MODEL UNIT

A. Identification Data:

School : X Class : No. of Students : Duration : 40 Minutes Date :	Subject : Science Unit : I Lesson : Characteristic Features of Living and Non-Living Beings and Things Text Book : Z Name of the Teacher : K

B. General Objectives:

1. To develop a scientific attitude in the learners;
2. To develop the knowledge about different beings things that constitute the earth;
3. To develop the capacity of observation of the learners;
4. To develop the sense of inquiry of the learners.

C. Teaching Aids:

1. A chart showing different animals and plants;
2. Usual teaching aids like blackboard, chalk, duster, and pointer etc.

D. Introduction:

Step	Assumed Previous Knowledge	Teachers Activities	Pupil's Activities
I N T R O D U C T I O N	The learners have the basic knowledge regarding what living and non-living beings and things are.	The teacher will enter into the classroom with a cheerful smile and greet all the learners. He/She will arrange the classroom in a proper manner and will proceed to ask the following questions: * Name some of the beings and things that you have seen today while coming to school. * Do you know which of them are living and nonliving as well? The teacher will praise the learners for their correct answers and will explain that all the beings and things of this world as divided into two groups, i.e. Living and Non-living. Then he/she will announce the day's lesson and write down the topic "Characteristic Features of Living and Non-living" on the blackboard.	The learners will wish the teacher. The learners are expected to answer as: ⇨ Man, Cow, Car, Trees, House, Cycles, Tables, Chairs, Pen etc. ⇨ Man, Cow and trees are Living things. Car, House, Cycle, Tables, Chairs, Pen etc. are Non-living things. The learners will open their textbooks and note books and will write down the important contents.

E. Presentation:

Step	Teaching Points	Specific Objectives	Teachers Activities	Pupils' Activities	Expected Learning Outcome
P R E S E N T A T I O N	* Growth – the primary feature of all Living beings and things	⇨ to enable the pupils to know that all living beings and things grow in size and weight. ⇨ to enable the pupils to realize that non-living things do not have real growth.	The teacher will use the lecture cum demonstration method to explain the Lesson. He/She will explain the phenomenon of growth in Living beings and things with the help of a chart showing different animals, plants and their young ones. He/She will then explain why some non-livings things appear to grow externally.	The pupils will take note of the explanations.	⇨ Understand the growth processes of both plants and animals. ⇨ Realize that nonliving things do not have actual growth.
	* Respiration	⇨ to enable the pupils to know about the process and function of respiration in living beings and things.	The teacher will explain the process of respiration in Living beings and ask – * Why do we respire? He/She will then explain that nonliving things do not respire.	The learners are expected to answer as: To produce energy.	⇨ Understand the functioning of respiration in living beings. ⇨ Realize that nonliving things do not respire.

Step	Teaching Points	Specific Objectives	Teachers Activities	Pupils' Activities	Expected Learning Outcome
PRESENTATION	* Response to stimulus	⇨ to enable the pupils to know what is stimulus and response ⇨ to enable the pupils to know the mechanisms of responses to different stimuli by both animals and plants.	The teacher by citing different examples with respect to both plants and animals will try to explain that all living beings and things respond to stimuli, whereas nonliving things do not make any such responses. He/She will then ask: * Responding to stimulus is _____ in animals than in plants. * What is a stimulus?	The pupils are expected to answer: ⇨ Quicker ⇨ Anything to which a living beings and things make a response.	⇨ Understand the stimulus and response mechanism in both plants and animals.
	* Reproduction	⇨ to enable the pupils to know the meaning of reproduction. ⇨ to enable the pupils to know how plants and animals reproduce.	The teacher will explain the meaning the of reproduction and the different ways by which different animals and plants reproduce and will then ask: * How do birds and fish reproduce? * How do mammals reproduce? * _____ reproduce through seeds, stems roots and bulbs.	The pupils are expected to answer: ⇨ They lay eggs. ⇨ They give birth to their young ones. ⇨ Plants.	⇨ Understand what is reproduction. ⇨ Gain knowledge of the various ways and means of reproductions of various plants and animals.

F. Closure:

Step	Teachers Activities	Pupils' Activities
CLOSURE	After giving an oral summary of the day's lesson on various points such as: (i) Growth (ii) Respiration (iii) Response to stimuli (iv) Reproduction etc., the teacher will give the following 'Home assignment' and will ask the learners to note down the problem. Q. What are the different characteristics of living beings and things that differentiate them? He/She will then rub the blackboard, thank the learners and leave the class.	The learner's will note down the of the home assignment in their note books and then thank the teacher.

FORMAT OF A LESSON PLAN

Name of the School :
Class :
No. of Pupil :
Duration :
Date :

Subject :
Lesson :
Unit :
Name of Text Book :
Name of the Teacher :

General Objectives : 1) Relation to the subject)
2)
3)

Teaching Aids : Usual Classroom Apparatus (Black Board, Chalk, Duster)

Chart, Model, Maps, Specimen, Picture etc. relating to topic

INTRODUCTION :.....

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Step	Assumed previous Knowledge	Teacher's Activities	Pupil's Activities
I N T R O D U C T I O N	Previous Knowledge	The teacher will enter the classroom with a pleasing mood and will supervise the sitting arrangement of the class The teacher will test the previous knowledge of the pupils by putting few questions and motivate them for the lesson	The pupil will try to answer as follows

Step	Assumed previous Knowledge	Teacher's Activities	Pupil' Activities
INTRODUCTION		Question : 1. 2. 3.	Expected Answer : 1. 2. 3.
	Announcement of the topic Name of the topic	After being satisfied the teacher will announce the topic by saying that today we are going to discuss about..... ..... (Write the name of the topic on the Black Board and ask the pupil to write it on their note books)	The pupil will write the name of the topic on their note

Presentation :

Step	Teaching Points	Specific Objectives	Teacher's Activities	Pupils' Activities	Expected Learning Outcome
PRESENTATION	Write very briefly the main sections/ points of the topic 1. 2. 3. 4. 5.	Relation to the topic 1. Knowledge 2. Understanding 3. Skill 4. Attitude 5. Interest 6. Application 7. Appreciation	The teacher starts teaching the lesson (Teaching method used to be mentioned) Questions..... ..... 1. 2. 3. (Use of teaching aids etc.)	The students will try to give the expected answer as follows : 1. 2. 3.	Knowledge? Understanding? Skill? Application? Etc.

Closure		
Step	Teacher's Activities	Pupils' Activities
C L O	In order to evaluate the acquired knowledge of the pupils in terms of specific objective of the topic, objective type, short questions are to be given in writing in the class and the teacher will correct it in the class as far as possible.	The students will write the questions and the answer in
S		Expected Answer
U	1.	1.
R	2.	2.
E	3.	3.
Home Work / Assignment :	Essay type or short answer type questions to be given	
Black Board Work :	Black Board Work / summary done in co-operation with the pupils during the lesson.	

LESSON PLAN - I

Name of the School	:	Subject	: Mathematics
Class	: III	Lesson	: Fractions
Number of pupils	:	Unit	:
Time	: 40 minutes	Name of the text book	: General Mathematics
Date	:	Name of the teacher	:

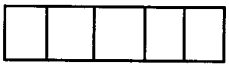
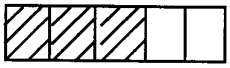
GENERAL OBJECTIVES :

- To develop in the pupils the interest to mathematics.
- To develop the logical thinking and systematic working in the students.
- To develop in the students, the habit of working with speed and accuracy.

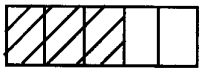
TEACHING AIDS :

- Book
- Chalk
- Duster
- Black-board
- Pointer
- Chart and diagram

INTRODUCTION

Step	Assumed Previous Knowledge	Teacher's Activity	Pupil's Activity
INTRODUCTION	Testing of previous knowledge	On entering into the classroom, the teacher will arrange the classroom properly and in order to motivate the students, the teacher will ask some questions - (i)  In this figure, how many parts are there ? (ii)  In this figure, how many shaded parts are there ? (iii) How can represents shaded parts as out of whole parts ? After that, the teacher will announce the topic by saying - "Today we are going to discuss about 'Fractions' Then, he will write the topic on the black-board as 'FRACTIONS'	The pupil will try to give answer as following ways - Expected answers : (i) Ans : 5 (ii)Ans : 3 (iii) Ans: They will try and saying 'No' The students will write the name of the topic on their note book

PRESENTATION

Step	Teaching Points	Specific Objective	Teacher's Activity	Pupil's Activity	Learning Outcome
PRESENTATION	Concept Numerator and Denominator	To give the knowledge of fraction to the pupils	To teach this topic the teacher will start with soure concrete examples. Some figures should be drawn on the black-board and the concept of fractions be clarified with the help of these figures : for example  Total parts = 5 Total shaded parts = 3 Then $^3/5$ is called fraction i.e. taking 3 parts out of 5 parts. Similarly, in the following figure :  $\frac{1}{2}(half)$, $\frac{1}{4}$ Suppose, $^a/b$ be fraction, then a is called numerator and b as denominator for ex : $\frac{3}{5}$ is a fraction What is the its numerats and denomi-nator ?	The pupils will write down the important points on their note book Ans : numerator is 3 and denomi-nator is 5	K N O W L E D G E

Step	Teaching Points	Specific Objective	Teacher's Activity	Pupil's Activity	Learning Outcome
PRESENTATION	Types of fractions and their examples	The students are able to know about various types of fractions pupils	We have different types of fractions like (a) Proper Fraction (b) Improper Fraction (c) Mixed Fraction Fractions having numerator less than the denominator are called proper fractions. e.g. $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{2}{5}$ and fraction having numerator is equal to or greater than denominator is called improper fraction. e.g. $\frac{5}{3}, \frac{8}{5}, \frac{11}{4}, \frac{17}{5}$ The combination of a whole number and a fraction is called mixed fraction. e.g. $1\frac{1}{4}, 2\frac{3}{7}, 4\frac{3}{5}$ These numbers can be written in the form of improper fraction. e.g. $1\frac{1}{4}$ can be written as $(1 + \frac{1}{4})$ or $(\frac{4}{4} + \frac{1}{4}) = \frac{5}{4}$	Pupils will listen attentively and write down on their note book.	UNDERSTANDING

Step	Teaching Points	Specific Objective	Teacher's Activity	Pupil's Activity	Learning Outcome
PRESENTATION	Addition, Substraction, Multiplication and Division of fractional Numbers Example Example	To enable them to solve the problems related to fraction.	When, we add two or more fractional numbers, we get a new fractional number. e.g. (i) $\frac{1}{2} + \frac{2}{3}$ What will be LCM of 2, 3 $= \frac{3+4}{6} = \frac{7}{6}$ (ii) $\frac{1}{2}+\frac{1}{3}+\frac{1}{4}=?$ Similarly, we can substract one fraction from another fraction, e.g. $\frac{1}{4} - \frac{1}{5}$ $= \frac{5-4}{20} = \frac{1}{20}$ Again, we can multiply two or more fraction e.g. (i) $\frac{1}{2}\times\frac{1}{5}=\frac{1\times1}{2\times5}$ $= \frac{1}{10}$ (ii) $\frac{1}{2}\times\frac{1}{3}\times\frac{1}{5}=?$ Also, (i) $\frac{2}{5} \div \frac{1}{4}$ $= \frac{2}{5} \times \frac{4}{1}$ $= \frac{8}{5}$ Simplify: $1\frac{1}{2} + \frac{1}{3}$	(i) 2 x 3 = 6 (LCM) (ii) $\frac{6+4+3}{12}=\frac{13}{12}$ LCM = 12 (ii) $\frac{1}{2}\times\frac{1}{3}\times\frac{1}{5}$ $\frac{1\times1\times1}{2\times3\times5}=\frac{1}{30}$ Ans : $1\frac{1}{2}+\frac{1}{3}=\frac{3}{2}+\frac{1}{3}$ $=\frac{9+2}{6}=\frac{11}{6}$ $= 1\frac{5}{6}$	UNDERSTANDING GIVEN

CLOSURE

Step	Teacher's Activities		Pupils' Activities
C	Clam work	In order to evaluate the acquired knowledge of the pupils in terms of specific objectives of the topic short questions are to be given as class work	
L		(i) How many types of fraction ? (ii) What are them ?	Ans : 3 Ans : Proper fraction, Improper fraction and Mixed fraction
O		(iii) Simplify : $\frac{1}{2}+\frac{1}{3}\div\frac{1}{6}$	Ans : $\frac{1}{2}+\frac{1}{3}\div\frac{1}{6}$ $=\frac{1}{2}+\frac{1}{3}\times\frac{6}{1}$ $=\frac{1}{2}+\frac{2}{1}$ $=\frac{1+4}{2}=\frac{5}{2}$
S		After verifying the classwork, the teacher will recapitulate the lesson and gives homework as :-	
U	Home work	(i) Select which type of the following fraction $\frac{1}{2},\frac{3}{2},\frac{7}{2},6,1\frac{1}{3},11\frac{1}{7},\frac{99}{7}$ (ii) Simplify of the following : (a) $\frac{1}{2}+\frac{1}{3}-\frac{1}{5}$ (b) $1\frac{1}{2}-3\frac{1}{5}+\frac{1}{2}$ (c) $\frac{1}{4}\div 6+\frac{3}{7}\times\frac{7}{2}$	The student will note down the questions for home work.
R		After giving home work, he cleans the blackboard and leaves the classroom, giving thanks to the students for their co-operation.	The student also thank the teacher.
E			