

**ACADEMIC PLAN**  
**SESSION 2016-2017**  
**CLASS : VIII**  
**SUBJECT : SCIENCE**

**SUMMATIVE ASSESSMENT-1**

S.NO.	NAME OF THE CHAPTER	NUMBER OF PERIODS	MARKS
1)	The cell- its structure and functions	07	08
2)	Micro-organisms :friends or foes	10	10
3)	Combustion	06	11
4)	Force and pressure	07	11
5)	Friction	07	09
6)	Sources of energy	04	08
7)	Conservation of plants and animals	05	09
8)	Electric current and its chemical effects	09	11
9)	Earthquakes	03	05
10)	Pollution of air	04	07

**SUMMATIVE ASSESSMENT-II**

S.NO.	NAME OF THE CHAPTER	NUMBER OF PERIODS	MARKS
1)	Metals and Non- metals	04	11
2)	Crop production and its management	07	10
3)	Refraction and Dispersion of light	22	11
4)	The human eye	12	07
5)	Sound	08	11
6)	Synthetic fibres and plastics	04	10
7)	Reproduction in animals	08	10
8)	Reaching the age of adolescence	07	07
9)	Stars and solar system	06	07
10)	Pollution of water	04	06

## **SCHEDULE OF FORMATIVE ASSESSMENT & UNIT TEST**

<b>FORMATIVE ASSESSMENT-I</b>	<b>FORMATIVE ASSESSMENT-II</b>	<b>FORMATIVE ASSESSMENT-III</b>	<b>FORMATIVE ASSESSMENT-IV</b>
UNIT TEST (20)	UNIT TEST (20) HOLIDAY HOME WORK (10) <ul style="list-style-type: none"> <li>• (INTERDISCIPLINARY PROJECT)</li> </ul> Activity (10)	UNIT TEST (20) ACTIVITY1(10) ACTIVITY2 (10) <ul style="list-style-type: none"> <li>• MCQ for Science, Maths&amp; Social Science</li> </ul>	UNIT TEST (20) HOME WORK/ ASSIGNMENT (20) (SA-I(10 ) + SA-II(10) )

### **SYLLABUS FOR UNIT TEST -I**

The cell-its structure & its functions

### **SYLLABUS FOR UNIT TEST -II**

1. Combustion
2. Earthquakes

### **SYLLABUS FOR UNIT TEST -III**

Metals and Non-metals

### **SYLLABUS FOR UNIT TEST –IV**

Sound

### **ACTIVITY FOR FORMATIVE ASSESSMENT –II**

‘Collage’ - Microorganisms as friends

### **ACTIVITY FOR FORMATIVE ASSESSMENT –III**

Activity1 - Drawing of Ray Diagrams  
 Activity2 - MCQ



Month	Chapter	Practicals	Class-Room Activities	H.W. / Assign.	Life skills & values	Learning Objectives
<b>F.A. 2 (july-Sept.)</b>  July(21 days)	➤ Micro-organisms:- Friends or foe. (Oral Test)	<ul style="list-style-type: none"> <li>To study various micro-organisms using permanent slides.                a)Amoeba                b)Spirogyra                c)Paramoecium</li> </ul>	<ul style="list-style-type: none"> <li>Class discussion- Food preservation at homes and industries.</li> </ul>	2+1	Lifelong learning, Health & hygiene care and compassion for life forms.	1.The students will become aware of different micro-organism and their habitat. 2.The students will be able to understand the benefits and harmful effects of microorganism. 3. They Will be able to appreciate the role of microorganism in our daily life.
	Friction (Written Test)	<ul style="list-style-type: none"> <li>To observe that sliding friction depends on the nature of the surface.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstration Of differences between sliding and rolling friction.</li> </ul>	2+1	Scientific temper, Critical thinking, Effective communication.	The students will be able to classify different types of friction and will be able to explain the importance of friction in daily life.
	➤ Sources of Energy (Group Discussion)		<ul style="list-style-type: none"> <li>Discussion on advantages &amp;disadvantages of various sources of energy.</li> </ul>	2+1	Sensitization towards conservation of resources and social Responsibility.	The students will be able to classify various sources of energy and Will be able to appreciate the use of cleaner fuels.

Aug(22d ays)	<ul style="list-style-type: none"> <li>• Conservation of plants and animals. (Written Test)</li> <li>• Electric current and its chemical effects (Written Test)</li> <li>• Pollution of air (Quiz)</li> </ul>		<ul style="list-style-type: none"> <li>• Discussion on importance of conservation of biodiversity</li> <li>• Discussion on measures to control air pollution</li> </ul>	<p>2+1</p> <p>2+1</p> <p>2+1</p>	<p>Care and compassion for all life forms, social responsibility</p> <p>Scientific reasoning , logical thinking</p> <p>Sensitization towards current issues ,social responsibility</p>	<p>The students will learn about various methods of conservation of plants and animals and will be able to appreciate the importance of plants and animals.</p> <p>The students will be able to understand the relation of electricity and chemical reactions &amp; will appreciate the practical importance of electrochemical effects.</p> <p>The students will be able to understand the problem of air pollution and learn methods to conserve the environment.</p>
Sept (5 days)	REVISION S.A. - I					

Month	Lessons	Practicals	Class-room activities	H.W./ Assign.	Life –skills & values	Learning outcomes
F.A.-3 (Oct.- Nov.) Oct. (17 days)	<ul style="list-style-type: none"> <li>Metals and Non-metals (Oral Test)</li> </ul>	<ul style="list-style-type: none"> <li>To study the reaction of metals with water and acid.</li> </ul>	<ul style="list-style-type: none"> <li>Students will be asked to collect the samples of metals and non-metals found in our surroundings and study their distinguishing features.</li> </ul>	2+1	Logical reasoning	1.The students will be able to differentiate between metals and non-metals on the basis of their physical and chemical properties. 2.They will be able to perform various chemical reactions.
	<ul style="list-style-type: none"> <li>Refraction &amp; dispersion of light. (Written Test)</li> </ul>		<ul style="list-style-type: none"> <li>Drawing of ray diagrams.</li> </ul>	2+1	Scientific Temper, Logical Reasoning	1.The students will be able to appreciate the nature of light and its interaction with various optical devices. 2.They will be able to learn the various applications of lenses.
	<ul style="list-style-type: none"> <li>Crop Production &amp; its Management (Oral Test)</li> </ul>	<ul style="list-style-type: none"> <li>To study the slide of root nodules of leguminous plants to observe the bacteria</li> </ul>	<ul style="list-style-type: none"> <li>Class discussion on methods to improve agricultural produce.</li> </ul>	2+1	Lifelong Learning	1.The students will be able to learn various agricultural practices. 2.They will be able to learn the methods of crop improvement and their protection.
	<ul style="list-style-type: none"> <li>The human eye. (Written Test)</li> <li>Reproduction In animals (Written Test)</li> </ul>		<ul style="list-style-type: none"> <li>Discussion on importance of taking care of eyes</li> <li>Study of different reproductive patterns</li> </ul>	2+1 2+1	Lifelong Learning Care and compassion for all life forms , Logical thinking	1.The students will be able to learn the working of human eye. 2.They will be able to appreciate the importance of eyes in one's life. 1.The students will be able to learn the meaning and importance of reproduction. 2.They will learn various methods of reproduction in various animals. 3.They will be able to differentiate between male and female reproductive patterns.

Month	Lessons	Practicals	Class-room activities	H.W/ Assign	Life –skills &values	Learning outcomes
<b>F.A.-4 (Dec.- Jan.)</b> Dec (22)	<ul style="list-style-type: none"> <li>• Sound (Written Test)</li> </ul>	<ul style="list-style-type: none"> <li>• To produce sounds of different frequencies.</li> </ul>	<ul style="list-style-type: none"> <li>• To show the sound produced by different tuning forks.</li> </ul>	2+1	Respect for other's needs, scientific temper	1.The students will be able to understand the cause of sound production. 2.They will be able to produce different kinds of sounds. 3.They will be able to correlate the different properties of sound with daily life phenomenon.
	<ul style="list-style-type: none"> <li>• Synthetic fibres and plastics (Oral Test)</li> </ul>	<ul style="list-style-type: none"> <li>• To study the differences in properties of natural and synthetic fibres.</li> </ul>	<ul style="list-style-type: none"> <li>• Students will be asked to get samples of various fibres to study their properties.</li> </ul>	2+1	Lifelong learning , critical thinking	1.The students will be able to know the importance of synthetic fibres. 2.They will be able to classify different fibres on the basis of their properties.
	<ul style="list-style-type: none"> <li>• Reaching the age of adolescence. (Written Test)</li> </ul>		<ul style="list-style-type: none"> <li>• Group discussion on- youth and drugs adolescents and balanced diet/endocrine glands &amp;their functions in humans.</li> </ul>	2+1	Effective communication righteous conduct, gender sensitivity Scientific temper.	1.The students will become aware of adolescence problems. 2.They will learn the importance of hormones in life cycle of human beings.
	<ul style="list-style-type: none"> <li>• Stars and Solar System (Oral Test)</li> </ul>		<ul style="list-style-type: none"> <li>• Students will be told to observe the night sky for 15 days and note their observations.</li> </ul>	2+1	Life long learning	1.The students will know about the universe and arrangement of various heavenly bodies in it. 2.They will learn the role of artificial satellites in global communication.
	<ul style="list-style-type: none"> <li>• Pollution of water (Oral Test)</li> </ul>		<ul style="list-style-type: none"> <li>• Discussion on methods of water conservation</li> </ul>	2+1	Conservation of resources , social responsibility	1. The students will be able to understand the problem of water pollution and its effect on human life. 2.Theywill learn how to purify and conserve water.

**NOTE:**

\*Each student must maintain (i) two note-books for science theory (H.W & C.W) and only H.W notebooks will be checked..

➤ **Measures to enhance performance of bright students-**

- HOTS questions
- Application and skill based questions
- Problem solving questions / situational questions

➤ **Remedial measures for below average students-**

- Objective type questions
- Very short answer type questions