

LESSON PLAN:: 01

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	NUTRITION IN PLANTS	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Nutrition – nutrients	1			Food components, carbohydrates, proteins, lipids
2	Modes of nutrition	1			Autotrophic – heterotrophic
3	Photosynthesis	3			Definition, factors, equation and importance
4	T S of leaf, Stomata	2			Diagrams, guard cells
5	Chlorophyll	1			Green pigments
6	Heterotrophic plants	2			Cuscuta, insectivorous plants
7	Saprotrophs	2			Fungi, bread mould, mushrooms
8	Symbiosis	1			Lichens, legume plants, rhizobium
9	Sun is the ultimate source of energy	1			Energy, light energy
10	Nutrients replenished in the soil	1			Manure, fertilizers, nitrogen bacteria
TOTAL		15			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked/bridged before teaching the current concept)

Autotrophic, chlorophyll, hetero tropic, host, insectivorous, nutrient, nutrition, parasite, photosynthesis, saprotrophs, saprophytic, stomata, guard cells

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

1. Define nutrients, photosynthesis, stomata, symbiosis
2. Differentiate autotrophs – heterotrophs
3. Explain importance of photosynthesis, saprotrophs, symbiosis
4. Draw neat labelled diagrams of T S of leaf and stomata
5. Appreciate photosynthesis and green plants

TEACHING LEARNINGPROCESS

INDUCTION/INRTODUCTION:(Generating interest, informing students about the outcomes and expectations for the lesson)

By asking questions to students I will create interest on this lesson

1. Where do we get food?
2. If there is no plan what will happen?
3. Why do we cannot prepare our food by one?

EXPERIENCE AND REFLECTION: (Task / Questions that helps student a explore the concept and connect with their life)

1. What are the food resources?
2. Some plants grow and twin on other plants. Why?
3. Son is the ultimate resource for energy for all living organisms. explain?

Explicit Teaching/Teaching Modelling (I Do)	Group Work (We Do)	Independent Work (You Do)
<ul style="list-style-type: none"> ⇒ Demonstrate experiments that is <ol style="list-style-type: none"> 1. Presence of stars in leaves indicates occurrence of photosynthesis 2. Observing fungi on bread under the microscope ⇒ Explain the concepts of this lesson by using different videos collected by me from YouTube ⇒ Explain and draw how to draw the TS of leaf stomata easily ⇒ Conduct a Field Trip to show Cuscuta Plant 	<ul style="list-style-type: none"> • Divide the students into 4 to 5 groups for giving the work given below <ol style="list-style-type: none"> 1. Draw a flow chart that shows mode of nutrition 2. Draw neat label diagrams of TS of leaf and stomata of leaf on a chart 3. Collect mushrooms and exhibit in classroom 	<ul style="list-style-type: none"> ⇒ Not important points daily in class notes and learn ⇒ Write notes daily and left the important concept that is <ol style="list-style-type: none"> 1. Modes of nutrition 2. Autotrophs – heterotrophs 3. Photosynthesis 4. Importance of photosynthesis 5. Parasitic plants 6. Insectivorous plants 7. Saprotrophs 8. Symbiosis

TLM (digital & Print)

1. Textbook
2. Blackboard – chalk pieces
3. Iodine solution, meals, test tubes
4. Potted plants, Iodine solution
5. Microscope, rotten bread, slide, cover slip
6. Different videos from YouTube channels

Check for understanding questions.

Fractural

Define the terms 1. Autotrophs 2. Hetero trophs 3. Photosynthesis 4. Symbiosis

Open ended / Critical thinking.

1. If there is no plans or photosynthesis what will happen?
2. Sun is the ultimate source of energy for living organisms – explain?

Student practice questions & Activities.

1. Why do living organisms take food?
2. Distinguish between a parasite plant and saprophyte
3. How would you test the presence of starch in leaves?

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

1. Draw a neat labelled diagram of TS of leaf and stomata?
2. Collect the pictures of parasitic plants, insectivorous plants
3. Give a brief description of the process of synthesis of food in green plants?

Signature of the Teacher

Signature of the Visiting Officer

Signature of the Headmaster

LESOONPLAN:: 02

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	NUTRITION IN ANIMALS	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Digestion	1			Large food complex molecules – small food simple molecules
2	Various modes of feeding	1			Chewing, swallowing, capturing, sucking
3	Digestive system in humans	1			Alimentary canal, digestive glands
4	Teeth, tooth decay	4			Milk teeth, permanent teeth, types of teeth
5	Roll off epiglottis	1			Pharynx, flap like valve, choking
6	Tongue and Saliva	1			Test buds, saliva acts on starch
7	Stomach	1			Mucous, hydrochloric acid, wider part
8	Small intestine	4			Bile juice, pancreatic juice, intestinal juice
9	Digestion in ruminants	1			Grass eating animals, rumination, cellulose
10	Nutrition in Amoeba	1			Pseudopodia, food vacuole
TOTAL		16			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Absorption fatty acids amoeba amino acids esophagus, pancreas, food vacuoles, gallbladder, premolar, molar, incisor, canine, liver, milk teeth, permanent teeth, egestion, microvilli, saliva, liver

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

- 1.** Define digestion tooth decay, absorption microvilli adjacent rumination?
- 2.** Differentiate between milk teeth and permanent teeth
- 3.** Explain role of epiglottis, process of digestion, digestion in ruminants
- 4.** Draw neat label diagrams of human digestive system and types of teeth?
- 5.** Appreciate the role of epiglottis, types of teeth, Taste buds

TEACHING LEARNING PROCESS

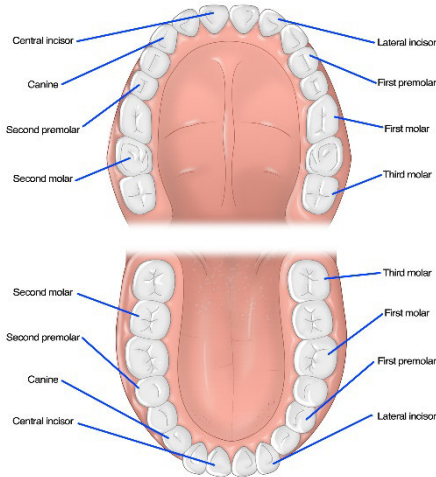
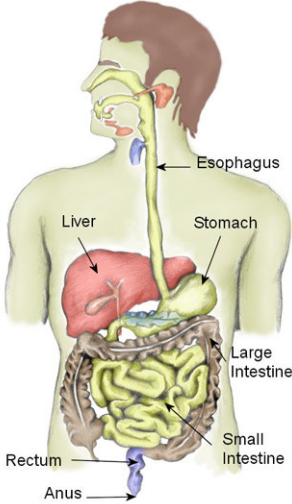
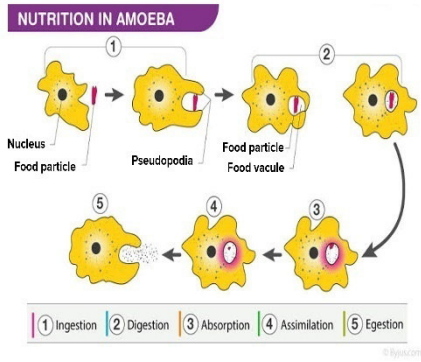
INDUCTION / INTRODUCTION:(Generating interest, informing students about the outcomes and expectations for the lesson)

Hanging human digestive system chart and asking questions to students for creating interest on this chapter

- 1.** Do you know the parts of digestive system?
- 2.** What is the use of this system? how will it work?

EXPERIENCE AND REFLECTION: (Task / Questions that helps student a explore the concept and connect with their life)

- 1.** What is meant by tooth decay? What are the precautions for tooth decay ?
- 2.** What is the use of tongue?
- 3.** Why don't we talk or laugh while eating? Do you know choking?

Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>⇒ Demonstrate experiments that is</p> <ol style="list-style-type: none"> 1. To observe types and functions of teeth? 2. Location of different taste buds on tongue? 3. Saliva acts on starch <p>⇒ Explain important concept that is by using charts and videos are the following</p> <ol style="list-style-type: none"> 1. Digestive system – parts 2. Process of digestion 3. Types of teeth 4. Nutrition in Amoeba 5. Digestion in ruminates <p>⇒ The labelled diagram of human digestive system</p>	<ul style="list-style-type: none"> • Divide students into four to five groups and allot work given below <ol style="list-style-type: none"> 1. Make a table that shows different types of teeth and their function 2. Identify the location of taste buds on your tongue 3. Draw a neat labelled diagram of human digestive system 	<ul style="list-style-type: none"> • Note the important points daily in class notes and learn • Write need notes daily and learn following concepts <ol style="list-style-type: none"> 1. Digestion 2. Various modes of feeding 3. Types of teeth 4. Roll of epiglottis 5. Process of digestion 6. Nutrition in Amoeba <ul style="list-style-type: none"> • Draw neat labelled diagram of human digestive system
		

TLM (digital & Print)

- Textbook
- Blackboard - chalk pieces
- Chart of human digestive system
- Different videos collected by me from YouTube
- Model of teeth
- Chart showing testbuds

Check for understanding questions.

Factual

1. Define the terms digestion, teeth decay, rumination
2. List out the various modes of feeding and their examples
3. What is meant by tooth decay and explain

Open ended / Critical thinking.

1. What food habits do you follow after reading this chapter?
2. Why are vitamins necessary in the diet?
3. Which fruits or vegetables should be eaten regularly to get vitamins?

Student practice questions & Activities.

1. What are villi? What is their location and function?
2. Where is the bile produced? Which component of the food does it help to digest?
3. Why we get instant energy from glucose?

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

- 1.** Draw a neat labelled diagram of human digestive system?
- 2.** Make a table about the types and functions of teeth?
- 3.** Make a list of good food habits in a chart

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Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN:: 03

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	HEAT	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Introduction	1			Winter –woollen– warm, summer – cotton – coolness
2	Hot and cold	1			Definition, units
3	Measuring temperature	1			Thermometer, 0 ⁰ to 100 ⁰ centigrade, 32 ⁰ -180 ⁰ F
4	Clinical thermometer	1			Digital thermometer
5	Laboratory thermometer	1			-10 ⁰ – 110 ⁰ C
6	Six maximum minimum thermometer	1			Mercury, alcohol
7	Conduction of heat	1			Solids
8	Conductors – insulators	1			Metals, non-metals
9	Convection of heat	1			Water (liquids), Air(gasses)
10	Radiation	1			Some heat comes to us (no required medium)
TOTAL		10			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Hot, cold, thermometer, clinical thermometer, digital thermometer laboratory thermometer, conduction, convection, radiation, conductors, insulators, sea breeze, land breeze

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

- 1.** Define the terms temperature, conductors, insulators, conduction, convection?
- 2.** Differentiate between conductors and insulators, conduction and convection?
- 3.** Do conduction of heat?
- 4.** Explain three modes of transfer of heat that is conduction, convection and radiation
- 5.** Appreciate the qualities of Mercury

TEACHING LEARNING PROCESS

Induction / Introduction(Generating interest, informing students about the outcomes and expectations for the lesson)

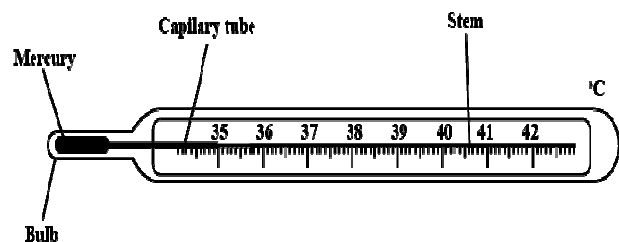
By showing clinical and laboratory thermometers to students I will asking some questions to create interest on this lesson

- 1.** What are these?
- 2.** What are the uses of these thermometers?
- 3.** Have you heard about temperature?
- 4.** Have you ever suffered from fever?

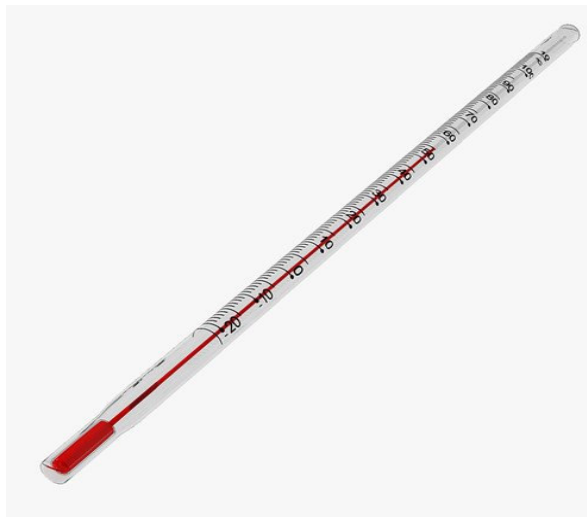
EXPERIENCE AND REFLECTION: (Task / Questions that helps student a explore the concept and connect with their life)

- 1.** Why do we wear woollen clothes in winter?
- 2.** Why do we wear cotton clothes in summer?
- 3.** Why do the most desert animals live in burrows?
- 4.** Why do the hands of cooking pans make with plastic or wood?

Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<ul style="list-style-type: none"> • I will demonstrate different activities present in the textbook that is <ol style="list-style-type: none"> 1. Conduction of heat 2. Convection of heat 3. Radiation of heat 4. Conductors – insulators • Explain the concepts of heat, temperature, thermometer, types of thermometers, Conduction, convection and radiation by using different videos from YouTube channel. • Draw and explain the diagram and structure of thermometer 	<p>⇒ Divide the students into four Two five groups for giving group works given below</p> <ol style="list-style-type: none"> 1. Measure the temperature of your classmates with the help of clinical thermometer 2. Draw the neat labelled diagram of clinical thermometer, laboratory thermometer, six maximum minimum thermometer 	<ul style="list-style-type: none"> • Note down the important points daily and learn • Write the notes daily and learn them • Do experiment of conduction of heat • Draw diagram of clinical thermometer and laboratory thermometer



CLINICAL THERMOMETER



LABORATORY THERMOMETER



DIGITAL THERMOMETER

TLM (digital & Print)

- Textbook
- Blackboard - chalk pieces
- Clinical thermometer, laboratory thermometer, digital thermometer, six maximum and minimum thermometer
- Different videos from YouTube
- Some conductors and some insulators

Check for understanding questions.

Factual

- 1.** Define the terms temperature, conduction, convection?
- 2.** Differentiate between conductors and insulators?
- 3.** What are the three modes of heat transmission?

Open ended / Critical thinking.

1. If there is no insulators of heat what will happen?
2. What will happen if the temperature of body increases?
3. How does heat reaches to us from sun without any medium?

Student practice questions & Activities.

1. State similarities and differences between the laboratory thermometer and the clinical thermometer
2. Explain the activity how does heat travels through solids?

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

- 1.** Draw neat label diagram of a clinical thermometer and laboratory thermometer
- 2.** List out the characteristics of mercury and alcohol
- 3.** List out the conductors and insulators of heat in your home

Signature of the Teacher

Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN:: 04

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	ACIDS AND BASES	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Acids	1			Sour to test, Latin word = acera = sour
2	Bases	1			Bitter to test, soapy to touch
3	Natural indicators	1			Turmeric, China rose petals, lichens, litmus
4	Blue litmus and red litmus	2			Acids turns blue to red, base to green
5	China rose petals test	1			Acid – dark pink, base- green
6	Acid rains	1			CO ₂ , SO ₂ , NO ₂ , Carbonic acid, sulfuric acid, nitric acid
7	Neutralization	2			Phenolphthalein, Pink – colorless
8	Indigestion	1			Hydrochloric acid, milk of magnesia, magnesium hydroxide
9	Ant bite	1			Formic acid - baking soda
10	Soil treatment	1			Quick lime- CaO, Slacked lime –Ca(OH) ₂
TOTAL		12			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Acid, base, salt, neutralization, quick lime, indicators, litmus paper, lichens, acid rains, indigestion, milk of magnesia, ant bite, soil treatment

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

1. Define the terms acid, base, indicators, neutralization.
2. Demonstrate blue and red litmus paper test to acids and bases
3. Explain neutralization in everyday life like indigestion, ant bite, soil treatment
4. Differentiate between acids and bases
5. Draw and prepare greeting cards with turmeric and soap water

TEACHING LEARNINGPROCESS

INDUCTION / INTRODUCTION:(Generating interest, informing students about the outcomes and expectations for the lesson)

By using some natural materials like tamarind, lemon, soap, surf, salt etc. and I will ask some questions to create interest on this lesson

1. What is the test of these materials?
2. Name the substances which are sore taste? Why?
3. Which are bitter in test? why?

Experience and Reflection(Task / question that helps students explore the concept and connect with their life)

1. Why do the farmers sprinkle the quick lime in their fields ?
2. Can you hear the word as it rains? Explain
3. Why do our Parents keep baking soda on the place of ant bite ?

Explicit Teaching / Teacher Modeling (I Do)

Group Work (We Do)

Independent Work (You Do)

- Demonstrate different activities on acid, base, indicators and neutralization
- Explain the differences between acids and bases
- Explain the process of neutralization
- Explain the effects of acid rains
- Explain treatment of ant bite
- Explain indigestion
- Explain soil treatment by using different videos from YouTube

- Create 4 to 5 groups and giving the group works given below
 1. Collect the natural acid containing substances
 2. Collect the natural base containing substances
 3. Collect and test the acids and bases with natural indicators

- Students not the important points daily
- Write the notes on important concepts and learn daily



LITMUS PAPERS



fruticose lichen

LICHENS



TLM (digital & Print)

- Textbook
- Blackboard and Chalk pieces
- Blue and red litmus papers
- Turmeric powder and soap water
- Test tube
- China rose petals
- Acids and bases
- Videos from You Tube channels

Check for understanding questions.

Factual

1. Define the terms acids, basis, indicators.
2. Give examples for acids and bases
3. Write the word equation for neutralization

Open ended / Critical thinking.

1. Explain acid rains
2. Why do we take milk of magnesia at the time of indigestion

Student practice questions & Activities.

1. Write the differences between acids and bases
2. Explain the activity the test of blue and red litmus papers to acids and bases

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

1. Collect some natural indicators and exhibit them into the classroom
2. Visit various agricultural fields and collect samples of soil and test them either acidic or basic by using indicators.

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Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN:: 05

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	PHYSICAL AND CHEMICAL CHANGES	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Introduction	1			Examples of different changes around us
2	Activities about physical changes	3			Paper cuttings, chalk powder, ice activities
3	Activities about physical changes	3			Water vapour, husk - Saw-blade Blade heating activity
4	Activities about chemical changes	3			Burning of magnesium ribbon, copper sulphate activity
5	Activities about chemical changes	2			Vinegar + baking soda activity
6	Physical changes	1			Changes in state, colour, shape = no new substances
7	Chemical changes	1			New substance is formed
8	Ozone layer	1			Oxygen ⇌ ozone u v race
9	Rusting of iron	1			Iron oxide, galvanization, steel
10	Crystallization	2			Salt preparation, copper sulphate activity
TOTAL		18			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Changes, physical changes, chemical changes, rusting of iron, galvanization, steel, crystallization, ozone layer, oxygen, uv rays, lime water

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

- 1.** Define physical changes and chemical changes?
- 2.** Differentiate between physical changes and chemical changes?
- 3.** Give own examples for physical changes and chemical changes
- 4.** Demonstrate some of the physical changes and chemical changes
- 5.** Explain rusting of iron, galvanization, crystallization

1.

TEACHING LEARNINGPROCESS



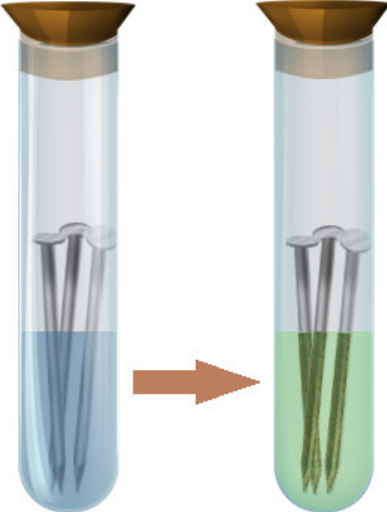
Induction / Introduction(Generating interest, informing students about the outcomes and expectations for the lesson)

By Doing water vapour experiment and burning of paper experiment, I will ask some questions to students for creating interest in this chapter

- What is meant by change?
- Which change did you observe here?
- Which one is permanent change?
- In which change new substances is formed?

Experience and Reflection(Task / question that helps students explore the concept and connect with their life)

1. Give one example for reversible change
2. Why does the iron become rust? Why did not get steel?
3. What is meant by galvanization?

Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>Demonstrate different activities for explaining physical changes and chemical changes which are following</p> <ul style="list-style-type: none"> • Paper cutting activity • Chalk peice powder activity • Ice – water – water vapour • Husk – saw blade – heating • Burning of magnesium • Copper sulphate and iron nail activity • Vinegar and baking soda activity <p>Explain the differences between physical changes and chemical changes</p>	<p>⇒ Divide the students into four to five groups and will give the work given below</p> <ol style="list-style-type: none"> 1. Make a list of physical changes around us 2. Make a list of chemical changes observed by you in our daily life 3. Make a table that shows the differences between physical changes and chemical changes 	<ul style="list-style-type: none"> • Not important points daily and learn • Write notes Daily and learn the important following concepts <ol style="list-style-type: none"> 1. Physical changes 2. Chemical changes 3. Rusting of iron 4. Crystallization 5. Galvanization 6. Differences between physical changes and chemical changes
 <p style="text-align: center;">CUTTING ACTIVITY</p> <p style="text-align: right;">PAPER</p>	 <p style="text-align: center;">BURNING OF MAGNESIUM</p>	 <p style="text-align: center;">CUPPER SULPHATE AND IRON NAIL ACTIVITY</p>

TLM (digital & Print)

- Textbook
- Blackboard – chalk pieces
- Different videos from YouTube channels
- Paper, chalk piece, ice
- Magnesium ribbon, vinegar, baking soda, copper sulphate, iron nail

Check for understanding questions.

Factual

Define the following terms and give examples

- Physical changes
- Chemical changes
- Galvanization
- Crystallization

Open ended / Critical thinking.

1. How does the salt prepare from sea water?
2. Why does the iron become rust but not steel?

Student practice questions & Activities.

1. Write the differences between chemical changes and physical changes?
2. Write a small note on rusting of iron and its preventive methods

Assessment (Think of what children SAY, DO and MAKE while learning that can form the evidence of learning to be used for assessment)

- 1.** List out 10 physical changes observed by you in your surroundings?
- 2.** List out 10 chemical changes observed by you in your daily life
- 3.** Draw a neat labelled diagram that shown crystallization

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Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN:: 06

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	RESPIRATION IN ORGANISMS	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Introduction	1			Cells, energy, cellular respiration
2	Types of respiration	2			Aerobic respiration and anaerobic respiration
3	Breathing	2			Inhalation, exhalation
4	Human respiratory system	3			Lungs, pathway of air
5	Roll of diaphragm	2			Dome shape flatten, Model with bottle, balloons
6	Sneezing	1			Dust spores, forceful expel out of air
7	Inhaled air - exhaled air	1			Percentage of nitrogen, oxygen, carbon dioxide in the inhaled and Exhale air
8	Tracheal respiration	1			Cockroaches, spiracles, trachea
9	Cutaneous, branchial respiration	2			Earthworm – skin, Fish – gills
10	Respiration in plants	1			Stomata, lenticels
TOTAL		16			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Aerobic respiration anaerobic respiration, Breathing rate, cellular respiration, diaphragm, exhalation, gills, lungs, inhalation, spiracles, trachea, ribs, skin , bronchial respiration

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

- Define breathing, inhalation, exhalation, sneezing, aerobic respiration and anaerobic respiration
- Differentiate between aerobic respiration and anaerobic respiration
- Prepare a model with glass bottle, balloons and straws
- Draw a neat label diagram of human respiratory system
- Appreciate the role of diaphragm in breathing

TEACHING LEARNINGPROCESS

Induction / Introduction(Generating interest, informing students about the outcomes and expectations for the lesson)

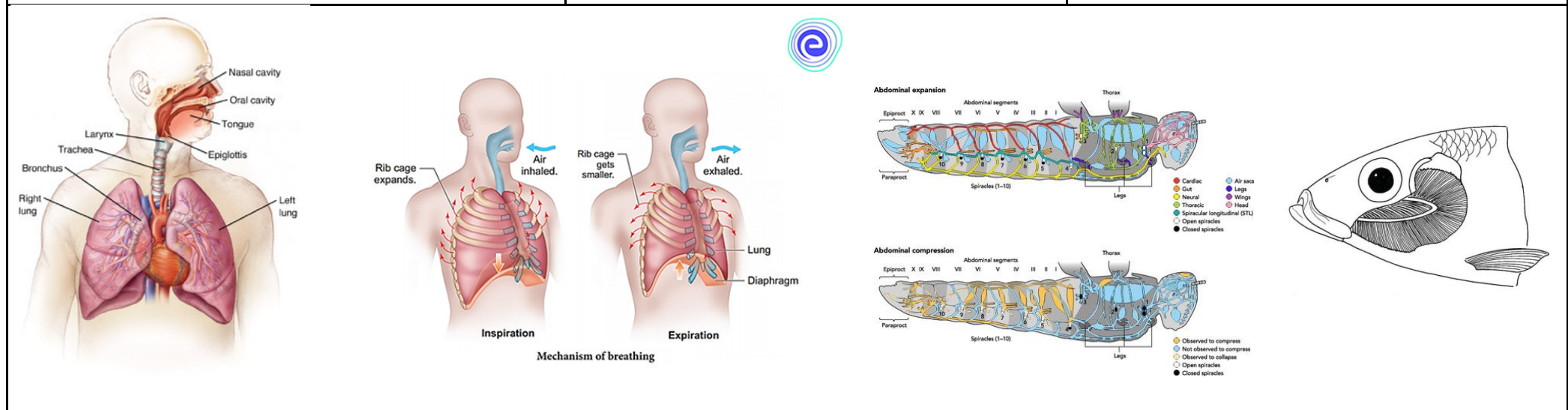
By asking some questions I will create interest on this lesson in students

- Why do we breathe even in sleeping?
- Where and how do we get energy for our daily activities?

Experience and Reflection(Task / question that helps students explore the concept and connect with their life)

- How much time can you hold your breath?
- Why running makes a person breathe faster?
- Why do we get muscle cramps after heavy exercise?

Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>⇒ I will explain the following concepts</p> <ul style="list-style-type: none"> • Respiration • Breathing in inhalation and exhalation • Human respiratory system • Roll off diaphragm • Types of respiration that means aerobic and anaerobic respiration • Sneezing • Respiration in different animals like cockroach earthworm fish by using different videos from YouTube channels <p>⇒ I will explain how to draw human respiratory system neatly</p>	<ul style="list-style-type: none"> • Divide the students in four to five groups and allot works given below <ol style="list-style-type: none"> 1. Note down the rate of breathing of your classmates while in running in rest, in walking etc. 2. Draw a neat label diagram of human respiratory system in your chart 3. Prepare a respiratory system model with bottles, balance and Straws 	<ul style="list-style-type: none"> • Note down the important points daily written on the board and learn daily • Write the notes daily and learn the important concepts which are following <ol style="list-style-type: none"> 1. Breathing 2. Differences between inhaled air and exhaled air 3. Parts of human respiratory system 4. Roll of diaphragm 5. Types of respiration



TLM (digital & Print)

- Textbook
- Blackboard - chalk piece
- Different videos about the concept of respiration from YouTube channels
- Charts that show human respiratory system, Bronchial respiratory system, Cutaneous respiratory system, mechanism of respiration

Check for understanding questions.

Factual

- Define inhalation, exhalation, breathing, sneezing
- Write differences between aerobic respiration and anaerobic respiration
- Right differences between inhaled air and exhaled air

Open ended / Critical thinking.

1. Why does an athlete breathe faster and deeper than usual after finishing the race?
2. Why do we often sneeze when we inhale a lot of dust loaded air?

Student practice questions & Activities.

1. List the similarities and differences between aerobic and anaerobic respiration
2. What are the differences between inhaled air and exhaled air

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

- 1.** Draw a neat label diagram of human respiratory system?
- 2.** Write a flow chart that show aerobic and anaerobic respiration
- 3.** Make a table with the headings of serial number, name of the respiratory organ, name of the respiration and examples

Signature of the Teacher

Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN:: 07

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	TRANSPORTATION IN ANIMALS & PLANTS	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Introduction	1			Circulation, heart, blood, blood vessels
2	Blood	2			Plasma, red blood cells, white blood cells, platelets
3	Blood vessels	2			Arteries, Vains, capillaries
4	Pulse	2			Pulse rate, 72 – 80 beats per minute
5	Heart	2			Atria, Ventricles, Aorta, Venacova
6	Heart rate	2			Contract, relax, stethoscope
7	Excretory system	2			Kidneys, ureters, bladder, urethra
8	Dialysis	2			Kidney failure, artificial kidney
9	Transportation in plants	2			Vascular tissue, Xylem, Phloem
10	Transpiration	1			Water evaporation through stomata
TOTAL		18			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Hot, heartbeat, blood, phloem, xylem, plasma, platelets, red blood cells, white blood cells, pulse, root hair, kidney, ureter, bladder, dialysis, excretion, stethoscope, vein, artery, capillaries

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

Student will be able to

- Define arteries, veins, heartbeat, excretion, dialysis, transpiration
- Differentiate between arteries and veins, red blood cells and white blood cells
- Demonstrate transportation in plants activity with Balsam plant
- Explain functions of blood, structure of heart, human accelerated system
- Draw neat labelled diagram of human heart, human excavator system

TEACHING LEARNINGPROCESS

Induction / Introduction(Generating interest, informing students about the outcomes and expectations for the lesson)

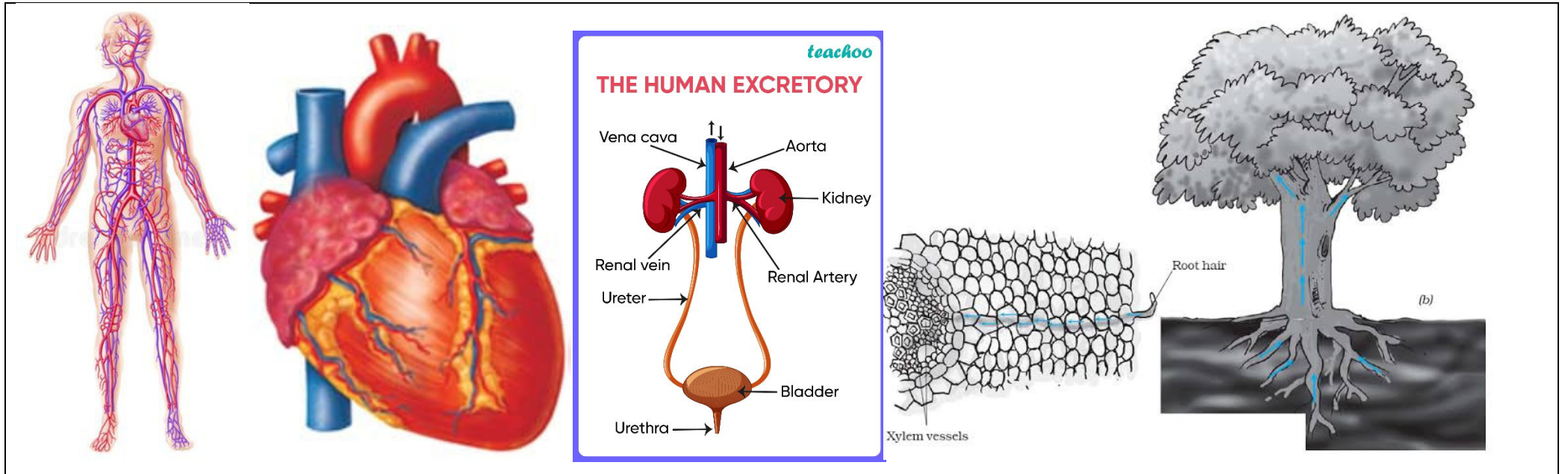
By asking some questions to students I will create interest on this lesson

- Why our blood appears in red colour?
- How many times did you hear heartbeat in a minute?
- What is the relationship between heartbeat and pulse rate?

Experience and Reflection(Task / question that helps students explore the concept and connect with their life)

- Why is transport of material necessary in a plant or in an animal?
- Why is necessary to excrete waste materials daily?
- Which organs are functioning without rest from born to death?

Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>I will demonstrate the following activities</p> <ul style="list-style-type: none"> • Transportation in plants with Balsam plant • Preparation of stethoscope by using funnel and rubber tube • Measuring the heart rate and pulse rate in the classroom <p>⇒ Explain the main concepts by using videos collected by me from YouTube channels</p> <p>⇒ I will teach how to draw the heart diagram excretory system easily on the board</p>	<p>Create four to five groups and I will give group activities following</p> <ul style="list-style-type: none"> • Note the pulse rate and heartbeat rate in your group members and find the relation between them • Prepare a model of stethoscope by using a funnel and rubber tube • Draw a neat label diagram of heart and human excretory system in the chart 	<p>Students note the important points daily and let them</p> <ul style="list-style-type: none"> • They right need notes daily and learn important concepts which are following <ol style="list-style-type: none"> 1. Functions of blood 2. Differences between arteries and veins 3. Heartbeat 4. Excretory system in human beings 5. Transportation in plants • Students can draw the following pictures <ol style="list-style-type: none"> 1. Flow chart of circulation 2. Human heart 3. Human excretory system



TLM (digital & Print)

- Textbook
- Blackboard – chalk pieces
- Human circulatory system chart
- Structure of human heart chart
- Human excretory system chart
- Transportation in plants chart
- Funnel, rubber tube
- Glass, red ink, balsam plant
- Videos from YouTube channel

Check for understanding questions.

Factual

1. What are the components of blood?
2. Describe the function of the heart?
3. What makes the blood looks red?

Open ended / Critical thinking.

1. What will happen if there are no platelets in the blood?
2. If transportation does not take place in the plants what will happen?

Student practice questions & Activities.

1. What are the stomata? State two functions of stomata?
2. Why blood is needed by all the parts of the body?
3. What are the functions of blood?

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

1. Draw a neat label diagram of human heart on a chart
2. Try a flowchart that indicates circulation in human being
3. Draw a neat label diagram of human excretory system on a chart

Signature of the Teacher

Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN:: 08

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	REPRODUCTION IN PLANTS	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Introduction	1			Reproduction, production of new individuals
2	Modes of reproduction	1			Sexual reproduction asexual reproduction
3	Asexual reproduction methods	2			Budding, fragmentation, spore formation
4	Vegetative propagation	2			Cutting, eyes, leaf buds
5	Structure of the flower	2			Calyx, Corolla, Stamen, Pistil
6	Types of flowers	1			Unisexual flowers, bisexual flowers
7	Pollination	1			Self-pollination, cross - pollination
8	Fertilization	1			Zygote, embryo
9	Fruits and seed formation	1			Ovary – fruit, Ovules - seeds
10	Seed dispersal	2			Maple, Drumstick, Madar (aak), Xanthium
TOTAL		14			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Students are able to explain following key concepts

Reproduction, sexual reproduction, Asexual Reproduction, budding, sporulation, sporangium, spore, hyphae, Stamen, pistil, pollination fertilization, gametes, zygote embryo seed dispersal, vegetative propagation, cutting.

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

- Define sexual reproduction, reproduction, asexual reproduction, pollination, fertilization
- Know the differences between self pollination and cross pollination, unisexual flowers and bisexual flowers
- Explain budding in yeast, fragmentation, spore formation, flower parts, seed dispersal
- Draw the neat labelled diagram of flower
- Appreciate seed dispersal fertilization in plants pollination through insects

TEACHING LEARNING PROCESS

Induction / Introduction(Generating interest, informing students about the outcomes and expectations for the lesson)

By conducting a field trip to a pomegranate plant which having flowers and fruits I will ask some questions to create interest in this lesson

1. Which plant gives us fruits?
2. What is the use of fruits in plants lifecycle?

Experience and Reflection(Task / question that helps students explore the concept and connect with their life)

- What is the function of flower in plants?
- Plants always grow from seeds but what about Rose, Nerium and China Rose plants
- Which plants can reproduce without seeds? How?

Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<ul style="list-style-type: none"> • I will conduct a Field Trip to observe unisexual flowers, bisexual flowers, pollination, formation of fruits from flowers • Dissect the flower to show flower parts • I will explain how to draw the diagram of flower parts easily by using board • Explain fertilization in plants, seed dispersal, vegetative propagation methods, asexual reproductive methods. 	<p>Create 4 to 5 groups and allot the group work given below</p> <ul style="list-style-type: none"> • Prepare herbarium of flower parts, unisexual flowers, bisexual flowers • Collect different seeds to understand seed dispersal • Draw a neat label diagram of flower parts 	<ul style="list-style-type: none"> • Note the important points daily in your class notebook and learn them • Write key points daily and learn important concepts which are following <ol style="list-style-type: none"> 1. Reproduction 2. Modes of reproduction 3. Budding and fragmentation 4. Spore formation 5. Structure of the flower 6. Unisexual flowers – bisexual flowers 7. Self pollination– cross pollination 8. Fertilization 9. Seed dispersal

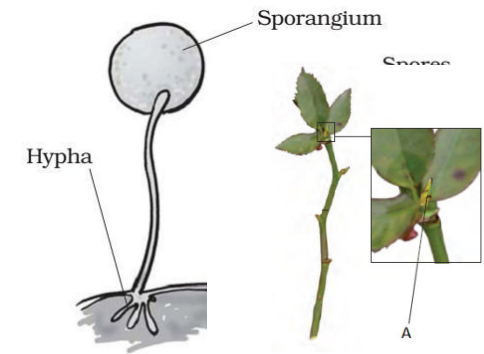
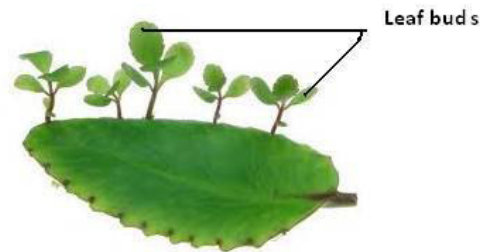
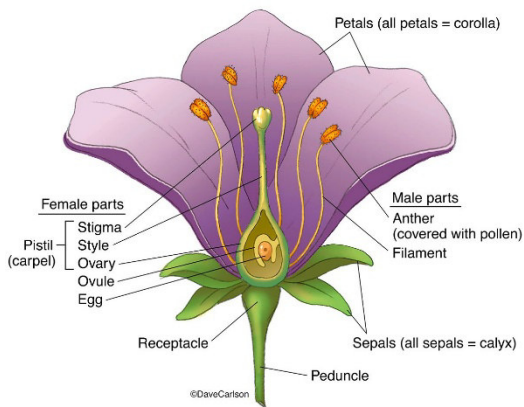


Fig. 12.7 Reproduction through spore formation in fungus

TLM (digital & Print)

- Textbook
- Blackboard – Chalk pieces
- Datura Flower
- Cucumber flower
- Bryophyllum leaf with leaf birds
- Drumstick seeds, Maple seeds
- Different videos from YouTube channels

Check for understanding questions.

Factual

- Define reproduction, pollination, fertilization, seed dispersal
- Differentiate between sexual reproduction and asexual reproduction
- Give examples for budding fragmentation and spore formation

Open ended / Critical thinking.

- How the male gametes in the pollen grains reach the female gametes present in the ovules?
- Why flowers are generally so colorful and fragmented fragmented?

Student practice questions & Activities.

1. Describe the different modes of asexual reproduction
2. Explain what you understand by sexual repluction
3. State the main differences between sexual reproduction and a sexual reproduction
4. Describe the various ways to follow the plants for seed dispersal

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

- Draw a neat label diagram of flower parts on a chart
- Collect and prepare herbarium of Dutra flower cucumber flowers (Male and female)
- Collect different types of seeds that having wings and hairy structures

Signature of the Teacher

Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN:: 09

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	MOTION AND TIME	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Introduction	1			Translatory, rotatory, oscillatory motion
2	Slow motion and fast motion	1			Covered short distance- long distance in given time
3	Speed	1			Total distance covered by total time taken metre / second
4	Uniform motion	1			Constant speed – blades of clock
5	Non uniform motion	1			Speed changing – vehicles
6	Measurement of time	2			Clock, stopwatch - digital clocks
7	Simple pendulum	2			Bob, oscillation
8	Speedometer	1			Measuring speed of a vehicle
9	Odometer	1			Measuring the distance moved by vehicle
10	Distance – time graph	1			X axis – time, y axis - distance
TOTAL		12			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Translatory motion, rotary motion, oscillatory motion, slow motion, fast motion, speed, uniform motion, non-uniform motion, clocks, pendulum, speedometer, odometer

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

Students will be able to explain following questions

- Define rotatory motion, translator motion, oscillatory motion, speed and motion
- Differentiate between slow motion and fast motion, uniform motion and non-uniform motion
- Explain types of motion and speed
- Draw the distance - time graph
- Appreciate the speedometer and odometer

TEACHING LEARNINGPROCESS

Induction / Introduction(Generating interest, informing students about the outcomes and expectations for the lesson)

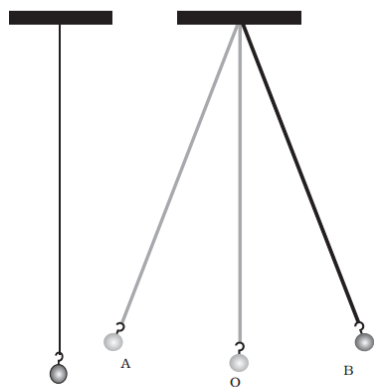
By asking questions to students, I will create interest in this chapter

- If you do not have a clock, how would you decide what time of the day it is?
- Is there any device for measuring the speed of a vehicle?
- Which device is used to measure the distance moved by a vehicle?

Experience and Reflection(Task / question that helps students explore the concept and connect with their life)

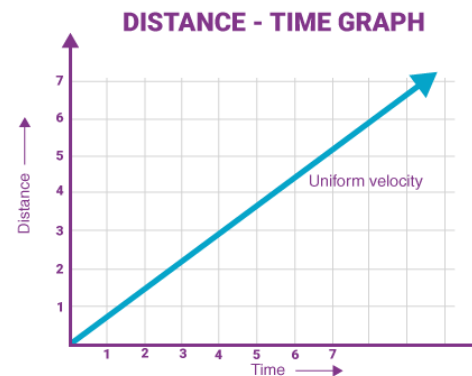
- What makes the objects move and moving objects to come slow down or to rest?
- What is the reason for movement of coins when hit them with a striker?
- What did you apply to change the direction of a moving ball?

Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>⇒ I will explain following concepts</p> <ol style="list-style-type: none"> 1. Slow motion - fast motion by using bicycle 2. Uniform motion – non uniform motion by using a clock 3. Speed of a vehicle measuring with speedometer by using a bike 4. Measuring distance by using a odometer With the help of bike 5. Measuring the time by using clock 6. Drawing a distance – time graph 	<p>Create 4 – 5 groups and allot given work</p> <ol style="list-style-type: none"> 1. List out the examples for three types of motion 2. Draw a distance - time graph for uniform and non - uniform motions 	<ul style="list-style-type: none"> • Note the important points daily in your class notebook and learn them • Wright neat notes following concepts <ol style="list-style-type: none"> 1. Slow motion and fast motion 2. Speed 3. Uniform motion – non-uniform motion 4. Speedometer 5. Odometer 6. Units of speed 7. Distance – time graph



(a) A simple pendulum

(b) Different positions of the bob of an oscillating simple pendulum



TLM (digital & Print)

- Textbook
- Blackboard – chalk pieces
- Bicycle and bike
- Speedometer
- Odometer
- Videos from YouTube channels

Check for understanding questions.

Factual

- Define the terms speed, speedometer and odometer
- Differentiate between uniform motion and non uniform motion
- Differentiate between slow motion – speed motion

Open ended / Critical thinking.

1. If there is no clocks what will happen?
2. What are the uses of speedometer and odometer?

Student practice questions & Activities.

- Give your own examples for three types of motion
- Define and give examples of uniform motion and non uniform motion

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

1. Draw distance and time graph for uniform motion and non uniform motion
2. Make a list for examples of three types of motion
3. Observe a sieving machine used by tailors mention the types of motion of its parts which are the wheel, the handle, the cloth

Signature of the Teacher

Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN:: 10

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	ELECTRIC CURRENT & ITS EFFECTS	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Introduction				Electric home appliances like tv, fan, bulb
2	Symbols of electric components				Cell, bulb, switch, battery, wire
3	Battery				Series connection and parallel connection
4	Simple circuit				Balboa, sell, wire, switch on or off
5	Switch				Open circuit and close circuit
6	Fuse				Tin and lead the wire – high resistance, low melting point
7	MCB				Miniature circuit breaker
8	Heating effect of electric current				Electric stove, iron box, Geyser, Kettle
9	Lightning effect of electric current				Bulb, tube light, CFL, L E D
10	Magnetic effect of electric current				Electric Bell, Motor, Generator or Dynamo
TOTAL					

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Cell, bulb, battery, switch, electric circuit, heating effect of electric current, magnetic effect of electric current, electric stove, electric heater, fluorescent bulb, CFL, MCB, fuse

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

Students will be able to

- Define battery, MCB, Fuse
- Apply the concept of circuit, fuse, MCB etc in daily life
- Explain the process of heating and magnetic effect of electric current
- Identify the importance of power saving and safe usage
- Make an electro magnet with an iron nail

TEACHING LEARNINGPROCESS

Induction / Introduction(Generating interest, informing students about the outcomes and expectations for the lesson)





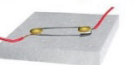

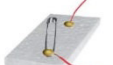





By asking some questions to students I will create interest on this lesson

1. What are the electric devices present in your home?
2. If there is no current what are the consequences?
3. Why does a bulb glow when we switch it on?

Experience and Reflection(Task / question that helps students explore the concept and connect with their life)

- How does a switch work?
- Why does a fuse arranged near metre?
- How does your cell produced electricity?

Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>⇒ Demonstrate the experiments or activities following</p> <ol style="list-style-type: none"> 1. Simple circuit 2. Heating effect of electric current 3. Magnetic effect of electric current <p>⇒ Explain How does a fuse works and MCB work by showing MCB</p> <p>⇒ By showing an electric bell explain how does it work</p>	<p>Divide the students into 4 – 5 groups and allot the group work given below</p> <ul style="list-style-type: none"> ⇒ Make a simple circuit by using cell, bulb wire and switch ⇒ Make a parallel and series connection with cells and bulbs 	<p>⇒ Write down important points daily and learn</p> <p>⇒ Wriht time to time and learn important concepts</p> <ol style="list-style-type: none"> 1. Simple circuit 2. Fuse 3. MCB 4. Heating effect of electric current 5. Magnetic effect of electric current

S.No.	Electric component	Symbol
1.	Electric cell 	
2.	Electric bulb 	
3.	Switch in 'ON' position 	
4.	Switch in 'OFF' position 	
5.	Battery 	
6.	Wire 	

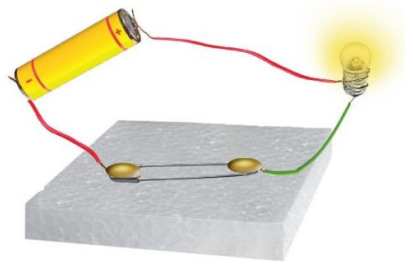


Fig. 10.7 An electric circuit

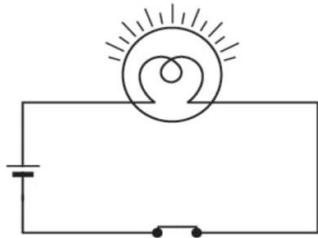


Fig. 10.8 Circuit diagram of electric circuit shown in Fig. 10.7

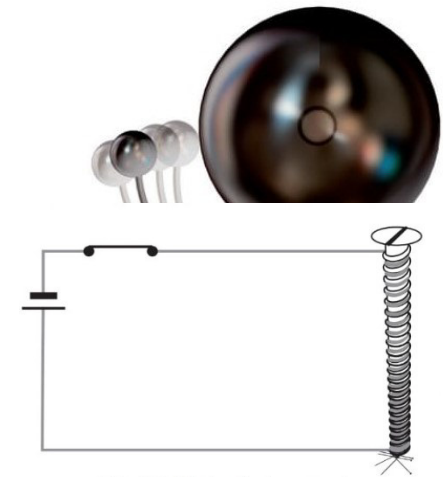


Fig. 10.19 An electromagnet

TLM (digital & Print)

- Textbook
- Blackboard and Chalk pieces
- Cells
- Bulbs
- Wire
- Switch
- MCB
- Fuse
- Different videos collected from YouTube

Check for understanding questions.

Factual

1. List out the electric appliances in your home
2. Give examples for electric appliances which works on the property of heating effect of electricity?

Open ended / Critical thinking.

1. If there is no switch what will happen?
2. Why do we use LED bulbs instead of other bulbs?

Student practice questions & Activities.

1. Explain the magnetic effect of electric current by an activity
2. How does an electric bell works?

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

1. Draw the symbols of electric components given below
Cell, battery, bulb, switch on, switch off, wire
2. Draw a circuit diagram by using the symbols of bulb, cell, wire and switch
3. Collect the pictures that work on heating and magnetic effect of electric current

Signature of the Teacher

Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN: 11

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	LIGHT	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Introduction	1			Light travels along a straight line
2	Reflection of light	2			Torch, plain mirror
3	Characteristics of image formed by plane mirror	3			Erect, same size, same distance, lateral inversion
4	Spherical mirrors	2			Convex, concave
5	Real image – virtual image	1			Obtain image on screen, could not be obtained
6	Image formed by concave mirror	1			Virtual erect
7	Uses of concave mirror	1			Dentists, headlight of vehicles
8	Uses of convex mirror	1			Rear view mirror / side view mirror
9	Lenses	1			Convex lens concave lens
10	Dispersion of light	2			Prism rainbow
TOTAL		15			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Plane mirror, concave mirror, convex mirror, image, real image, virtual image, concave mirror, convex mirror, rainbow, prism, spherical mirror, side mirror, rear view mirror, erect image.

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

Students will be able to explain the following

- Define concave mirror, convex mirror, real image, virtual image, lens
- Differentiate between concave mirror – convex mirror, real image - virtual image
- Explain the characteristics of image formed by plain mirror
- Demonstrate different activities related to light and this chapter
- Appreciate the wonders of light like reflection, dispersion of light

TEACHING LEARNINGPROCESS

Induction / Introduction(Generating interest, informing students about the outcomes and expectations for the lesson)

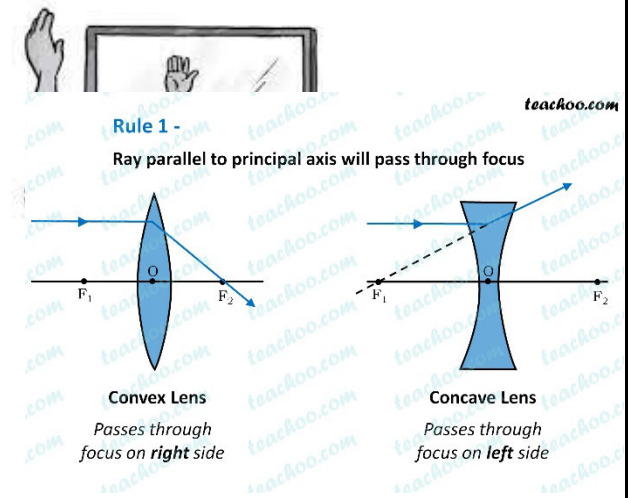
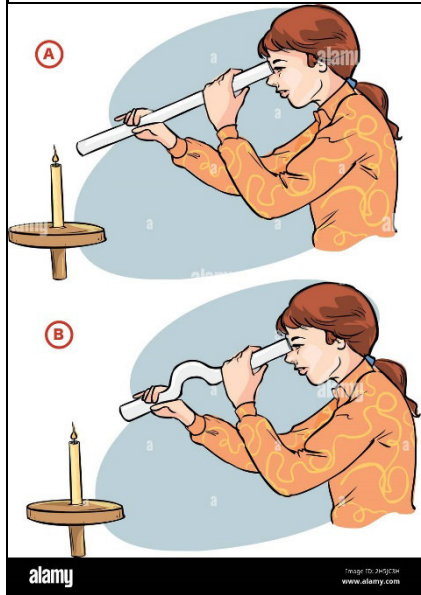
By showing rainbow image I will asking some questions to students to create interest on this lesson

- 1.** Have you ever seen a rainbow in the sky?
- 2.** How many colours are you observed in the rainbow? How they formed?

Experience and Reflection(Task / question that helps students explore the concept and connect with their life)

- What makes things visible to us?
- If you raise left hand in front of a plain mirror which hand image, will you see in the mirror?
- What is the size of the image formed outside of a spoon?

Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>⇒ I will demonstrate different activities present in the textbook to teach concepts of light which are falling</p> <ul style="list-style-type: none"> • Light travels along a straight line • Reflection of light • Characteristics of image formed by plane mirror • Virtual image found by Concave Mirror • Light dispersion activity by prism <p>⇒ Explain important concepts of light by using different YouTube videos</p>	<ul style="list-style-type: none"> • Divide the students into four to five groups and give group works given below <ol style="list-style-type: none"> 1. Collect information about dispersion of light 2. Write the differences between convex mirror and concave mirror 3. Write the usages of spherical mirrors on a chart 	<ul style="list-style-type: none"> • Students should not important points daily and learn them • Write need notes time to time and learn important concepts which are following <ol style="list-style-type: none"> 1. Reflection of light 2. Characteristics of image formed in plane mirror 3. Convex – Concave mirror 4. Uses of Spherical mirrors 5. Dispersion of light



TLM (digital & Print)

- Textbook
- Blackboard – chalk pieces
- Plane mirror
- Concave mirror and convex mirror
- Spoons
- Prism
- Convex lens, concave lens
- Different videos collected from YouTube channels

Check for understanding questions.

Factual

1. Define the terms which are reflection of light, real image, virtual image, convex mirror, concave mirror
2. How many colours are present in a rainbow? What are they?

Open ended / Critical thinking.

1. If light does not reflect what will happen?
2. Why do we use convex mirror as a rearview mirror?
3. Why are concave and convex mirrors called spherical mirrors?

Student practice questions & Activities.

1. State the characteristics of image formed by plane mirror
2. What is virtual image? Give one situation
3. State four differences between convex mirror and concave mirror and images?

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

1. Collect the information about mirrors?
2. Draw image of rainbow and chart?
3. Collect the plane mirror convex mirror concave mirror convex lens and concave lens

Signature of the Teacher

Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN:: 12

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	FORESTS : OUR LIFE LINE	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Introduction	1			Serves as green lungs - water purifying system
2	Forest – habitat	1			Plants, trees, birds, insects, animals
3	Uses of forest	4			Plywood, fuel wood, paper, Bamboo, Honey
4	Food Chain	2			Producers, consumers, decomposers
5	Interrelationship	1			Soil, plants, animals, microorganisms
6	Oxygen and carbon dioxide cycle	1			Plants ⇔ animals
7	Deforestation - affects	2			Water cycle disturbs, loss of habitat
8					
9					
10					
TOTAL		12			

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Canopy, crown, deforestation, humus, seed dispersal, soil erosion, decomposers, regeneration, understory, forest, floor, food chain, plywood, fire wood

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

Students will be able to

- Define canopy, deforestation, afforestation
- Explain inter relationship between soil, plants, animals and decomposers
- Appreciate the uses of forest (Forest has a habitat, acts as lungs, gives forest products)
- Explain the effects of deforestation

TEACHING LEARNINGPROCESS

Induction / Introduction(Generating interest, informing students about the outcomes and expectations for the lesson)

By asking some questions to student I will create interest on this lesson

- 1.** Who releases the oxygen gas into atmosphere (Which is essential for our survival)
- 2.** If there are no plants what are the consequences?
- 3.** What are the uses of forests?

Experience and Reflection(Task / question that helps students explore the concept and connect with their life)

- Would you see similar kinds of trees in every forest?
- What will happen if we cut trees for a factory?
- In which layer of the soil would you find humous? What is its importance to the soil?

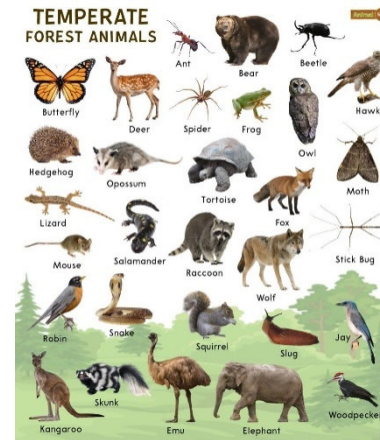
Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>⇒ I will explain the importance of forests</p> <ol style="list-style-type: none"> 1. Forest act as lungs of the world 2. Forest act as habitat 3. Forest gives us so many products like wood, firewood, medicinal plants etc 4. Forest invite trains <p>⇒ I will explain the importance of forest by using different videos collected from YouTube channels and Discovery channels</p>	<p>Divide the students into four to five groups and I give group work given below</p> <ol style="list-style-type: none"> 1. List out the trees grown in the forest 2. List out the animals grown in the forest 3. List out the uses of forest 4. Draw a beautiful diagram of forest 	<p>⇒ Note important points daily and learn them</p> <p>⇒ Write me notes time to time and learn the important concepts of this lesson which are following</p> <ol style="list-style-type: none"> 1. Deforestation effects 2. Uses of forest 3. Forest serves as green lungs 4. Forests act as a habitat



FOREST



FOREST PRODUCTS



FOREST ANIMALS



DEFORESTRATION

TLM (digital & Print)

- Textbook
- Blackboard and chalk Pieces
- Pictures of forest
- Videos from YouTube channels
- Charts that show uses of forest

Check for understanding questions.

Factual

1. Define canopy, food chain decomposers
2. List out the products of forest
3. Give an example for food chain

Open ended / Critical thinking.

- Explain how animals dwelling in the forest help it grow and regenerate
- Explain how forests prevent floods, soil erosion

Student practice questions & Activities.

1. What are the composers? Name any two of them. What do they do in the forest?
2. Explain the role of forest in maintaining the balance between oxygen and carbon dioxide in the atmosphere

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

1. List out the 10 products we get from forest
2. List out 10 trees growing in the forest
3. Collect 10 animals growing or dwelling in the forest

Signature of the Teacher

Signature of the Visiting Officer

Signature of the Headmaster

LESSON PLAN::13

CLASS	VII	NAME OF THE TEACHER	
SUBJECT	GENERAL SCIENCE	NAME OF THE SCHOOL	
NAME OF THE LESSON	WASTE WATER STORY	MONTH & YEAR	

S NO	NAME OF THE TOPIC	No. OF PERIODS REQUIRED	TIME LINE FOR TEACHING		ANY SPECIFIC INFORMATION
			FROM	TO	
1	Introduction				Waste water, fresh – water
2	The uses of water				Drinking, cultivation, industrial
3	Scarcity of fresh water				Population, industrial development
4	Water for life				UNO, Water world today, water for life
5	Sewage				Sewage composition, sewage treatment
6	Sewage relates in home or school				Sewerage
7	Activity for sewage cleaning				Aeration, filtration, chlorination
8	Waste water treatment plant				Physical, chemical, biological processes
9	Sanitation and diseases				Poor sanitation, more diseases
10	Swachh Bharat				At homes, schools, hospitals, bus stations, railway stations
TOTAL					

PRIOR CONCEPTS / SKILLS:(Essential concepts and skills to be checked / bridged before teaching the current concept)

Sewage water, sewerage, sludge, contaminant, aeration, filtration, chlorination, sanitation, sewer, wastewater, aerobic bacteria, wastewater treatment plant

LEARNING OUTCOMES:(Select from SCERT Academic Calendar and Textbook)

Students will be able to

- Define sewage, sewerage, aeration, filtration, chlorination
- Differentiate between freshwater and wastewater
- Explain wastewater treatment process
- State the causes and preventive measures of wastewater
- Appreciate the fresh water sources

TEACHING LEARNINGPROCESS

Induction / Introduction(Generating interest, informing students about the outcomes and expectations for the lesson)

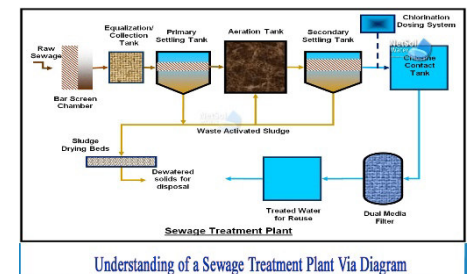
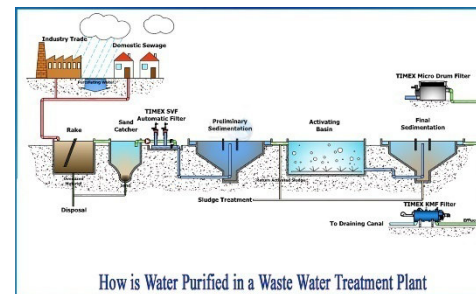
By asking some questions to students I will create interest to this lesson

1. The largest part with water is Earth is it correct or not? Why?
2. What are the uses of water?
3. How much water do you waste daily?

Experience and Reflection(Task / question that helps students explore the concept and connect with their life)

- If there is no water in the ground of soil what will happen?
- There is a huge amount of water on air then why is water called a precious resource?
- Do you know how modern water purifiers works

Explicit Teaching / Teacher Modeling (I Do)	Group Work (We Do)	Independent Work (You Do)
<p>⇒ By using some videos collector from YouTube I will explain following</p> <ul style="list-style-type: none"> • Water resources • Wastewater treatment process • Causes of sewage <p>⇒ Uses of water and wastage of water topics will teach by group discussions*</p>	<ul style="list-style-type: none"> • Divide the student C into four to five groups and I will give group works given below <ol style="list-style-type: none"> 1. Uses of water 2. Water resources 3. Causes of sewage 4. Process of wastewater treatment 	<p>⇒ Students should not important points daily and learn</p> <p>⇒ Write net notes time to time and learn important concepts which are falling</p> <ol style="list-style-type: none"> 1. Uses of water 2. Water resources 3. Sewage 4. Waste water treatment process 5. Swachh Bharat



TLM (digital & Print)

- Textbook
- Blackboard and Chalk pieces
- Videos from YouTube channels
- Models of sewage
- Charts that showing water resources and wastewater treatment plants

Check for understanding questions.

Factual

1. Define sewage, sewerage, chlorination
2. List out the uses of water
3. List out water resources

Open ended / Critical thinking.

1. What would happen if there is no water on the earth?
2. What conservative methods do you follow to conserve water?

Student practice questions & Activities.

1. What is sewage? Explain why it is harmful to the discharge untreated sewage into rivers and seas?
2. Why should oils and fats be not released in to the drains?
3. What is sludge? Explain how it is treated?

Assessment (Think of what children SAY,DO and MAKE while learning that can form the evidence of learning to be used for assessment)

1. Write your role as an active citizen in relation to sanitation
2. Explain the relationship between sanitation and diseases
3. Draw a flow chart that shows the process involved in wastewater treatment plant

Signature of the Teacher

Signature of the Visiting Officer

Signature of the Headmaster