



# CHRIST SCHOOL

Bengaluru - 560029

## PROGRAMME OF WORK FOR THE YEAR -2019-20

CLASS: IX

SUBJECT: SCIENCE

### Physics

MONTH	TOPIC	ACTIVITY
JUNE	<b>Chapter.8 Motion (98-103)</b> <ul style="list-style-type: none"><li>• Describing motion.</li><li>• Motion along a straight line.</li><li>• Uniform motion and non-uniform motion.</li><li>• Speed with direction.</li><li>• Rate of change of velocity.</li></ul> REVISION	Solving problems related to speed and velocity
	<b>Formative Assessment-1</b>	
JULY	<b>Chapter.8 Motion (continue)</b> <ul style="list-style-type: none"><li>• Graphical representation of motion (Distance-time graph and Velocity-time graph)</li><li>• Equation of motion by graphical method (velocity- time relation, position-time relation and position-velocity relation)</li><li>• Uniform circular motion</li></ul>	
AUGUST	<b>Chapter.9 Force and Laws of motion</b> <ul style="list-style-type: none"><li>• Balanced and unbalanced forces</li><li>• First law of motion</li><li>• Inertia and Mass</li><li>• Second law of motion and mathematical formulation of second law of motion</li></ul> REVISION	
	<b>Formative Assessment-2</b>	
	<b>Chapter.9 Force and Laws of motion (continue)</b> <ul style="list-style-type: none"><li>• Third law of motion</li></ul>	
SEPTEMBER	<ul style="list-style-type: none"><li>• Conservation of Momentum</li></ul> REVISION	
	<b>Summative Assessment-1</b>	

<b>OCTOBER</b>	<b>Chapter.10 Gravitation</b> <ul style="list-style-type: none"> <li>• Universal law of gravitation and importance of the universal law of gravitation</li> <li>• Free Fall</li> <li>• To calculate the value of 'g'</li> <li>• Motion of objects under the influence of gravitational force of the earth</li> <li>• Mass and weight</li> <li>• Weight of an object on the moon</li> </ul>	
<b>NOVEMBER</b>	<b>Chapter.10 Gravitation Cont...</b> <ul style="list-style-type: none"> <li>• Thrust and pressure</li> <li>• Pressure in fluids</li> <li>• Buoyancy (why objects float or sink when placed on the surface of water)</li> <li>• Archimedes' principle</li> <li>• Relative density</li> </ul> <p style="text-align: center;"><b>REVISION</b></p>	Archimedes' principle and its applications
	<b>Formative Assessment-3</b>	
<b>DECEMBER</b>	<b>Chapter.11 Work and Energy</b> <ul style="list-style-type: none"> <li>• Scientific concept of work</li> <li>• Work done by a constant force</li> <li>• Energy</li> <li>• Forms of energy</li> <li>• Kinetic energy and Potential energy</li> <li>• Potential energy of an object at a height</li> <li>• Are various energy forms inter convertible?</li> <li>• Law of conservation of energy</li> </ul> <p>Rate of doing work Commercial unit of energy</p>	
<b>JANUARY</b>	<b>Chapter.12 Sound</b> <ul style="list-style-type: none"> <li>• Production of sound</li> <li>• Propagation of sound</li> <li>• Sound needs a material medium to travel</li> <li>• Sound waves are longitudinal waves</li> <li>• Characteristics of a sound wave</li> <li>• Speed of sound in different media</li> </ul>	Class Test
<b>FEBRUARY</b>	<b>Formative Assessment-4</b>	

	<p><b>Chapter.5 Sound (continue)</b></p> <ul style="list-style-type: none"> <li>• Echo and Reverberation</li> <li>• Uses of multiple reflection of sound</li> <li>• Range of hearing</li> <li>• Application of ultrasound</li> <li>• Sonar</li> <li>• Structure of Human Ear</li> </ul>	
<b>MARCH</b>	<b>REVISION</b>	
	<b>Summative Assessment-2</b>	

## Chemistry

<b>MONTH</b>	<b>TOPIC</b>	<b>ACTIVITY</b>
<b>JUNE</b>	<p><b>Chapter.1 Matter in our surroundings</b></p> <ul style="list-style-type: none"> <li>• Physical nature of matter</li> <li>• How small are these particles of matter?</li> <li>• Characteristics of particles of matter</li> <li>• States of matter</li> </ul> <p><b>REVISION</b></p>	
	<b>Formative Assessment-1</b>	
<b>JULY</b>	<ul style="list-style-type: none"> <li>• Can matter change its state?</li> </ul> <p><b>Chapter1. Matter in our surroundings (continue)</b></p> <ul style="list-style-type: none"> <li>• Effect of change of pressure</li> <li>• Evaporation</li> <li>• Factors affecting evaporation</li> <li>• How does evaporation cause cooling?</li> </ul>	<b>Definitions</b>
<b>AUGUST</b>	<p><b>Chapter.2 Is matter around us pure</b></p> <ul style="list-style-type: none"> <li>• Mixtures and types of mixtures</li> <li>• Solution and concentration of a solution</li> <li>• Colloidal solution and its properties</li> </ul> <p><b>REVISION</b></p>	
	<b>Formative Assessment-2</b>	
	<p><b>Chapter.2 Is matter around us pure (continue)</b></p> <ul style="list-style-type: none"> <li>• Separating the components of a mixture by different methods</li> </ul>	

<b>SEPTEMBER</b>	<b>Chapter.2 Is matter around us pure (continue)</b> <ul style="list-style-type: none"> <li>• Physical and chemical change</li> <li>• Types of pure substances (elements and compounds)</li> <li>• Differences between mixtures and compounds</li> </ul>	
	<b>REVISION</b>	
	<b>Summative Assessment-1</b>	
<b>OCTOBER</b>	<b>Chapter.3 Atoms and Molecules</b> <ul style="list-style-type: none"> <li>• Laws of chemical combination</li> <li>• Laws of constant proportions</li> <li>• Define atom</li> <li>• Modern day symbols of atoms of different elements</li> <li>• Atomic mass</li> </ul>	
<b>NOVEMBER</b>	<b>Chapter.3 Atoms and molecules (continue)</b> <ul style="list-style-type: none"> <li>• Define Molecule</li> <li>• Molecules of elements and compounds</li> <li>• Meaning of an ion</li> <li>• Writing chemical formulae</li> <li>• Formulae of simple compounds</li> <li>• Molecular mass</li> </ul>	Calculation of molecular mass
	<b>REVISION</b>	
	<b>Formative Assessment-3</b>	
<b>DECEMBER</b>	<b>Chapter.3 Atoms and molecules (continue)</b> <ul style="list-style-type: none"> <li>• Mole concept</li> <li>• Calculation of number of particles present in a substance (atoms, molecules, ions).</li> </ul>	
<b>JANUARY</b>	<b>Chapter.4 Structure of the atom</b> <ul style="list-style-type: none"> <li>• Charged particles in matter</li> <li>• Thomson's model of an atom</li> <li>• Rutherford's model of an atom and its drawbacks</li> <li>• Bohr's model of atom</li> <li>• Neutrons</li> </ul>	
<b>FEBRUARY</b>	<b>Chapter.4 Structure of the atom(cont...)</b> <ul style="list-style-type: none"> <li>• Distribution of electrons in different orbits</li> </ul>	
	<b>REVISION</b>	

	<b>Formative Assessment-4</b>	
	<ul style="list-style-type: none"> <li>• Valency</li> <li>• Atomic numbers and Mass numbers</li> <li>• Isotopes and its applications</li> </ul> <p style="text-align: center;">Isobar</p>	
<b>MARCH</b>	<b>REVISION</b>	
	<b>Summative Assessment-2</b>	

## Biology

MONTH	TOPIC	ACTIVITY
<b>JUNE</b>	<b>CHAPTER 5 : Fundamental Unit of Life</b> 5.1 – Living organisms 5.2 – Composition of cell 5.3– Structural organization of a cell	Draw and label the structures of plant cell and animal cell.  Write down the difference between prokaryotes and eukaryotes.
	<b>Formative Assessment-1</b>	
<b>JULY</b>	<b>CHAPTER 6 – Tissues</b> 6.1 – Comparison between plant and animal cells 6.2 – Plant tissues 6.3 – Animal tissues	
<b>AUGUST</b>	<b>CHAPTER 15 – Improvement of Food Resources</b> 15.1 - Improvement in crop yields	Explain the structure of neuron with a neat labelled diagram.  Microscopic identification of different animal and plant tissues.
	<b>Formative Assessment-2</b>	
<b>SEPTEMBER</b>	<b>CHAPTER 15 – Improvement of Food Resources (continued)</b> 15.2 – Animal Husbandry <b>CHAPTER 7 – Diversity in living organisms (pg: 80- 85)</b> 7.1 Basis of classification 7.2 Classification and Evolution 7.3 The Hierarchy of classification	

	<b>Summative Assessment-1</b>	
<b>OCTOBER</b>	<b>CHAPTER 7 - Diversity in living organisms continued.... (pg: 85- 88)</b> 7.4 Plantae 7.5 Animalia (invertebrates)	
<b>NOVEMBER</b>	<b>CHAPTER 7 - Diversity in living organisms continued.... (pg: 89- 96)</b> 7.5 Animalia (continued)	
	<b>Formative Assessment-3</b>	
<b>DECEMBER</b>	<b>CHAPTER 13 – Why Do We Fall Ill ?</b> 13.1 Health and its Failure 13.2 Disease and its causes 13.3 Infectious diseases	Survey – infectious disease
<b>JANUARY</b>	<b>CHAPTER 13 – Why Do We Fall Ill ?</b> 13.4 Means of spread, principles of treatment 13.5 Principles of prevention 13.6 Immunisation	
<b>FEBRUARY</b>	<b>CHAPTER 14 – Natural Resources</b> 14.1 The breath of Life: Air 14.2 Water – A Wonder Liquid	
	<b>Formative Assessment-4</b>	
	Water pollution 14.3 Mineral Riches in the soil 14.4 Biogeochemical Cycles	
<b>MARCH</b>	14.5 Ozone Layer REVISION	
	<b>Summative Assessment-2</b>	