

Term Wise Syllabus

Session : 2019-20

Class-VII (Nishtha)

Subject : Science

Term-I (April 2019 to September 2019)

Theme	Content	Suggestive Learning Outcomes	Suggestive Activities
Food	<p>Ch-1: Nutrition in Plants</p> <ul style="list-style-type: none"> ❖ Autotrophic Nutrition (Photosynthesis) <ul style="list-style-type: none"> (a) Raw materials for photosynthesis (Chlorophyll, Water, Sunlight, and Carbon dioxide) (b) Site and mechanism of photosynthesis ❖ Heterotrophic nutrition (parasitic, insectivorous and symbiotic organisms) 	<ul style="list-style-type: none"> • Identify the types of nutrition in plants. • Understand the process of photosynthesis and write word equation of photosynthesis. • Identify parts of plant involved in Photosynthesis. • Giving examples of heterotrophic nutrition in plants 	<ol style="list-style-type: none"> 1. Observe the effect on leaves due to non availability of following raw materials required for photosynthesis: <ul style="list-style-type: none"> a) air: applying Vaseline on leaves b) water: not giving water to the plant c) sunlight: keeping the plant in dark room <p style="text-align: center;"><i>Refer Science Pragati for the activities</i></p>
Food	<p>Ch-2: Nutrition in Animals</p> <ul style="list-style-type: none"> ❖ Buccal cavity (a) Tongue (b) Salivary gland (c) Teeth ❖ Human Digestive System and it's organs ❖ Processes occurring in Human Digestive system <ul style="list-style-type: none"> (a) Ingestion (b) Digestion (c) Absorption (d) Assimilation (e) Egestion 	<ul style="list-style-type: none"> • Understand the important organs in human digestive system and explain their functions • Observe and differentiate various types of teeth based on their structure and functions. • Identify and indicate various taste areas on tongue. • Draw and label the diagram of human digestive system. • Explain the key processes occurring in human digestive system. • Investigate the conversion of starch into sugar (digestion process) by saliva through iodine test. 	<ol style="list-style-type: none"> 1. Observe various types of teeth and their arrangement. 2. Test the effect of saliva on starch. 3. Identify different regions of on our tongue on the basis of taste. <p style="text-align: center;"><i>Refer Science Pragati for the activities</i></p>

Material	Ch-3 :Fibre to Fabric Animal fibre ❖ Wool ❖ Silk	<ul style="list-style-type: none"> • Identifies animal fibres • Classify fabrics based on the characteristics of its fibre. • Differentiate between animal and plant fibre by observing the steps of their processing . • Draw labelled diagram or flow chart of life cycle of silk-moth. 	<ol style="list-style-type: none"> 1. Draw/paste pictures of animals whose hair is used as wool. 2. Draw/paste stages of the life history of silk moth. <p><i>Refer Science Pragati for the activities</i></p>
Material	Ch-4:Heat ❖ Effect of Heat-Temperature (a) Measuring Temperature (b) Thermometer ❖ Transfer of Heat (a) Conduction (conductor and insulator) (b) Convection (c) Radiation	<ul style="list-style-type: none"> • Understand the limitations of human sensory system in identifying hot or cold substances and appreciate the need for scientific instruments • Using thermometer to measure temperature • Identify and explain various methods of heat transfer • Through activities, differentiate between good and bad conductors of heat. • Use of substances in daily life based on their ability to conduct heat • Explain the effect of heat on black and white surfaces 	<ol style="list-style-type: none"> 1. Read a thermometer. 2. Measure the body temperature through clinical thermometer. 3. Measure the temperature of a liquid using laboratory thermometer. 4. Study the process of conduction of heat on a metal scale. 5. Study the process of convection of heat by mixing coloured water of different temperatures 6. Study the effect of dark colour on absorption of heat. <p><i>Refer Science Pragati for the activities</i></p>
Moving things ,People and Ideas	Ch- 13: Motion and Time ❖ Periodic or Oscillatory motion (Making a simple pendulum and to measure its Time period) ❖ Measuring distance, its standard unit ❖ Measuring Time, its standard unit ❖ Distance -Time graph ❖ Measuring speed, its	<ul style="list-style-type: none"> • Explain oscillatory/ periodic motion • Make a simple pendulum and calculate its time period • Measure distance and time • Use the distance and time units of measurement in daily life • Make distance-time graph • Understand the time-distance graph and explain speed on its basis • Calculate speed using formula. 	<ol style="list-style-type: none"> 1. Make a simple pendulum and to find out the time period of an oscillation 2. Calculate speed using formula 3. Make distance-time graph <p><i>Refer Science Pragati for the activities</i></p>
Revision of syllabus for Mid -Term Examination-2019			

Term-II (October 2019 to March 2020)

Theme	Content	Suggestive Learning Outcomes	Suggestive Activities
Material	<p>Ch- 5: Acids, Bases and Salts</p> <ul style="list-style-type: none"> ❖ Identification of Acids and Bases <ul style="list-style-type: none"> (a) According to taste (b) With indicators (Turmeric and litmus paper) ❖ Neutralisation reaction <ul style="list-style-type: none"> (a) Examples from daily life (effect of ant's sting and indigestion) 	<ul style="list-style-type: none"> • Identify various substances as acids or bases on the basis of taste. • Prepare turmeric indicator and test the basic nature of substances. • Identify acids, bases and salts on the basis of change in colour of litmus paper • Understand the neutralisation process. • Apply the concept of neutralisation in daily life . 	<ol style="list-style-type: none"> 1. Make natural indicator with turmeric and identify acids and bases with the help of it. 2. Identify substance as acid or base with the help of Litmus paper. 3. Observe the process of neutralisation using lemon juice and soap water <p><i>Refer Science Pragati for the activities</i></p>
The world of living	<p>Ch-10: Respiration in Organisms</p> <ul style="list-style-type: none"> ❖ Why do we respire - Breathing ❖ How do we breath ❖ What do we breath out? ❖ Breathing in other animals ❖ Breathing under water ❖ Do plants also respire? 	<ul style="list-style-type: none"> • Identify organisms on the basis of respiratory organs. • Classify the types of respiration, • Explain the process of respiration in human. • Draw the labelled diagram of respiratory system of human. • Write the word equation of chemical reactions of Aerobic and anaerobic respiration. 	<ol style="list-style-type: none"> 1. To study mechanism of breathing in human 2. Prepare working model of Lungs. 3. Experiment to show plants and animals respire like what do we breathe out ? What do plants breathe out ? And breathing rate . 4. Effect of exhaled air on lime water. <p><i>Refer Science Pragati for the activities</i></p>
The world of living	<p>Ch-12: Reproduction in Plants</p> <ul style="list-style-type: none"> ❖ Methods of Asexual reproduction <ul style="list-style-type: none"> (a) Vegetative propagation (b) Fission (c) Spore formation ❖ Sexual reproduction <ul style="list-style-type: none"> (a) Parts of flower necessary for reproduction (b) Reproductive process (pollination, Fertilization, development of fruit and seeds, seed dispersal). 	<ul style="list-style-type: none"> • Explain the process of asexual reproduction in plants with examples • Identify the stamen and carpel in different flowers and draw diagrams • On the basis of observation, identify unisexual and bisexual flowers • Explain the process of pollination and fertilization in plants • Explain the mechanism of fruit and seed formation in plants • Explain the process of seed dispersal and its importance. 	<ol style="list-style-type: none"> 1. Grow plants (potato, carrot, bryophyllum, etc) through vegetative propagation 2. Observe spores in a fern through magnifying glass and fragmentation in spirogyra through microscope. 3. Study the parts of a flower. 4. Observe specialized structures for seed dispersal <p><i>Refer Science Pragati for the activities</i></p>

How things work	Ch-14: Electric current and Its effects ❖ Components of electric circuit (Electric cell, bulbs, switch(on,off),battery, wire). ❖ Making an Electric Circuit ❖ Symbols of electrical components ❖ Effects of electric current (a) Heating effect of current (b) Magnetic effect of current	<ul style="list-style-type: none"> • Identify the components of electric circuit and explain their functions. • Make an electric circuit • Draw the symbols for Various Components of electric circuit • Using symbols for various components, draw a circuit diagram • Demonstrate and explain the heating effect of electric current using activities • Use and explain the heating effect of electric current in daily life • Make an electromagnet and explain its Working 	<ol style="list-style-type: none"> 1. Make an electric circuit 2. Observe the heating effect of electric current on a fine wire of steel wool. 3. Make an electromagnet showcasing magnetic effect of electric current <p><i>Refer Science Pragati for the activities</i></p>
Natural Phenomena	Ch-15 :Light ❖ Characteristics of path of light ❖ Types of mirror (a) Plane mirror (b) Spherical mirror ❖ Plane Mirror (a) Characteristics of images (b) Reflection ❖ Spherical Mirrors (a) Concave and convex mirror (b) Identification and Uses ❖ Spherical Lenses ❖ Sunlight-White or Coloured.	<ul style="list-style-type: none"> • Explain the characteristics of the path of light • Explain the characteristics and uses of plain mirror and images formed by it • Identify spherical mirrors and explain their uses in daily life • Differentiate between convex and concave mirrors • Identify the convex and concave lenses and use them in daily life • Using a model, demonstrate that sunlight is made of seven colours. 	<ol style="list-style-type: none"> 1. Show that light travels in straight line 2. Observe the properties of plane Mirror (lateral inversion of image, equidistant position and same size of image) 3. Observe reflection of light by a plane mirror 4. Observe image formed by spherical mirrors 5. Make Newton disc using cardboard <p><i>Refer Science Pragati for the activities</i></p>
Moving things	Ch- 13: Motion and Time	Same as in Mid Term	
❖ Complete the syllabus by January 2020. ❖ Revision of Syllabus ❖ COMMON ANNUAL SCHOOL EXAMINATION(CASE)-2020			