
| | |
| Space station | |
| | |
| | |

5. About NASA



The National Aeronautics and Space Administration is an independent agency of the United States Federal Government responsible for the civilian space program, as well as aeronautics and aerospace research. NASA was established in 1958, succeeding the National Advisory Committee for Aeronautics.

Headquarters: Washington, D.C., United States

Founder: Dwight D. Eisenhower

Founded: July 29, 1958, United States of America

Customer service: +1 202-358-0001

Administered by: Jim Bridenstine

Video games: Moonbase Alpha, Satellite Insight, NetworkKing, NASA Science

| | |
|--------------------------|--|
| Full name of NASA | |
| Headquarters | |
| Activities | |
| Established on | |
| Founder | |

Topic 2:

One Sentence Answer

1. In which directions the sun rises and sets?
2. Why is the earth spinning on its axis from west to east?

Fill in the gaps

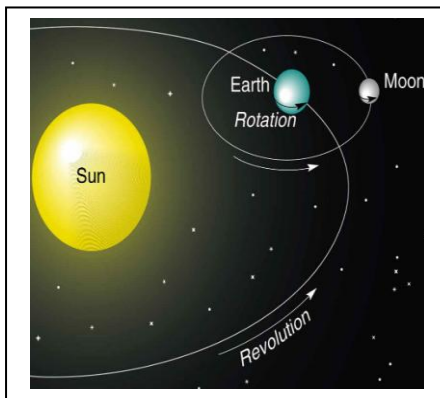
1. Day and night are caused by earth's _____.
2. The sun rise in the _____ and sets in the _____.
3. The side of the earth facing the sun is _____.
4. The side of the earth not facing the sun is _____.
5. The earth spins from _____ to _____.
6. The sun _____ to move from east to west across the sky.

Broad Questions

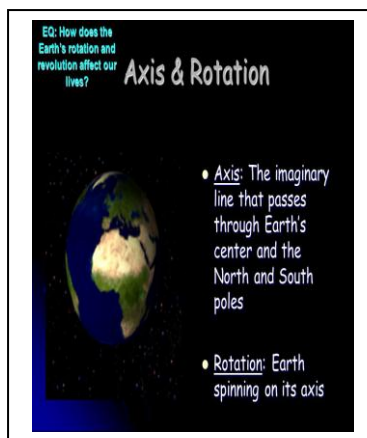
1. Write the causes of day & night.
2. Describe the earth's rotation in your own words.

LEARNING MATERIALS

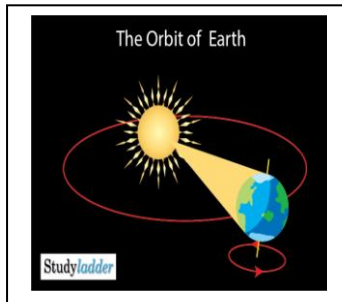
1. 'The earth is moving around the sun' - Justify



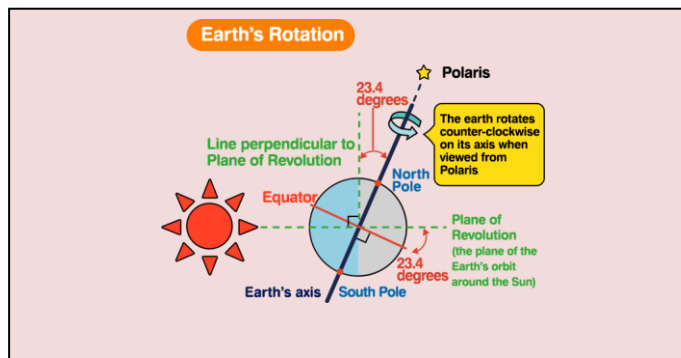
2. Write about earth's axis & rotation



| Axis | Rotation |
|------|----------|
| | |



3. Explain the picture given in the box



4. Recall the session

Orbit

Revolution

Axis

Rotation

Earth's rotation

Topic-3

One Sentence Answer

1. What is revolution?
2. What do you mean by "Hemisphere"?
3. In which season the sun appears to rise in the higher sky?
4. What season makes us see the sun in the lower sky?

Fill in the gaps

1. The earth's _____ causes season change.
2. During summer the _____ hemisphere tilts toward the sun.
3. When the southern hemisphere tilts away from the sun, it is _____.
4. Day time gets _____ in the winter season.

Broad Questions

3. Write the causes of change in seasons.

Topic-4

One lines questions

1. What is moon?
2. What is Sun?
3. Can we see full moon and new moon at the same time?
4. Why planet and Satellite aren't same?
5. Name the six seasons.
6. Write the main reasons of changing seasons.
7. When does summer come?
8. When does winter come?
9. If the temperature gets lower, what will happen?
10. What do you mean by phase of moon?
11. Write the name of satellite.
12. Define satellite.
13. What time the moon takes to round on its axis?
14. What time the moon takes to round on earth's axis?
15. Write the activity of the moon.
16. Identify the full moon and new moon.

Fill in the blank.

1. _____ of the moon refers to the changing shapes of the bright part of the moon that we see.
2. The earth's only satellite is the _____.
3. The moon has no _____ of it's own.
4. The moon reflects of the light of the _____.
5. When we can see full of the side of the moon lighted, it is called _____.

Board Question

1. Write the causes of season change.
2. Write the results if the earth tilts toward the sun.
3. Give the reasons why the northern hemisphere tilts away from the sun.
4. Discover the motion of the moon.
5. Discuss about the rotation of the moon and the different stage of the moon.

LEARNING MATERIALS

1. Activity Area

Experiment on : Causes of day and night

Elements : 1. A Globe
2. A Torch

Sample : A team of 3 students



Hypothesis :

Result :

2. Interrupt the result what happening on the bright side of the earth



| |
|--|
| |
| |
| |
| |
| |

3. Look the picture above

Explain the occurrence of the dark side of the earth

| |
|--|
| |
| |
| |

Show how
day and
night
changes




| | |
|--|--|
| | |
| | |
| | |
| | |

4. Look at the picture and learn

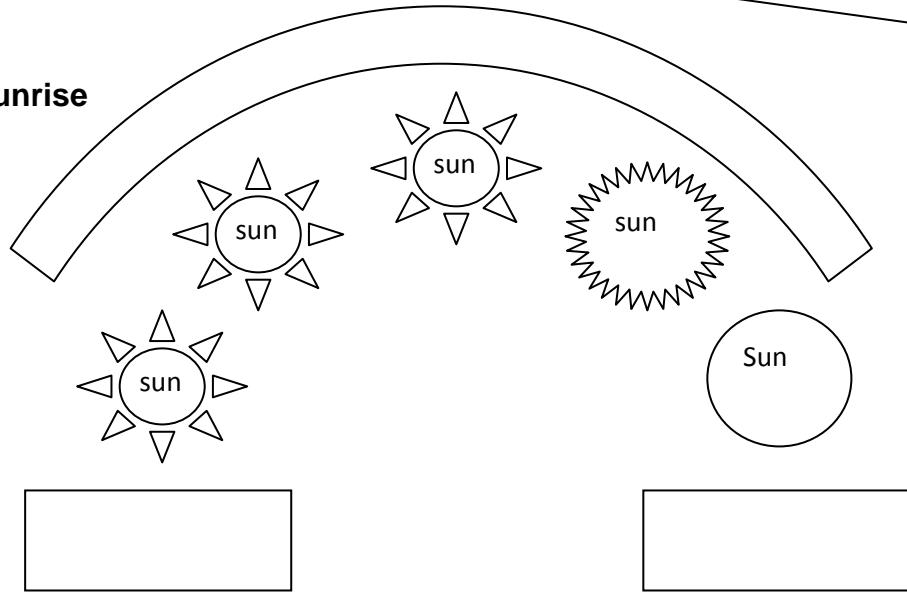
Day and Night

- Each day the sun seems to move across the sky.
- It's not the sun that is moving...IT IS THE EARTH!!!!
- Earth rotates.
- To rotate is to spin like a top.



5. Sunset and sunrise

Show the results of the sun's movement



6. Discover the 6 seasons in our country

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

Season is -

The _____ of the earth's _____ and its



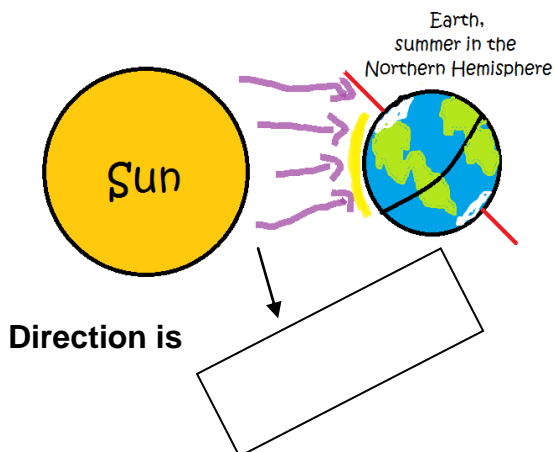
_____ around the _____ . As the earth



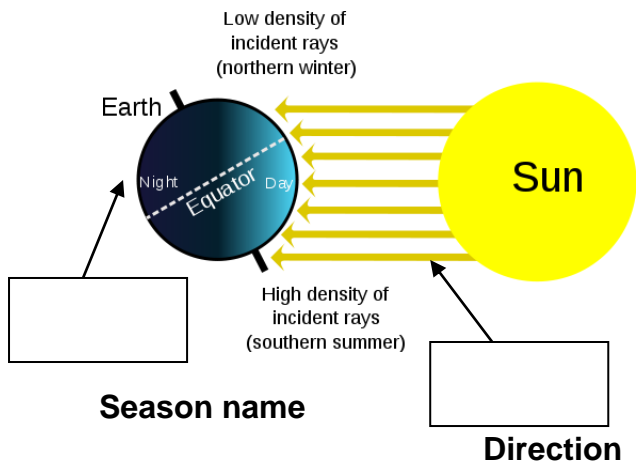
_____ different parts of the earth _____ towards or away the



7. Show the results

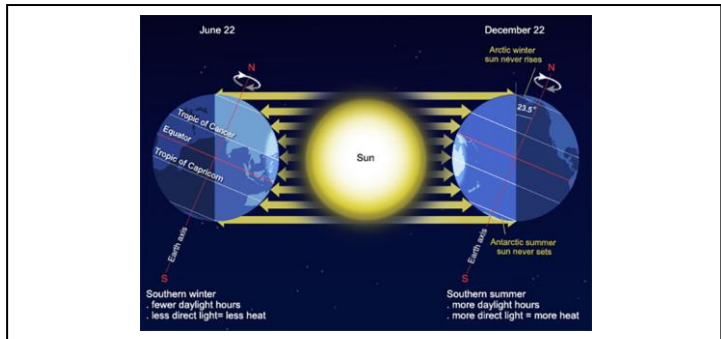


| |
|-----------------|
| Season |
| Features |
| |
| |



| |
|----------------|
| Season |
| Feature |
| |
| |

8. Fill the information



| | | |
|-----------------------------|--|--|
| Season | | |
| Sunlight | | |
| Earth's direction | | |
| Temperature | | |
| Length of day time | | |
| Length of night time | | |

9. Classify the phases of moon accordingly to its shape.



10. Conduct the motion of the moon



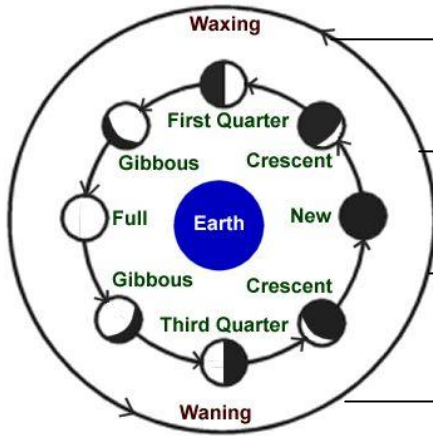
| | |
|-------------------------------------|--|
| Works as | |
| Revolves | |
| Rotation time | |
| Moving time around the earth | |

11. Define moon light



| |
|--|
| |
| |
| |

12. Show the moon in rotation
Write the Different phases of the moon



13. Definitions

Full Moon

New Moon

14. Recognize the person

Neil Alden Armstrong (August 5, 1930 – August 25, 2012) was an American [astronaut](#) and [aeronautical engineer](#) who was the [first person to walk on the Moon](#). He was also a [naval aviator](#), [test pilot](#), and [university professor](#).



Write about him in 5 lines

| | |
|-------------------|--|
| Full name | |
| Birth | |
| Death | |
| Occupation | |
| Mission | |

15. Bangladesh's involvement into the space



The **BangabandhuSatellite-1** is the first Bangladeshi geostationary communications and Broadcasting Satellite. It was manufactured by Thales Alenia Space and launched on 11 May 2018. The project is being implemented by Bangladesh Telecommunication Regulatory Commission (BTRC) working hand-in-hand with US based Space Partnership International, LLC. and was the first payload launched by a Falcon 9 Block 5 rocket of SpaceX.

Bangladesh Government formed a Government owned Bangladesh Communication Satellite Company Limited, BCSCCL with the aim to operate the Bangabandhu Satellite-1.

The Bangabandhu Satellite-1 is the first Bangladeshi geostationary communications and Broadcasting Satellite. It was manufactured by Thales Alenia Space and launched on 11 May 2018. Wikipedia

Launch date: 11 May 2018, 20:14 UTC

Launch mass: ~3,709 kg (8,177 lb)

Mission duration: 15 years

Rocket: Falcon 9 Block 5

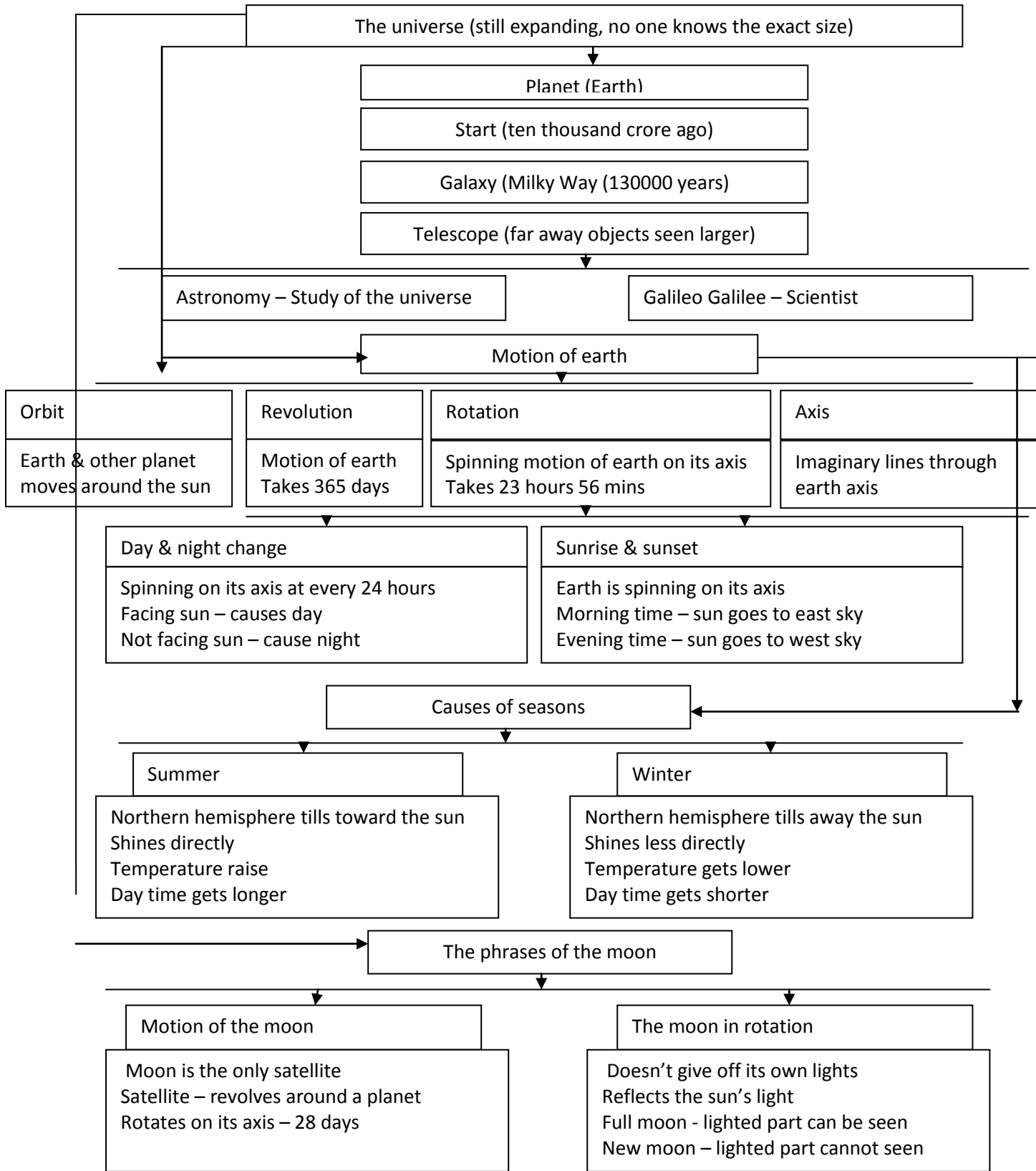
Manufacturer: Thales Alenia Space

Longitude: 119.09°E



| | |
|-----------------------------|--|
| Satellite | |
| Manufactured by | |
| Launch date | |
| Project done by | |
| Launch time | |
| Mission | |
| Aim of the satellite | |

Flow Chart



CHAPTER # 09
TECHNOLOGIES ON OUR LIFE

Topic 1 SCIENCE & TECHNOLOGY

One Sentence Answer

1. Write the definition of technology.
2. Write the definition of science.
3. Write the difference between science and technology.
4. Define scientific method.
5. Show the difference between observation and hypothesis.
6. Define industrial revolution.
7. Where do we need to apply scientific knowledge?
8. What does hypothesis mean?
9. What is the importance of sharing information?

Fill in the blanks:

1. _____ is used to apply in technologies.
2. The knowledge that gained from experiment and observation is called _____.
3. Making an answer based on the previous knowledge is called _____.
4. Scientific knowledge is applied to create _____.
5. Justification of hypothesis is called _____.

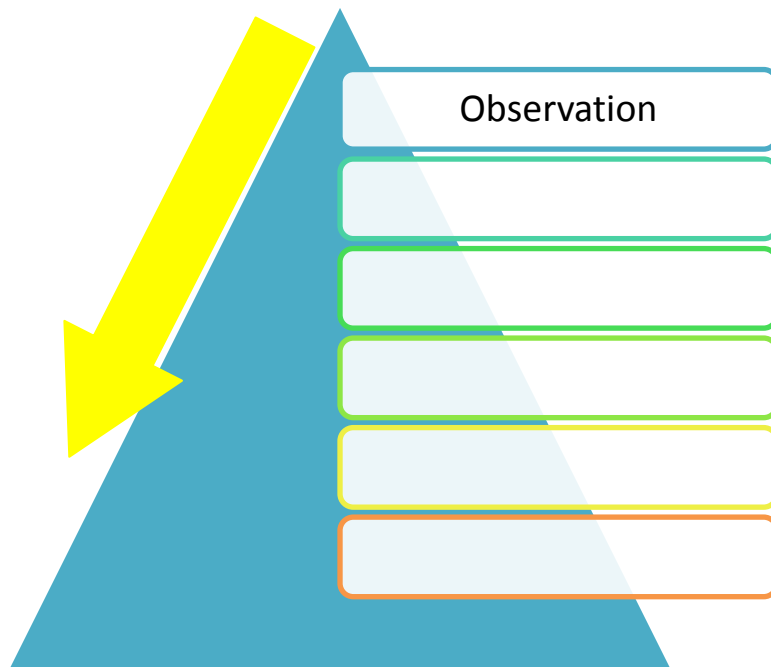
Board Questions

1. Describe the relationship between science and technology.
2. How scientific knowledge help to innovate technology.
3. Design the steps of scientific method to invent the technology.
4. Estimate how technology helps in our daily life.

1. Write the used of scientific technology in the given sectors

| Sectors | Scientific knowledge | Technology |
|----------------|----------------------|------------|
| Transportation | | |
| Medical care | | |
| Agriculture | | |
| House | | |
| Education | | |

2. Show us the steps of using scientific method



Topic 2 Technology in Agriculture and negative effects of technology

One Sentence Answer

1. How do technologies help in agriculture?
2. Name 5 agricultural tools used in agriculture.
3. Write about mechanical technology and its uses.
4. Write about chemical technology and its uses.
5. Write about biotechnology and its uses.
6. How do the technologies help farmers in cultivating crops?
7. Is technology pollutes environment?
8. Name the negative effects of technology on our environment.
9. Write 2 lines about weapon technology.
10. How does technology effects on human body?
11. What causes the air pollution?
12. Show the causes of noise pollution.

Fill in the blanks:

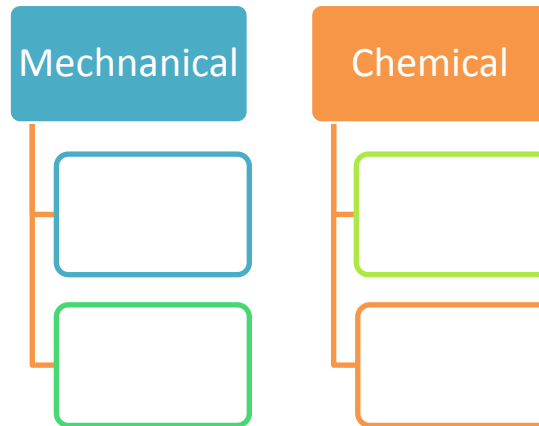
1. To meet the demand of food we need to use _____.
2. _____ helps to produce a lot of foods.
3. To _____ the production farmers use fertilizers and chemicals.
4. _____ helps to grow crops more quickly.
5. To make the plants with special quality _____ is used.
6. Technologies make human life easy by _____ our problems.
7. _____ cause air pollution by creating smoke.
8. _____ and _____ are the effects of air pollution.
9. _____ of science application are involved in weapon technology.
10. _____ limits our thinking ability and hurdle our regular life.

Board Questions

1. Describe the uses of technology in agriculture.
2. Write the uses of chemical technology in our life.
3. Describe the benefits of biotechnology to produce more crops.
4. Explain the negative effects of technology in our life.
5. How the environment gets polluted due to the wrong use of technology.
6. Make difference between the advances and disadvantage of uses of the technology.

LEARNING METARIALS

1. Use of technology in agriculture



2. Write the names of agricultural tools that use in farming

1 _____ 2 _____ 3 _____ 4 _____ 5 _____

3. Give some example of Biotechnology in producing any living things

1 _____ 2 _____

3 _____ 4 _____

5 _____ 6 _____

4. Write the negative effects of the technology

1 _____

2 _____

3 _____

4 _____

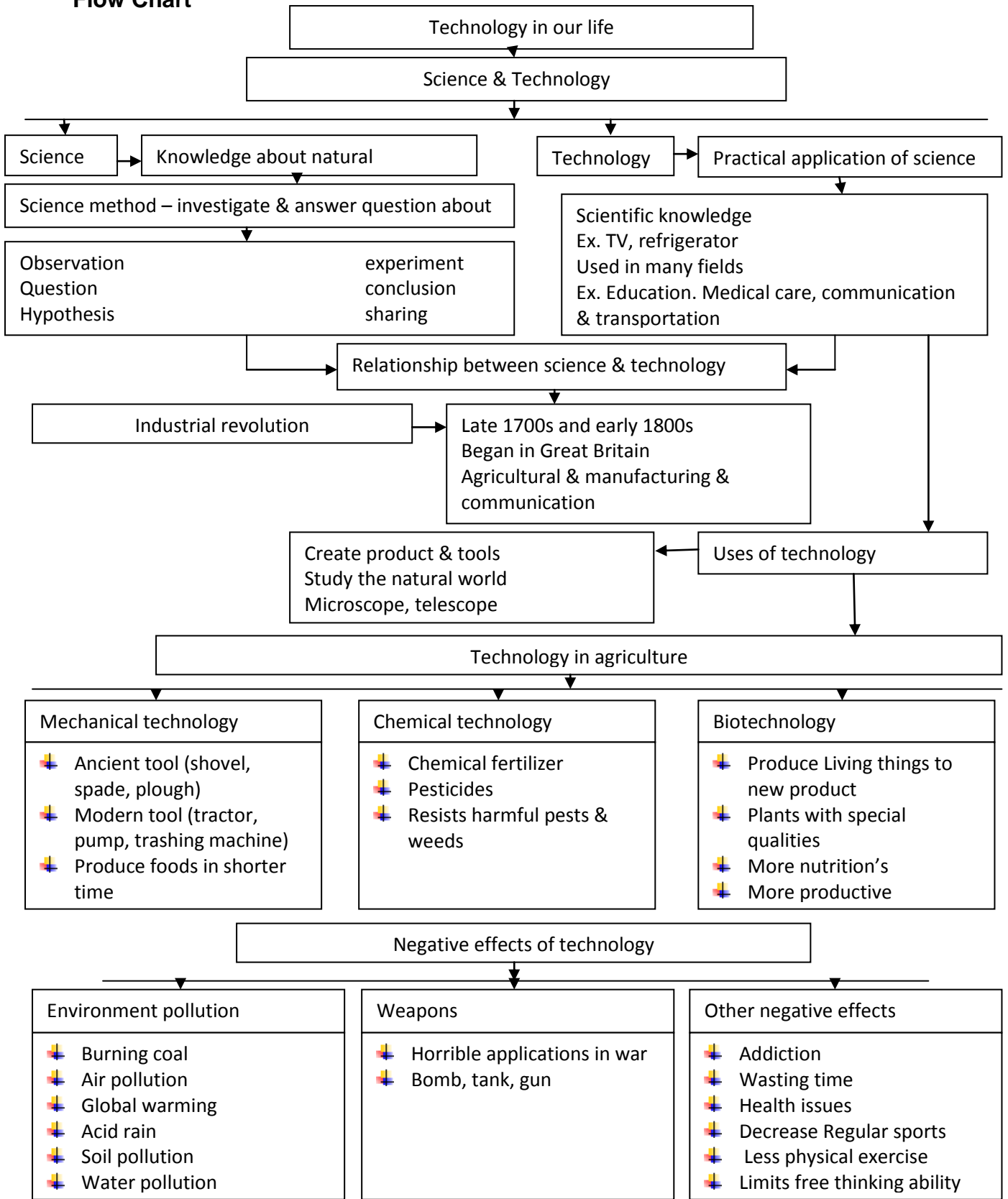
5. Write the advantage and disadvantage of the technology

| Advantage | Disadvantage |
|------------------|---------------------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |

6. Name some weapons used during the war

| | | | |
|----------|----------|----------|----------|
| 1 | 2 | 3 | 4 |
|----------|----------|----------|----------|

Flow Chart



Chapter 10

Information in our life

Topic 1 Importance of Information Sharing

One Sentence Answer

1. Why do we need to acquire the proper skills?
2. Write the importance of information in our life.
3. What do you understand by information sharing? How does it help people?
4. Why is information sharing important? Give an example.
5. Who is meteorologist? Describe their job?
6. What are the national assets of coastal people? How can it be saved?
7. How can we share information?
8. What do you understand by ICT?
9. How can we collect information?
10. What do you mean by information sharing?

Fill in the blanks:

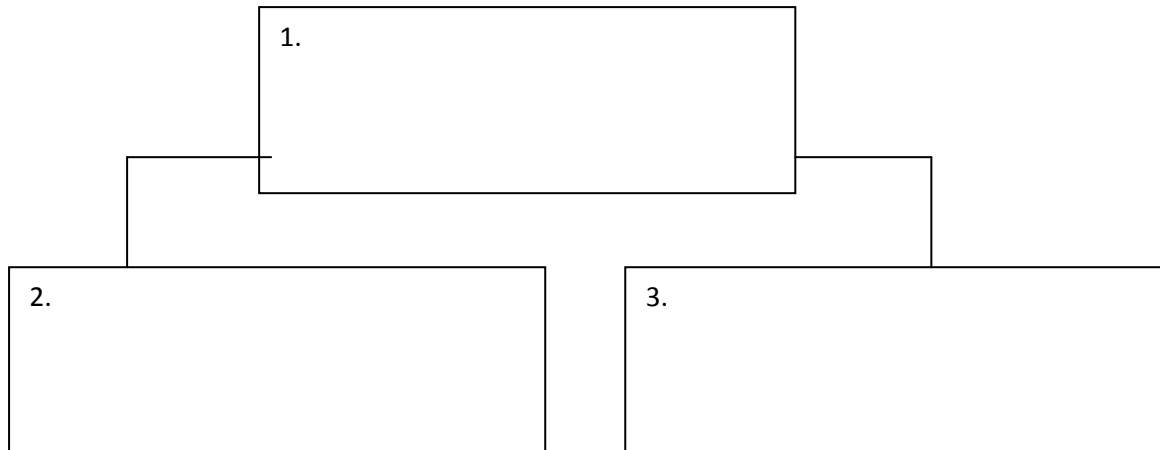
1. We receive a lot of _____ from our surroundings.
2. _____ enables us to know about the updated issues to make a decisions,
3. To be safe and _____ their wellbeing, information can give us necessary things.
4. _____ forecasts about the tidal upsurge and other important news.
5. ICT is now very much _____ for our personal and professional life.

Broad Question:

1. Explain the process to collect information through internet.
2. Explain the process of storing information.
3. Explain how to exchange information through technology.
4. Why do we need to acquire the proper skills to find, understand, evaluate, and use information?

LEARNING METARIALS

1. How information sharing helps people to their work write in the given box :



2. Write the functions of a meteorologist

3. Write about the new information technology's example in the given box :

| | |
|----------|---|
| 1. Robot | 5 |
| 2 | 6 |
| 3 | 7 |
| 4 | 8 |

Topic 2 Collection, Storage and exchanging information

One Sentence Answer

1. What is called Internet?
2. What are the basic steps for collecting information?
3. How can we store information?
4. Write four storages devices name.
5. How can we exchange information?
6. Through what we exchange information?
7. What do you understand by SMS and SNS?
8. Write the names of four search engines?
9. What do you understand by Web Page?
10. Write down the full form of given words :
Internet, E-mail, SMS, SNS, CD, ICT, WWW, HTTP, TV, DVD.
11. Write the name of two Web Pages.
12. When did people start to use Internet? When did Bangladesh start to use it?

Fill in the blanks:

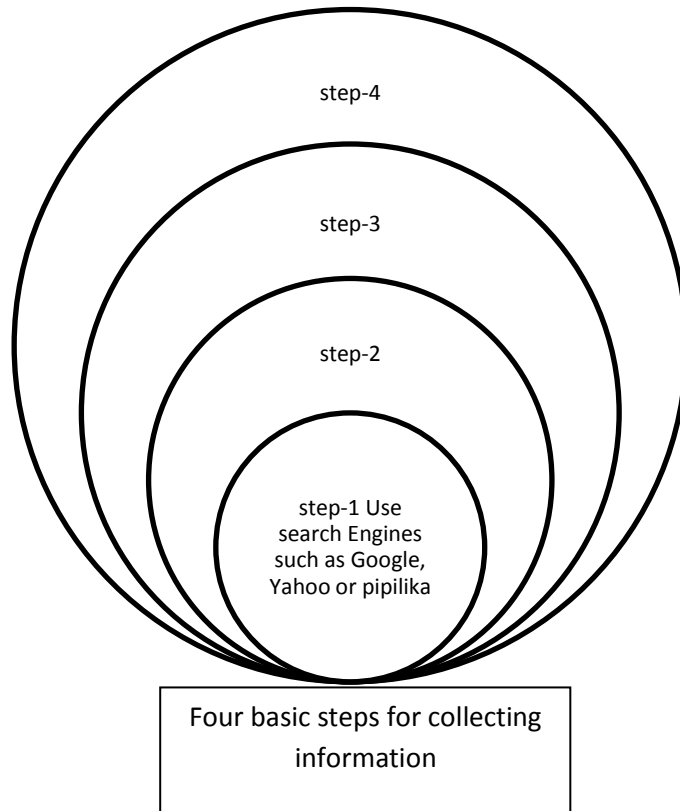
1. Now we can collect the information by using _____ in the very shortest time.
2. We can share self _____ and collected information with the help of internet.
3. Memory card is a name of _____.
4. It is important to _____ information for future use.
5. SNS means _____.

Broad Question:

1. Why is information sharing important? Discuss with example.
2. How does ICT help to our study? Write in five sentences.
3. How does ICT help to our day-to-day life?
4. Write down five importance of using Internet.
5. Write the negative effects of using Internet Technology.

LEARNING METARIALS

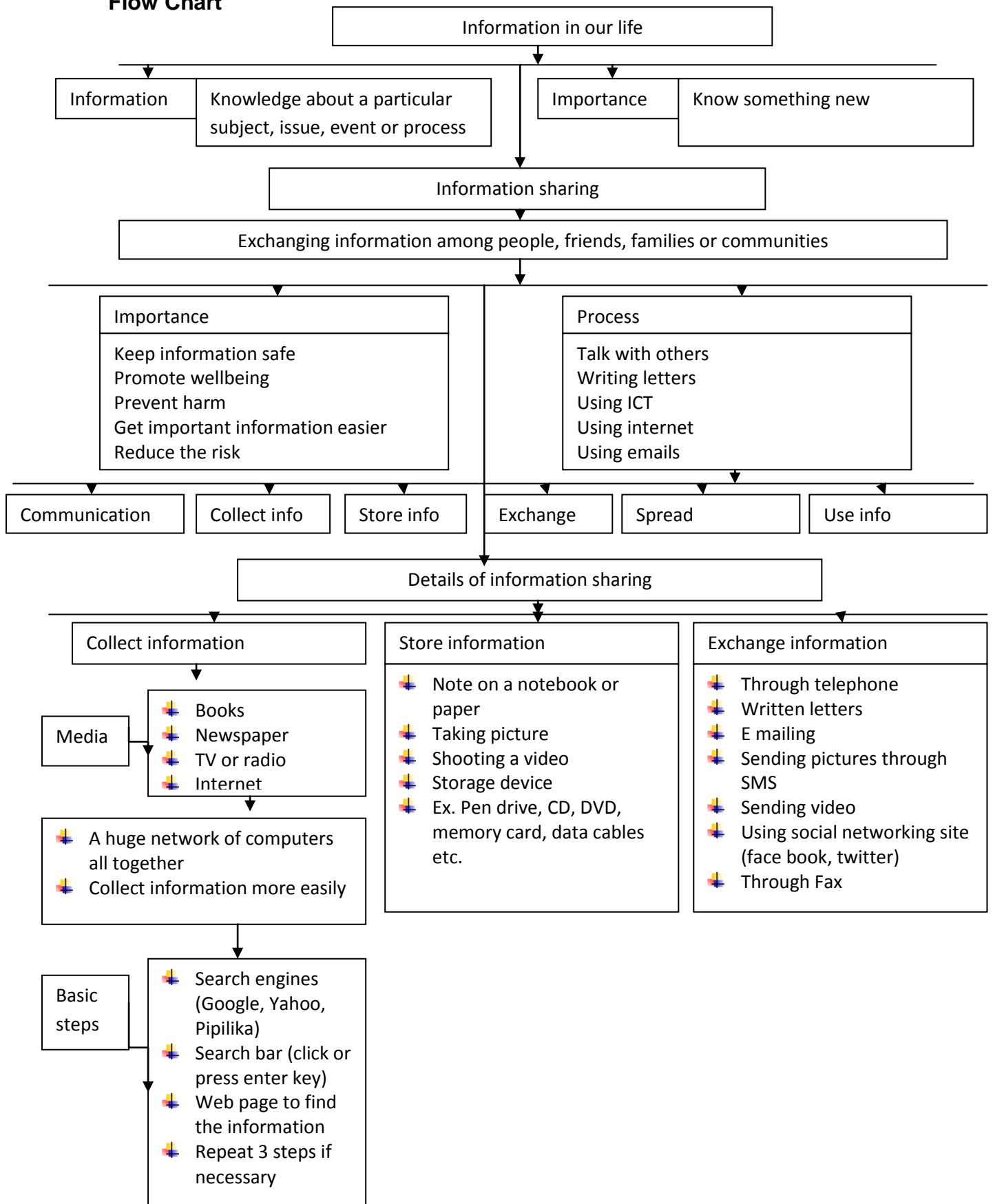
1. Write the basic steps for collecting information through internet :



2. Write the name of 5 storage devices

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

Flow Chart



Chapter 11

Weather and Climate

Topic 1: Relationship between Weather and Climate

One Sentence Answer

1. Define weather?
2. Define climate?
3. How do we decide which crops we should cultivate?
4. How does weather forecast help in our life?
5. When does the rainy season start in Bangladesh?
6. When does the rainy season end in Bangladesh?

Fill in the blanks

1. _____ is the temporal state of the sky and the atmosphere at a certain place.
2. Weather is _____ in different places and at different time of the day.
3. _____ is the changes of usual weather pattern in a certain area.
4. Climate can also be described as the _____ weather condition of a certain area for a long period of time.
5. We can predict the daily weather based on the _____ and knowledge of climate on our place.
6. Weather is _____ all the time.
7. Weather is the _____ of the sky and the atmosphere of a place for a short time.
8. Climate is the general condition of _____ of a place for many years.
9. The rainy season of Bangladesh starts in the middle of _____ and ends in _____.
10. The onset date of monsoon rain _____ every year.

Board Questions

1. Write the relationship between weather & climate.
2. Describe about the seasons of Bangladesh.

Topic 2: Air Pressure and Wind

One Sentence Answer

1. What is air pressure?
2. When does air blow from the ocean to land?
3. How does weather forecast help you in your life?
4. From which direction does the monsoon wind blow in winter season?
5. From which direction does the monsoon wind blow in rainy season?
6. When does the land of Bangladesh remain warmer than the Bay of Bengal?

Fill in the blanks

1. _____ is the force produced by the weight of the air pressing down on the Earth's surface.
2. _____ blows from high pressure to low pressure area.

4. The lower the humidity, the _____ moisture is in the air.
5. The southwest seasonal wind brings much moisture from the _____ during rainy season.
6. The northeast monsoon wind brings cold dry air from the northern land in _____.

Board Questions

1. Write description of the components of weather.
2. Write the function of moisture in the air.

LEARNING MATERIALS

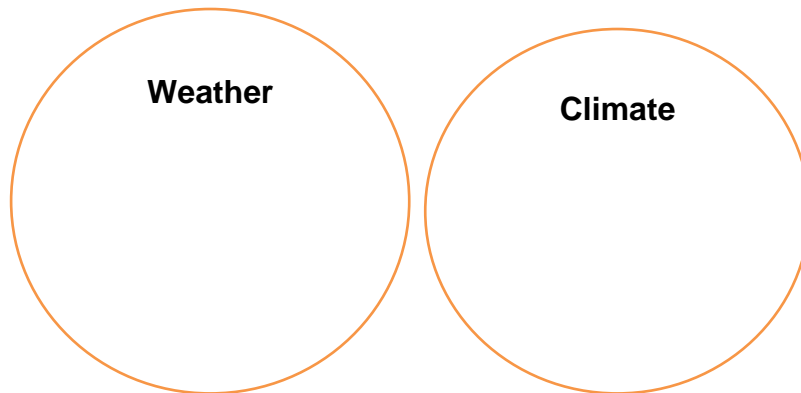
1. Relationship among the components of weather-



| | |
|--------------|--|
| Temperature | |
| Humidity | |
| Wind | |
| Cloud | |
| Rain | |
| Air pressure | |

2. Separate the components of weather and climate-

Day, Night, Light, Wind, Cloud, Sky, Air pressure, Sun, Humidity, Temperature, Rain.



Topic 4: Extreme weather

One Sentence Answer

1. What is extreme weather?
2. What is heat wave?
3. What is cold wave?
4. What is drought?
5. Which part of Bangladesh faces draught?
6. Name three natural disasters of Bangladesh.
7. What is nor'wester?
8. What is the other name of nor'wester?
9. What is the size of nor'wester?
10. What is tornado?
11. What is the usual size of tornado?
12. What is cyclone?
13. What is the size of cyclone?
14. How is cyclone creating?

Fill in the blanks

1. A heat wave is a prolonged period of _____ hot weather.
2. When one of the weather components changes beyond a normal range, we experience the severe and/or _____ weather.
3. The severe heat wave can cause _____ crop failures.
4. A usually long period of dry weather is called as _____.
5. In every rainy season about _____ of Bangladesh is flooded, and extreme years, _____ of land can be submerged in flood water.
6. Bangladesh faces drought especially in the _____ part of the country.
7. Thunderstorms which are common during summer in our country are known as _____.
8. Nor'wester grows by surface _____.
9. The size of Nor'wester is from several kilometres to _____ km.
10. Nor'wester is the vertically grown up convective cloud called _____ that brings thunder and lighting, heavy rain, hail, gusty/ squally winds and even tornadoes.



11. The other name of Nor'wester is _____.
12. _____ is a narrow, violent, funnel-shaped column of spiral winds.
13. The size of tornado is usually less than _____.
14. _____ is a large low pressure system and revolving storm that consists of numerous thunderstorms.
15. The size of cyclone is _____ km.
16. Cyclones are created by getting heat and water vapour from the warm _____ and the Bay of Bengal.

Board Question

1. Write the causes of flood and drought.
2. Describe the characteristics of nor'wester & cyclone.
3. Describe the causes of tornado.

LEARNING METERIALS

1. Show the causes and effects



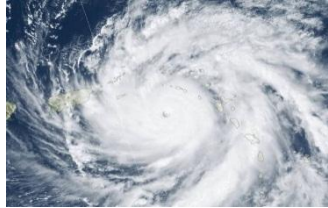
| | |
|---|--|
| <p>Drought</p>  | <p>Flood</p>  |
| Cause- | Cause- |
| Effect- | Effect- |
| Remedy- | Remedy- |

2. It was hot summer day. Suddenly at afternoon sky became dark. The wind blew from northwest. The dark cloud was seen at the northwest sky. The velocity of wind was 20km. After few minutes. It was raining cats and dogs with hail storm.

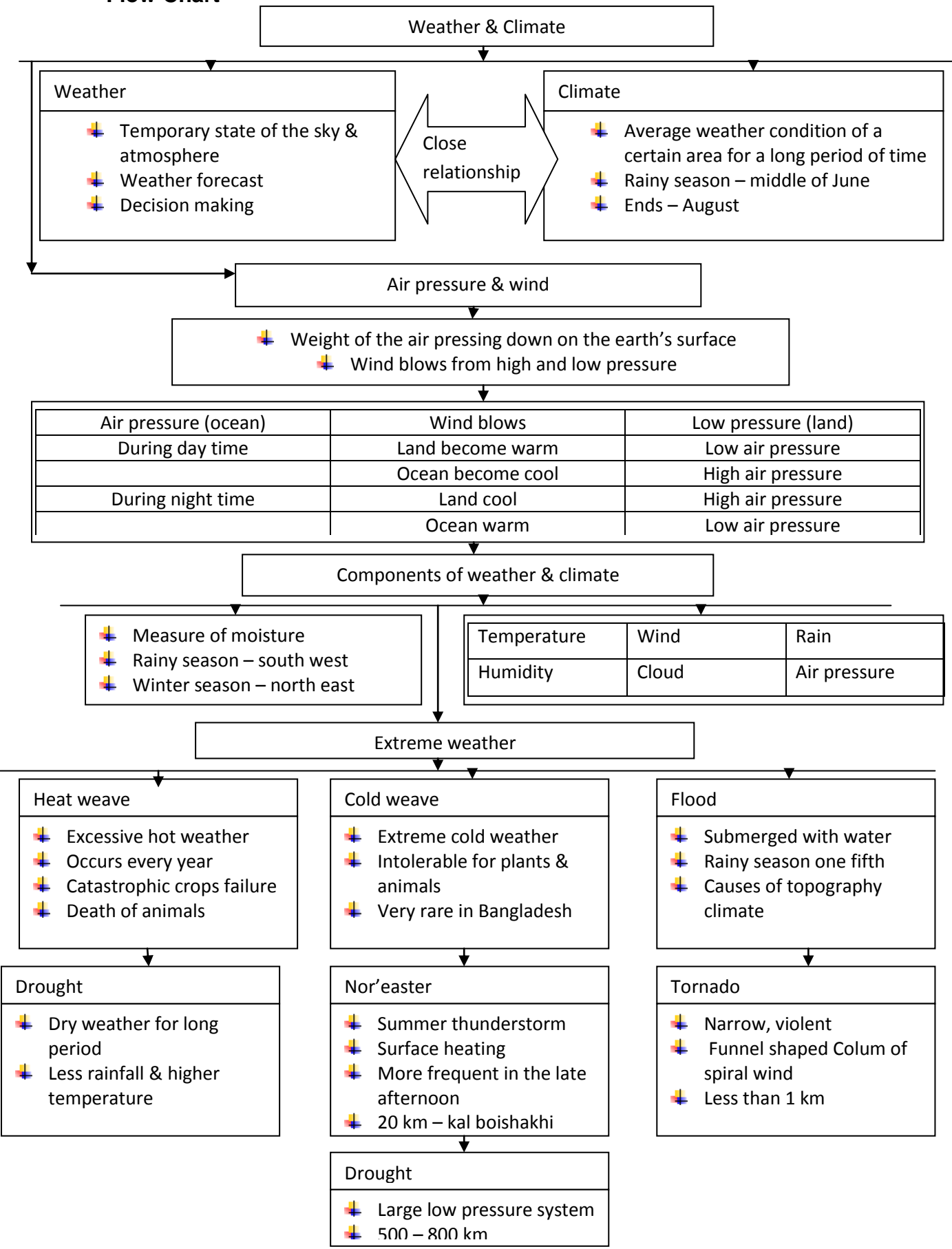
Find out the related word with Nor'wester and write down as a list-

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6. Write the characteristics of Nor'wester, Tornado & Cyclone

| Nor'wester | Tornado | Cyclone |
|---|---|---|
|  |  |  |
| Time- | Time- | Time- |
| Size- | Size- | Size- |
| Other name- | Cause- | Cause- |
| Effect- | Effect- | Effect- |

Flow Chart



Chapter 12 Climate change

Topic 1: Global Warming

One Sentence Answer

1. Define climate.
2. What is climate change?
3. What is global warming?
4. What is the main cause of global warming?
5. Write down one effect of global warming on the environment.
6. Give an example of climate change in Bangladesh.
7. What did scientists find out about average global temperature?
8. Why is the climate of our earth changing gradually?

Fill in the blanks

- 1) The average weather pattern for a long period of time is called _____.
- 2) The actual weather _____ varies with in the normal range to extreme condition for a particular region.
- 3) _____ is a significant and persistent change in the climate and its variability.
- 4) The climate of an area does not change _____.
- 5) We can compute the _____ global temperature.
- 6) Average global temperature fluctuate every _____.
- 7) The average global temperature is increasing _____.
- 8) The gradual increase of the earth's temperature is called _____.
- 9) _____ can lead to other change in climate conditions.

Board Questions

1. Define global warming. Write the causes and effects of global warming.
2. How does environment suffer in the global warming? Describe.

LEARNING MATERIALS

1. Draw a graph according to the following data of the temperature of last 5 years:

| Year | Data of temperature |
|------|---------------------|
| 2012 | 14.52 |
| 2013 | 14.56 |
| 2014 | 14.64 |
| 2015 | 14.79 |
| 2016 | 14.836 |

Graph:



Topic 2: Greenhouse effect:

One Sentence Answer

- 1) What is green house?
- 2) What is greenhouse effect?
- 3) What is greenhouse gas?
- 4) Give three examples where fossil fuel is used.
- 5) What are the factors that measure weather change in a particular region?
- 6) What is called the gradual increase of the Earth's average temperature?
- 7) Which factors should be observed in order to confirm global warming?
- 8) What is atmosphere?
- 9) What is the natural phenomenon of climate change?

Fill in the blanks

- 1) A greenhouse is made up of _____.
- 2) The glass of greenhouse traps the _____ heat.

- 3) A _____ helps to keep plants warm and alive in extreme cold weather.
- 4) An _____ is the layers of air that surround Earth's surface.
- 5) Earth's atmosphere does the same thing as the _____.
- 6) During the day time, the sun shines through the _____.
- 7) Earth's surface warms up with the _____.
- 8) Earth's surface cools by releasing the _____ back into the air.

Board Questions

1. Define greenhouse. What is green house effect? Write the greenhouse concept with figure.
2. Describe the greenhouse process.
3. Write the names of greenhouse gases. How does the greenhouse effects on earth's temperature? Describe.

LEARNING METERIALS

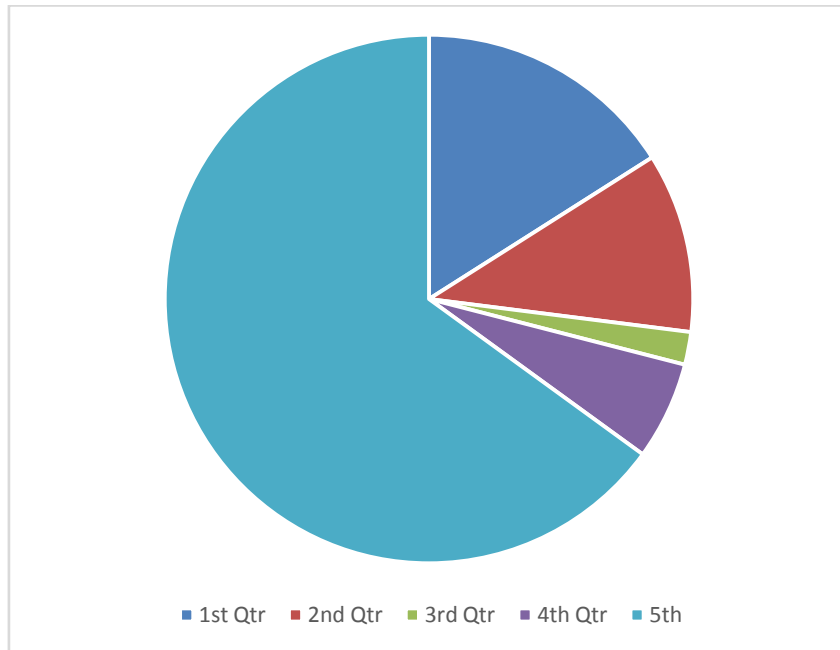
1. Separate the advantage and disadvantage of greenhouse effect:

- Green house maintains the temperature.
- It helps in growing off season crops.
- Summers will be warmer with natural disasters for green house.
- Water level balance on the earth will get disturbed.
- Greenhouse effect filters unwanted solar energy & radiates back harmful rays.
- Life and ecosystem will get disturbed for green house.

| Advantage | Disadvantage |
|-----------|--------------|
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2. Complete the pie chart according to percentage of greenhouse gases:

Methane (16%), Carbon dioxide (forestry and other land use-11%), F-gases(2%), Nitrous oxide (6%), Carbon dioxide (fossil and industrial processes-65%)



3. Describe the picture and write the effects of air pollution in our environment:



Topic 3: Climate Change:

One Sentence Answer

1. How many strategies can we take to confront the risks of climate change? What are they?
2. What is climate change adaptation?
3. What is climate change mitigation?
4. Natural disasters occur for many reasons. What does play the major role in the occurrence of natural disasters?
5. Which country is one of the most disaster prone countries of the world?
6. Give five examples of natural disaster of Bangladesh.

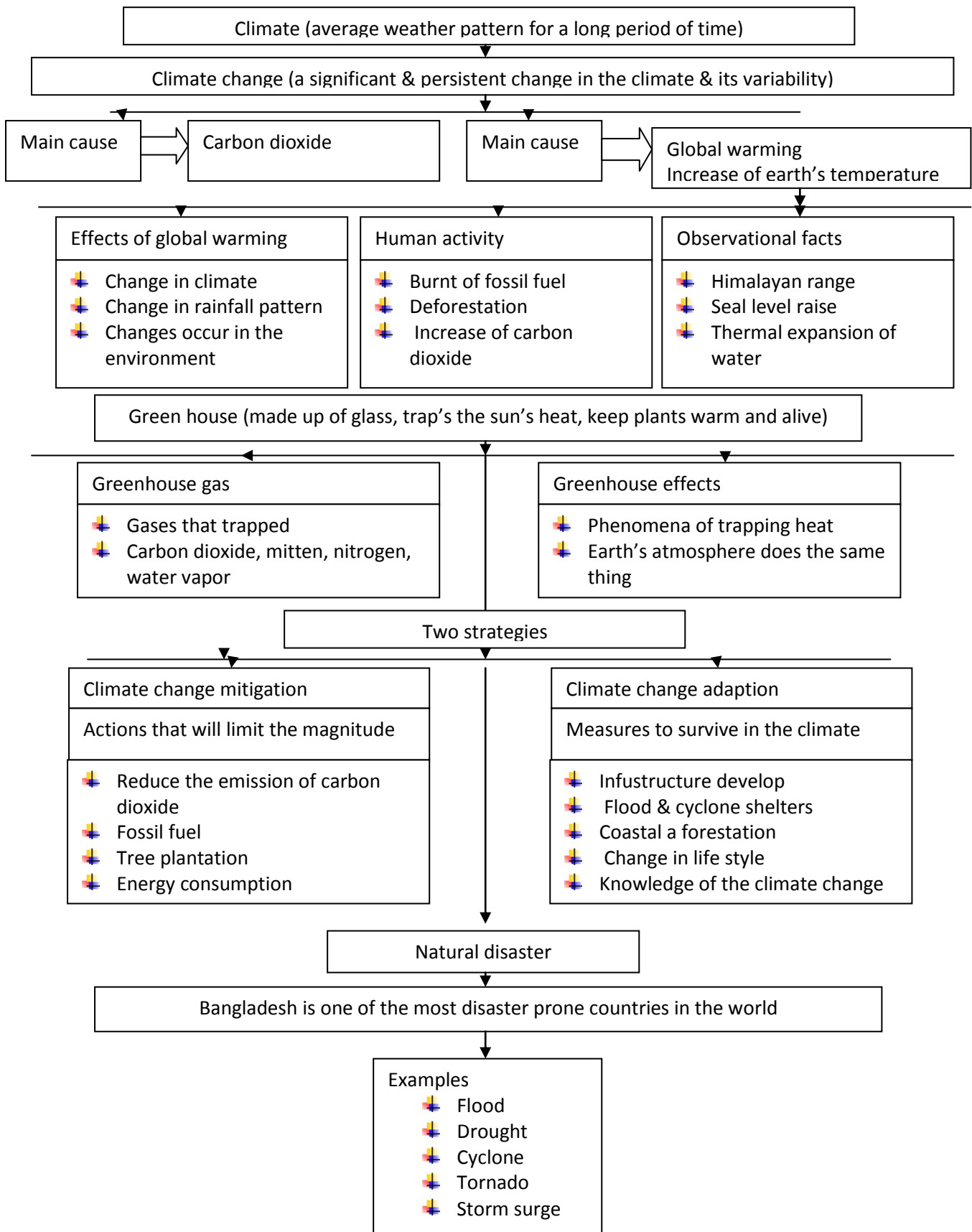
Fill in the blanks

- 1) A lot of _____ emits into the air due to the burn of these fossil fuel.
- 2) Due to the deforestation, the absorption of _____ by the tree is decreasing.
- 3) Confronting the risks of climate change, we can take _____ strategies.
- 4) The main cause of climate change is the increased _____ in atmosphere.
- 5) We can reduce energy consumption in our daily life to reduce _____ emission.
- 6) The measure to survive in the changing climate is called climate change _____.
- 7) Climate change leads to _____ different natural disasters.
- 8) Renewable energy sources such as _____ and wind can reduce the carbon dioxide emission.
- 9) Bangladesh is one of the most _____ countries in the world.
- 10) We should know about climate and be prepared for face the _____ risks.
- 11) The _____ is to lower the risk against actual or unexpected climate change effect.
- 12) The increased carbon dioxide traps much _____.
- 13) _____ predict that climate change worsen in many ways.

Board Questions

1. Name the two strategies that adapted for decreasing the global warming. Write the climate change mitigation process.
2. Describe the process of climate change adaption.

Flowchart



Chapter – 13

Natural resources

Topic- Our Resources

One Line Questions:

1. What are the resources?
2. How many types of resources?
3. What is called a resource found in nature that people can use to meet their needs?
4. Who can't make natural resources?
5. What type of resources are minerals and fossil fuel?
6. What do we get from natural resources?
7. What is called a resource that is made by people?
8. Where do man-made resources come from?
9. What kind of resource is paper?
10. We use paper for writing. What is paper made from?
11. What is needed to make glass?

Fill in the blanks:

1. We can find many things _____ us.
2. Resources are something that can be used by people for _____ or help.
3. Natural resource is a resource found in _____ that people can use to meet their _____.
4. Sunlight, soil, water and plants are _____ resources.
5. Minerals and _____ fuel are natural resources.
6. Natural resources _____ us with food, clothing _____ and energy.
7. Man-made resource is a resource that is made by _____.
8. Man-made resources come from _____.
9. People use the trees to make _____ things.
10. Trees are _____ down to make _____ to build houses.
11. We can change _____ into paper.
12. People use the _____ to make glass.

Short questions:

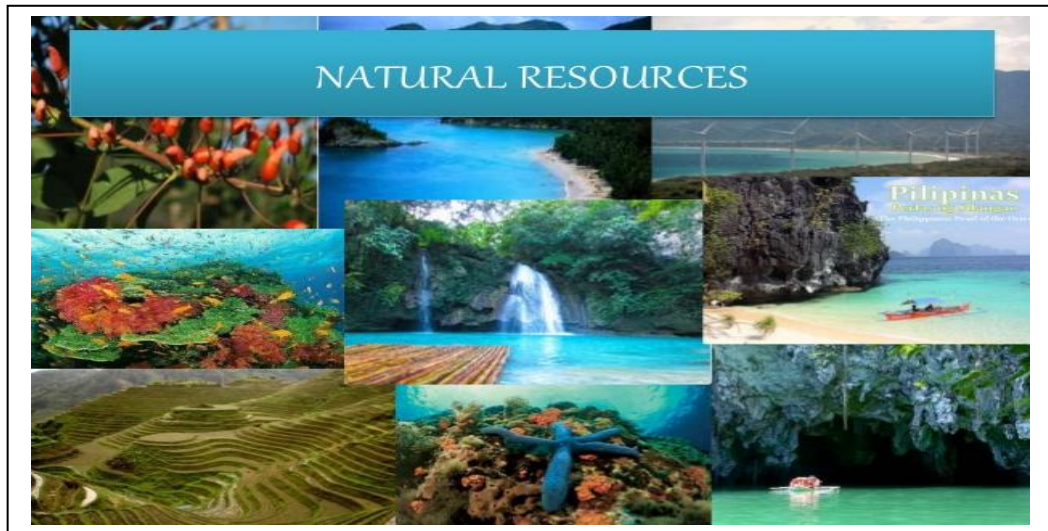
1. Write down the classification of things around us.
2. How do man-made things made of?
3. Define resources. Write down two types of resources.
4. What are natural resources? Write its five examples.
5. Write down the object's name that natural resources provide us with.
6. Define man-made resources. Give its five examples.
7. Write down three uses of tree.
8. Where can we find sand? Write its one use.

Board Questions:

1. What do you know about natural resource? Write down two importance of natural resources in our life.
2. Write down five names of natural resources. Write down 3 sentences about their use in our daily life.

LEARNING METERIALS

1. Write down the examples of types of natural resources to see the following picture:



| Resources | Examples |
|-----------|----------|
| Water | |
| Oil | |
| Forests | |
| Rocks | |
| Minerals | |
| soil | |
| animal | |

2. Read the passage and describe the importance of human made resources in your own words:

Man-made resources are important because they can be conserved for future is produced by using skill, knowledge and technology at its best. Man- made resources are the signs of progress and development and are the refined from of natural resource, building, furniture etc are examples of man- made examples.

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Topic- Wise use of Nature Resources

One Line Questions:

1. Who depend on natural resources to make new things and produce energy?
2. What kind of resource is natural gas?
3. What is called non-renewable resource?
4. Give two examples of non-renewable resource?
5. Which are resources can be replaced or reused?
6. Which do you mean by renewable resource?
7. What is turbine?
8. What is the way of preserving natural resource?

Fill in the blanks:

1. People depend on natural resources to make _____ things and produce _____.
2. The _____ for natural resources is increasing.
3. Oil, Coal and _____ gas are limited.
4. People have to find _____ resources.
5. Renewable resources can be _____ or _____.
6. Renewable resources can be used as _____.
7. The _____ is an important and unlimited energy resource.
8. People use solar panels to get _____ energy from sunlight.
9. _____ is another alternative energy resource.
10. When the wind turns the _____ of a wind turbine _____ is produced.
11. We have to use natural resources _____ for conserving it.
12. Conserving natural resources helps us _____ environment pollution _____.

Short Questions

1. Why do people depend on natural resources?
2. Write down the reasons behind increasing demand for natural resources.
3. Write down three limited natural resource's names.
4. Write down the result of using non- renewable resources.
5. Write 3 names of renewable resources.
6. What type of resources is sunlight? Write down its one example.
7. Write down one use of wind.
8. What is 3R?
9. Give an example of wise use of natural resources.

Board Questions:

1. Why do people need to use natural resources wisely? Write down in 4 sentences.
2. What are alternative resources? Why do renewable resources can be used as alternative resources?
3. What is solar panel? Write down 5 uses of it.

LEARNING MATERIALS

1. Describe the alternative resources by using picture :



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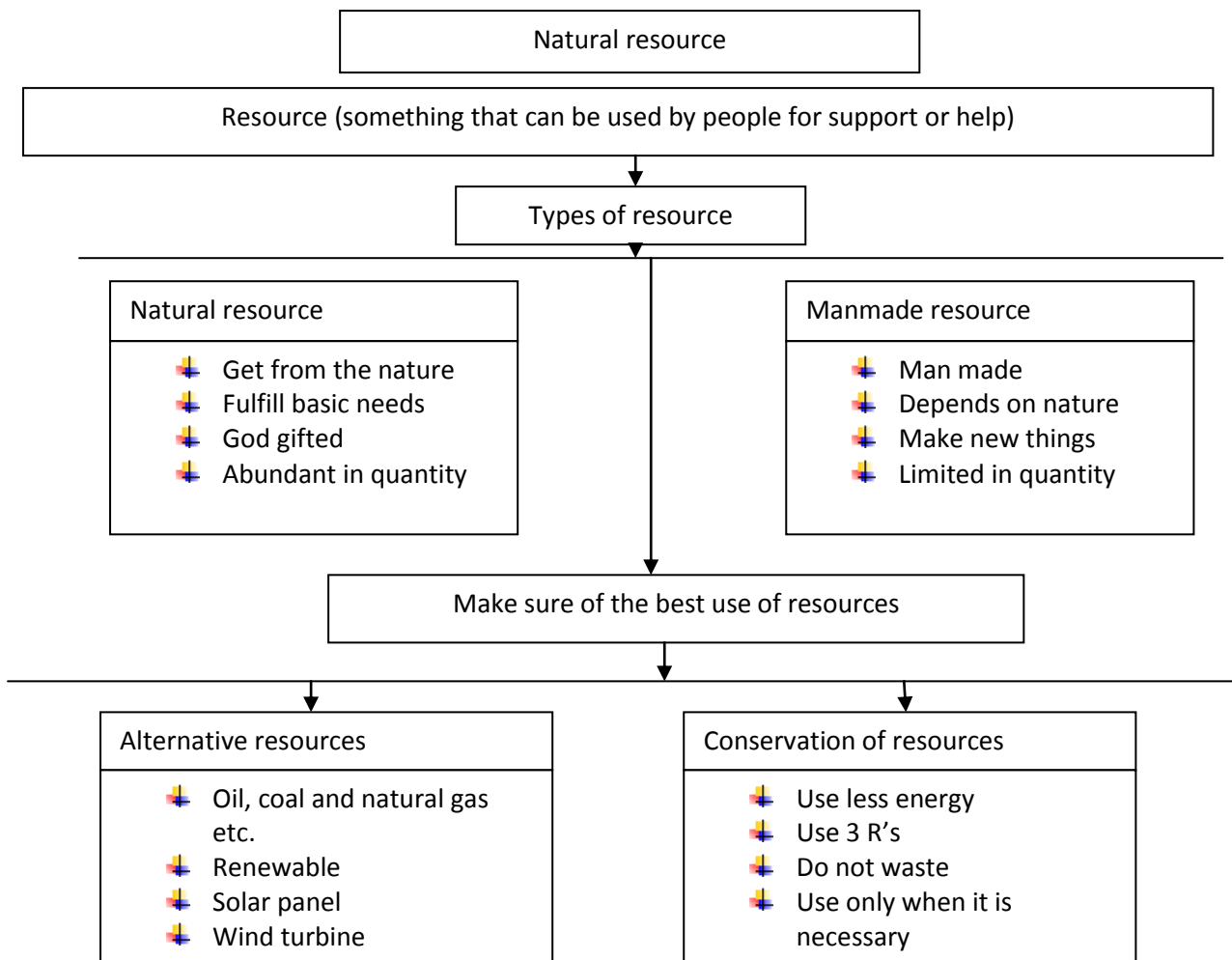


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2. Share your idea to your classmate how can you conserve natural resources by using picture:



Flow Chart



Chapter 14 Population and natural Environment

Topic 1: Population Growth and Human Needs

One Line Questions

1. In early 1800s, how many people were there on Earth?
2. Write the definition of population?
3. What was the population of Bangladesh in 2011?
4. How many populations are there in 1970?
5. What will be the population of Bangladesh in 40 years?
6. How much did the population increase in the last forty years from 1970 to 2011?
7. Write the names of three basic needs of human being.
8. What is called density of population?
9. How is the population density measured?
10. What is population census?
11. Which need increased due to population growth?
12. What issues we face as the population grows gradually?
13. What does spread faster in denser population?

Fill in the blanks

- 1) World human population is steadily _____.
- 2) In the last 200 years, world population has grown by almost _____ crore.
- 3) The population of Bangladesh almost _____ in the last 40 years.
- 4) _____ is the number of people per square kilometre land area.
- 5) Total area of Bangladesh is _____ square kilometres.
- 6) Germs spread _____ in denser populations.
- 7) There were almost 100 crore people on Earth in early _____.
- 8) Today, almost _____ crore people live in the world.
- 9) The more the population _____ the more human needs increase.
- 10) The population of Bangladesh _____ crore 97 lac 72 thousand and 364 as of 2011.
- 11) Population density can found by _____ total population by total area of a country.
- 12) Population density in Bangladesh is very _____.
- 13) Additional needs will cause _____ problems in our life.
- 14) We may have less chance of getting _____ and education service.

Board Questions

1. Define population. What are the basic needs? Write the negative impacts of over population.
2. What is population density? How do we calculate population density? Write the number of population of previous 5 years.

LEARNING MATERIALS

1. Write the total population of Bangladesh in different years

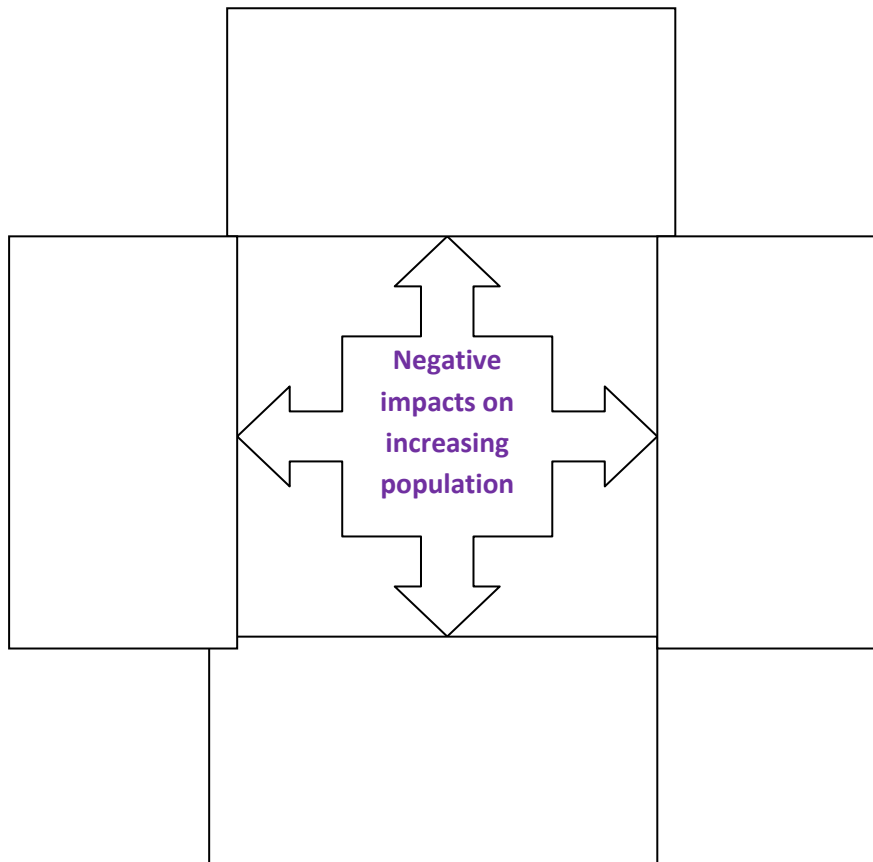
| Year | Total population of Bangladesh |
|------|--------------------------------|
| 1961 | |
| 1974 | |
| 1981 | |
| 1991 | |
| 2001 | |
| 2011 | |

2. Select the core human needs for growing population from the given pictures

| | | | | |
|-----------|-----------|------------|----------|---------|
| Cloth | foods | Cell phone | Balloons | Housing |
| Chocolate | Ice-cream | Education | Medical | Land |

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3. Show the impacts of increasing population



4. Causes of the disease people get affected for growing population



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Topic 2: Impact of Population Growth on Environment:

One Line Questions

1. What are the bad effects of the gases emitted from factories?
2. Why do people clearing forests?
3. Some dishonest people destroying the Sundarbans. What is changed by this?
4. What can cause soil erosion and landslides?
5. What is used to grow more plants well and produce more food?
6. Why is fossil fuel burnt in power plants and factories?
7. What causes air pollution?
8. What happened due to air pollution?

Fill in the blanks



- 1) To cultivate more crops or farm more livestock for growing people clear _____.
- 2) The loss of forests causes the changes of _____.
- 3) Deforestation can cause soil erosion and _____.
- 4) _____ fertilizers and _____ are used in agriculture to grow plants well and produce more food.
- 5) Excessive use of chemical fertilizer and pesticide cause _____ pollution and water pollution.
- 6) To produce more _____ and goods fossil fuels are burnt in power plants and factories.
- 7) Harmful gases emitted from factories and vehicles cause air pollution that results _____ and acid rain.

Board Questions

1. What do you mean by over population? Describe the impacts of overpopulation on environment.
2. People are destroying forests and open lands. What would be the impacts on it on our environment?

LEARNING MATERIALS

1. Show the causes of air and water pollution in Bangladesh

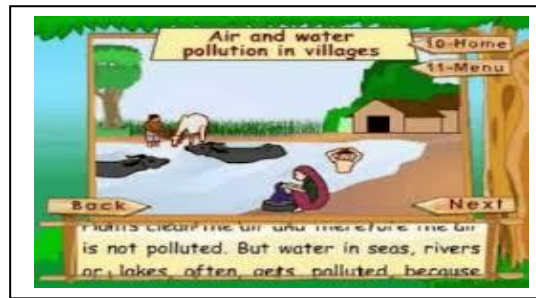
| | |
|--|---|
|  <p>air pollution</p> |  <p>water pollution</p> |
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2. Differentiate the pictures in terms of air and environmental pollution and cleanliness



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3. Look at the picture and write the causes of water pollution in village



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Topic 3: Role of science and technology to solve Population problems:

One Line Questions

- 1) Give three examples of negative impact of population growth on the environment.
- 2) How does science and technology contribute to produce more food?
- 3) What will be the effect on food due to the increase of population?
- 4) What is renewable energy?
- 5) What is non-renewable energy?
- 6) What is alternative energy?
- 7) What is meant by self-employment?
- 8) Write two features of hybrid car.
- 9) What is biotechnology?
- 10) Why is biotechnology used?

Fill in the blanks

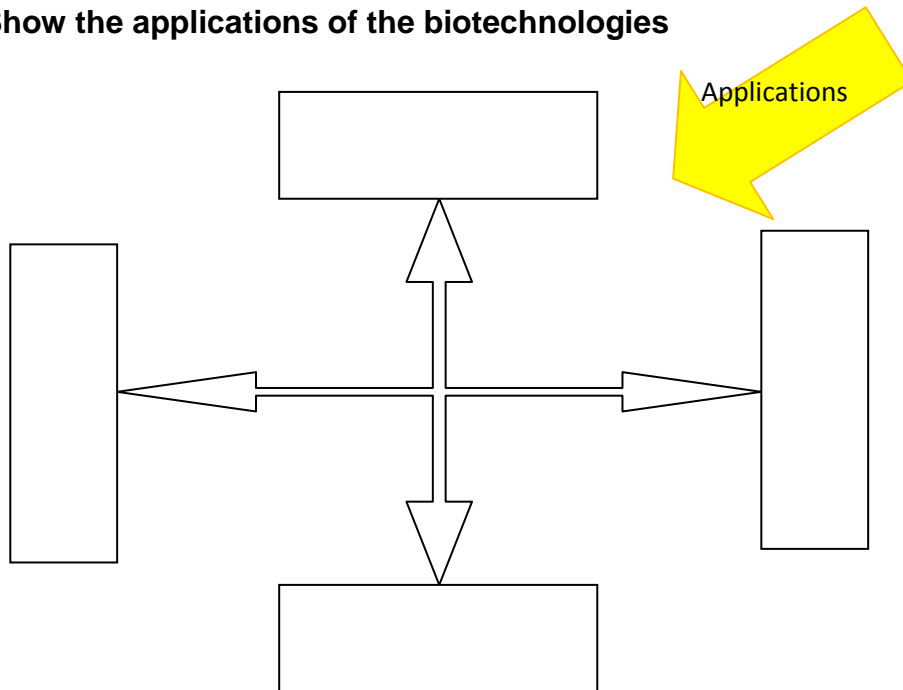
1. To meet the needs of growing population _____ and _____ help to produce more food
- 1) Fossil fuel is burnt in power plants and factories to produce more _____.
- 2) Hybrid cars use both _____ and _____ as their two sources of energy.
- 3) People use agricultural _____ that helps people growing a lot of food in the shortest period.
- 4) _____ is used to grow plants that are more nutritious, disease resistant and more productive.
- 5) People have developed technology such as _____ that uses renewable resources to produce electricity.
- 6) New mode of transportation such as _____ car has been developed by using science and technology.
- 7) The two sources of energy that hybrid car uses are _____ and electricity.
- 8) Hybrid car can help reducing the use of _____ fuel.
- 9) Learning science and technology help us to change our _____ and to solve _____ growth issues.

Board Questions

1. Define science and technology. What are the contributions of science and technology to solve the overpopulation problem? Describe.
2. How does biotechnology help to grow more plants and foods? Write the importance of it.
3. Describe the importance of learning science?

LEARNING MATERIALS

1. Show the applications of the biotechnologies



2. Importance of learning science and technology



3. Write some points on how can we make our environment clean



Flow Chart

