

FOOD FOR GOOD HEALTH
Chapter -6

1. Balanced diet/ Healthy Diet:

A healthy diet or balance diet is a diet that contains the right amounts of all food groups. It includes fruits, vegetables, grains, dairy products and protein. It does not include too much or too little of any kind of food.

Nutrients:

Nutrients are essential for growth, reproduction and good health. There are two types of nutrients:

- a. Macro nutrients
- b. Micro nutrients

1. Balance diet:

Importance of balance diet:

There are six food elements in a balance diet. Balance diet is important because:

- a. Body need proper nutrition to remain healthy.
- b. Without proper nutrition, our body becomes more prone to disease, infection, fatigue and poor performance.
- c. Children suffering from malnutrition run the risk of growth and developmental problems.
- d. Eating too much food may cause over weight issues.
- e. Balance diet leads to a good physical and a good mental health.
- f. It helps in proper growth of the body.
- g. Balance diet increase the ability to fight or resist disease.
- h. Also it increases the capacity to work.

2. Food preservation:

Food preservation is a process/method by which food is kept from spoilage after harvest. There are three ways of food preservation:

- a. By sun drying
- b. By cold storage.
- c. By using salt, sugar, vinegar and oil.

The ways of food preservation:

People have used scientific methods to preserve foods. There are three main ways to preserve food. They are:

- a. By sun drying:
Crops like rice, wheat, pulses can be stored in this way.
- b. By cold storage:

Fish meat vegetables and fruits can keep in good condition for some days in refrigerator. Vegetables, fishes, meats can also be preserved in the cold storage in order to supply in the market throughout the year.

c. By using salt, sugar, vinegar and oil:

Fishes also can be preserved by using salt. We can also use sugar vinegar or oil to preserve olives, plums and mangoes etc.

Besides jam, jelly, pickles are processed from fruits and preserved in air tight pot.

The importance of food preservation:

- a. Food preservation can stop wastage and slow down spoilage of food.
- b. It helps prevent the growth of bacteria that causes spoilage.
- c. Food preservation makes the seasonal food available throughout the year.
- d. It makes easy to transport food to far place.
- e. Food preservation can add variety to the diet.

3. Food to eat limited:

Food containing artificial colors and chemicals:

Effects of adding color and chemicals:

- a. Food containing artificial colors may have health problems such as cancer, attention deficit disorder and hyper activity.
- b. Foods containing chemicals can cause many diseases such as dysfunction of liver and kidney.
- c. People may get cancer by those chemicals.

Name of disease caused artificial color and chemicals:

- a. Cancer
- b. Attention deficit
- c. Dysfunction of liver
- d. Dysfunction of kidney.

Junk Food:

A food containing excessive sugar, salt, and fat and can be prepared and served easily is called junk food.

Example: Burger, Pizza, Potato chips etc.

Effects of Junk food:

- a. Taking too much junk food may cause nutritional deficiencies.
- b. It may cause over weight and obesity.
- c. It can cause memory and learning problems.
- d. Junk food can cause chemical changes that can lead to depression.
- e. Junk food can make a person impatient and also create uncontrollable cravings which leads us to the obesity.

Science (Teacher: Shabrina Khanom)

Class 5

Healthy lifestyle

Health – The state of being free from illness or injury.

Lifestyle – The way in which a person lives.

Healthy Lifestyle – The way of living which helps us for being free from illness or injury.

Disease – A disorder of structure or function in a human, animal or plants.

Infectious diseases – The diseases that are caused by the entrance of germs into the body.

Ways of spreading infectious diseases:

- ☒ From person to person
- ☒ Through air
- ☒ Through coughs or sneezes
- ☒ By using same glass, plates [students will make list]
- ☒ Bite of insects
- ☒ Bites of animals
- ☒ Eating contaminated food and water.

Types of infectious diseases:

1. Air borne diseases: The diseases which are caused by germs and transmitted through the air due to coughing, sneezing or talking. Example: Corona, Chicken Pox.

2. Water borne diseases: The diseases which are caused by taking water contaminated with germs. Example: Diarrhea, Cholera.

3. Contact diseases: The diseases which are caused by direct or indirect contact with an infected person. Example: AIDS, Ebola.

4. Diseases transmitted by animals and insects: The diseases which are transmitted by animal and insect bites. Example: Dengue, Rabies

[Students will make list of diseases]

The way to prevent infectious diseases:

- ☒ By improving immune system
- ☒ Taking balanced diet
- ☒ Drinking pure water
- ☒ Getting vaccination
- ☒ Covering face during cough

[Students will make list]

Puberty – the time in life when our body begins to develop and change from the body of a child to the body of a teenager.

Changes in the body during puberty:

- ☒ Growing taller
- ☒ Changing shape of body
- ☒ Pimple
- ☒ Change in voice
- ☒ Oiler skin
- ☒ Increasing body weight

[Students will make list]

Taking care during puberty:

- ☒ Maintaining personal hygiene
- ☒ Sharing problems with parents and teachers.

Subject: Science (Class-5)

Chapter-7

Healthy Lifestyle

Sometimes we become sick due to the attack of several diseases. To stay healthy, we have to prevent and cure these diseases. It is known that “Prevention is better than cure”. So we have to be conscious about such type of diseases.

#Infectious Diseases



#Definition: The diseases which can be caused by the entrance of germs such as bacteria, virus, fungi etc. are called infectious diseases. Examples: Chicken pox, Measles, AIDS, Malaria etc.

[N.B. – The most recent infectious disease caused by Corona Virus is COVID-19.]

#Ways of spreading infectious diseases

Infectious diseases can be spread by the following ways:

- Through air from person to person when someone sneezes or coughs
- Using the glass, plate, chair, table, clothes, toilet etc. that has been used by infected person
- By the bites of insects such as mosquitoes and animals such as dogs
- Eating contaminated food
- Drinking contaminated water

#Types of infectious diseases

There are many types of infectious diseases as follows:

Type of disease	Definition	Examples
Airborne diseases	The diseases caused by germs and transmitted through air due to coughing, sneezing or talking are called airborne diseases.	<ul style="list-style-type: none">• Swine Flu• Measles• Chicken Pox• Tuberculosis• Influenza
Waterborne diseases	The diseases caused by taking water contaminated with germs are called waterborne diseases.	<ul style="list-style-type: none">• Diarrhoea• Cholera• Dysentery• Typhoid
Contact diseases	The diseases caused by direct or indirect contact with an infected person are called contact diseases.	<ul style="list-style-type: none">• Flu• Ebola• Measles• AIDS (It is a different kind of infectious disease caused by HIV virus.)
Diseases transmitted by animals or insects	The diseases caused by the bites of animals or insects are called animals or insects transmitted diseases.	<ul style="list-style-type: none">• Rabies(Through the bites of infected dogs)• Malaria(Through mosquito bite)• Dengue(Through mosquito bite)• Plague(Through the bites of infected rats)

The ways to prevent infectious diseases

The ways of prevention are given below:

- Improving our immune system by eating a balanced diet.
(**Immune system:** Immune system is the body's defense system against infections)
- Preventing the spread of diseases by adequate ventilation in our room
- Using safe water
- Washing hands regularly
- Covering faces with tissue, handkerchief or elbow during coughing or sneezing
- Removing objects that hold water such as tub, tyre or canister around our house
- Getting vaccination
- Avoiding unhygienic foods

How to cure infectious diseases

The ways to cure infectious diseases are given below:

- Taking rest
- Eating nutritious foods
- Drinking enough safe water
- Taking medicine if we have mild fever or headache
- Visiting a doctor if we have continuous fever, vomiting or serious headache

Puberty

***Definition:** The time in life when our body begins to develop and change from the body of a child to the body of a teenager is called Puberty.

***Age limit:** In girls → 8 to 13 years

In boys → 9 to 15 years

*** Types of changes happen:**

- Physical
- Emotional
- Behavioural

Changes in the body during puberty

The following changes happen in this period:

Boys	Girls
<ul style="list-style-type: none">• Growing taller• Increasing body weight• Sweating more• Changing of voice• Well shaping of muscles• Getting beard and moustaches	<ul style="list-style-type: none">• Growing taller• Changing the shape of the body• Increasing body weight• Sweating more• Getting oilier skin• Having pimples on faces• Well shaping muscles (but not as much as boys)

Taking care of the body during puberty:

In this period someone might feel anxious or upset. He/She can follow the given ways to take care of himself/herself :

- Maintaining personal hygiene
- Taking nutritious food
- Not feeling worried about it as it is a natural change
- Talking to parents, teachers or elder brother or sister

Questions for self evaluation:

- Complete the whole exercise from your text book .
- Answer the following questions:
 1. What is infectious disease?
 2. How do infectious diseases spread?
 3. How many types of infectious diseases are there? Define each kind with examples.
 4. How can you prevent infectious diseases?
 5. What are the ways to cure infectious diseases?
 6. What is puberty? Write down its age limit for boys and girls individually. How many types of changes occur in this period?
 7. What changes happen in puberty period of boys and girls?
 8. How can anybody take care of himself/herself during the puberty period?

Chapter – 7
Healthy Lifestyle

A) Infectious Diseases:

1. What is infectious diseases?

Infectious diseases are the diseases caused by the entrance of germs such as bacteria, viruses, fungi, into the body. The diseases can spread directly or indirectly from one person to another.

2. Ways of spreading infectious diseases:

- a. Some diseases can pass from person to person through the air when someone coughs or sneezes.
- b. We may get infectious diseases by using glass, plate, chair, table, clothes, toilet, etc. that used by an infected person.
- c. Some infectious diseases are transmitted by bites of insects such as mosquitoes, and animals such as a dog.
- d. Another way of causing infectious diseases is the eating of contaminated food and drinking contaminated water.

3. Types of infectious diseases + 4. Prevention and cure of infectious diseases:

❖ **Airborne Diseases:**

This disease caused by germs and transmitted through the air due to coughing, sneezing or talking are called airborne diseases.

Example: Swine flu, measles, chickenpox, tuberculosis, and influenza.

Common ways to prevent airborne diseases:

There are some common ways to prevent airborne diseases such as:

- a. Avoid close contact with people who have active symptoms of diseases.
- b. Stay home when you are sick. Don't let vulnerable people come in close contact with you.
- c. If you must be around others wear a face mask to prevent spreading or breathing in germs.
- d. We can also prevent infectious disease by covering face during coughs and sneezes with tissue, handkerchief or elbow and keeping our environment clean.
- e. Wash your hands thoroughly and especially after sneezing or coughing.
- f. We can keep our body healthy by eating a balanced diet and using safe water.
- g. We can also prevent the spread of diseases by adequate ventilation in our room.
- h. Avoid touching your face or other people with unwashed hands.
- i. Getting vaccination and avoiding unhygienic foods helps reduce the risk of the disease.

❖ **Waterborne Diseases:**

The diseases caused by taking water contaminated with germs are called waterborne diseases.

Example: Diarrhoea, Cholera, Dysentery, and Typhoid

Common ways to prevent waterborne diseases:

1. We have to drink only clean and safe water
2. Can use the antiseptic liquid in our bathing water to prevent waterborne diseases
3. We should regularly wash our hands with soap after returning home, after using the toilet, before and after preparing food, before eating or drinking anything.
4. Ensures food is washed and thoroughly cooked
5. Avoid eating stale cooked food, unrefrigerated food kept exposed outside for long hours.
6. The vaccinations for immunization against preventable diseases like Typhoid, Hepatitis A, polio etc.

❖ **Contact Diseases:**

The diseases caused by direct or indirect contact with an infected person are called contact diseases.

Example: Flu, Ebola, Measles ect.

- **AIDS:** Acquired Immune Deficiency Syndrome
- **HIV:** Human Immunodeficiency Virus

Q. Why is AIDS called a different kind of infectious disease? Explain it.

AIDS is a different kind of infectious disease caused by HIV. We will not be infected with AIDS even if we touch an HIV infected person or use things that an HIV infected person uses. We can even Hands shake with an HIV infected person. That is why AIDS is called a different kind of infectious disease.

❖ **Diseases transmitted by animals and insects:**

Some infectious diseases are transmitted by animal and insects' bites.

Example: Rabies is transmitted through bites of rabies-infected dogs. Malaria and

Dengue are caused by mosquito bites.

Common ways to prevent animal and insect-transmitted diseases:

1. We can use bug or insect repellent.
2. Check pets regularly for ticks.
3. We have to vaccinate our family and our pets regularly

4. Discards pet waste in tight bags
5. We should avoid rough play as it can lead to scratches and bites
6. We should change our dress after walking with our dog.

2. Puberty:

Q. What is Puberty:

Puberty is the time in life when our body is to develop and changes from the body of a child to the body of a teenager.

Q. When puberty starts?

Puberty starts between age 8 and 13 in girls and age 9 and 15 in boys.

Q. During puberty what types of changes occur for boys and girls?

In the time of puberty physicals, emotional and behavioral changes occur for boys and girls.

Changes in the body during puberty:

There are some common changes occur in puberty. These are

1. Growing taller
2. Changing the shape of the body
3. Sweating more
4. Getting oiler skin and often pimples the face.
5. The body weight increases during puberty.

In the case of male children changing of voice, well shaping of muscle and getting bearded and mustaches are common changes.

And for a female child, their muscles also start shaping but not as much as boys.

Taking care of the body during puberty:

Puberty is a natural change so everyone should go through this. In the time we should take care of our bodies in the following ways. Such as:

1. Maintain personal hygiene
2. Should take nutritious food
3. Having a sound sleep
4. Taking bath regularly
5. If we worried about something then we should talk to our parents, teachers or our elder brothers or sisters

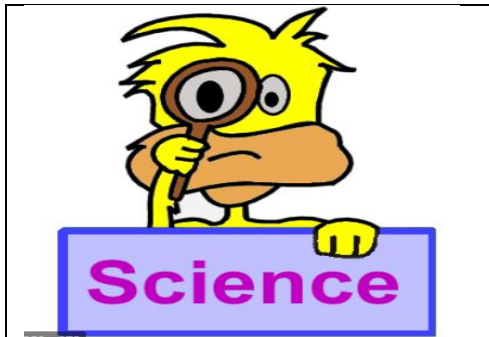
Subject: Science (Class-5)

Chapter-9

Technology in Our Life

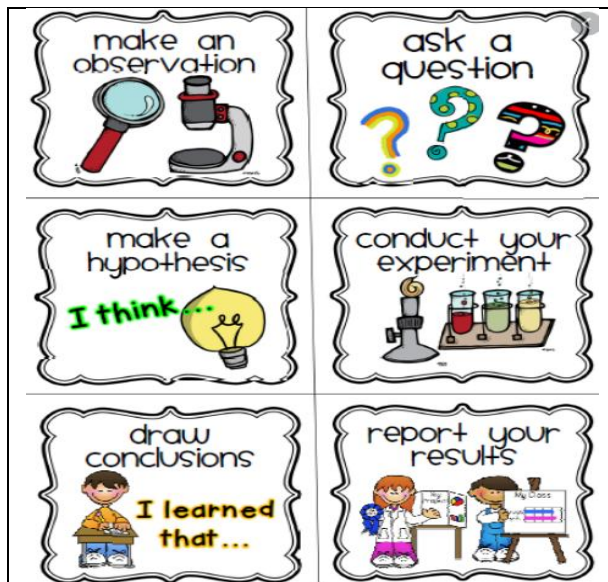
Everywhere we can see the wonders of science & technology. Science & technology have made our lives easier than before. So we should have a clear idea about this science & technology.

#Science:



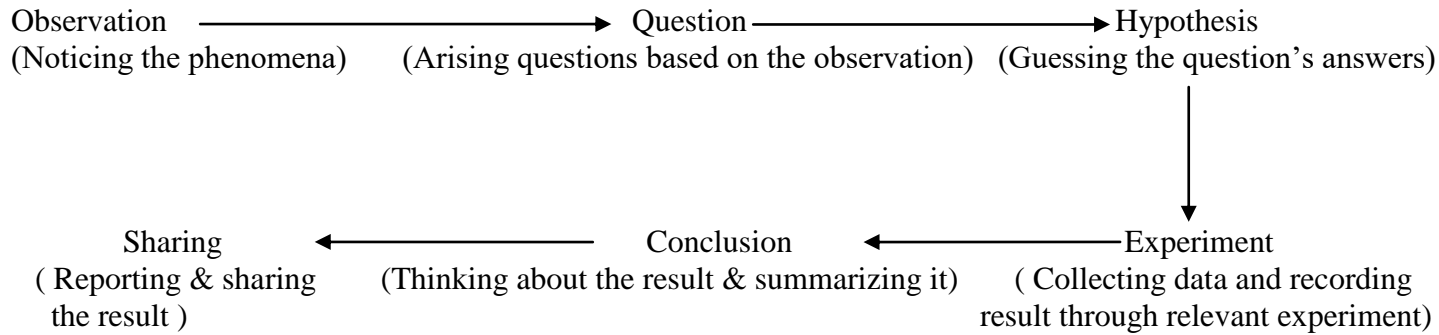
#Definition: Science is the knowledge or study about the natural world. It is based on the facts learned through observation and experimentation to describe and explain natural phenomena.

#Scientific method:



Scientists always follow the above scientific method.

So the process will be:



#Technology:



#Definition: Technology is the practical application of science to solve the problems of our lives. Examples: Refrigerator, TV, Mobile, Light etc.

*Technology is used in the following sectors :

- Education
- Medical care
- Communication
- Transportation

#Relationship between science and technology:



The above flow chart shows the relationship between science and technology. There is a great relationship between them. Science gives us the information from the natural phenomena. Using this information people invent many technologies to solve practical problems for improving their lives. Thus technologies are developed based on the scientific theories.

Example: A telescope helps us to see the far objects. This telescope is an example of technology and it is made from the scientific information.

* Technology played a vital role in the period of great Industrial Revolution in 18th century.

#Industrial Revolution: A rapid major change in an economy (as in England in the late 18th century) marked by the general introduction of power-driven machinery or by an important change in the prevailing types and methods.

#Technology in Agriculture: Technology is greatly used in Agricultural Sector. People have developed different types of agricultural technology to meet their demand of food.

Mechanical Technology	Chemical Technology	Biotechnology
<ul style="list-style-type: none"> The machines used in agriculture. Helps to produce a lot of food in the shortest period of time. Examples: <ol style="list-style-type: none"> Tractor Irrigation Pump Threshing Machine 	<ul style="list-style-type: none"> The chemical fertilizers and pesticides to increase the production. Fertilizer helps plants grow well and produce more food. Chemicals are used to resist harmful pests and weeds. Example: Urea 	<ul style="list-style-type: none"> A technology that uses living things to make new product for human welfare. Example: Agricultural biotechnology. It is a way to make plants with special qualities. This technology allows farmers to grow plants that are more nutritious, more resistant to pests and more productive.

#Negative Effects of Technology:



There are some negative effects of technology besides its positive effects. The negative effects are given below:

- While producing electricity, coals are burnt in power plants. It causes global warming and acid rain. Thus air pollution is increased.
- Chemical fertilizers and pesticides are used to grow more food. It causes soil and water pollution.
- Horrible weapons are the applications of scientific knowledge. Bombs, tanks or guns are such type of weapons that are harmful for our society.
- Sometimes using technology turns into an addiction. It decreases our productive works and kills our valuable times.

#Questions for self evaluation:

- Complete the whole exercise from your text book.
- Answer the following questions:
 1. What is Science?
 2. Explain Scientific Method using a flow chart.
 3. What is Technology? Give Examples.
 4. Describe the relationship between Science and Technology.
 5. What is Industrial Revolution?
 6. How many types of technologies are used in agriculture? Explain.
 7. Write down the negative effects of technology.