

MONTHLY SYLLABUS
SESSION-2017-18
CLASS-VIII (PRATIBHA)
SUBJECT : SCIENCE

MONTH	CONTENTS
April 2017	<p>1) Crop Production And Management</p> <p>Introduction : Agricultural Practices, Basic Practices Involved in crop production, Preparation of soil, Sowing, Manuring and adding fertilizers, irrigation, protection from weeds, harvesting storage, food from animals.</p> <p>Activity :</p> <ul style="list-style-type: none"> • To collect various types of seeds. • To collect pictures/draw diagrams of various agricultural tools or machines. • To draw pictures of various methods of irrigation.
May 2017	<p>2) Microorganisms : Friends And Foe</p> <p>Introduction : Microorganisms, major groups of microorganisms, their living place, microorganisms and us, (Articles 2.1 to 2.6 only) Food Preservation, Nitrogen Fixation</p> <p>Activities :</p> <ul style="list-style-type: none"> • Pull out a gram/bean plant from the field and to study its root nodules. • To observe drops of pond water under microscope.
July 2017	<p>3) Synthetic Fibres And Plastics</p> <p>Introduction : Natural fibres synthetic fibres, types of synthetic fibres, characteristics of synthetic fibres, plastics, types of plastics, plastics as a material of choice, plastics and the environment.</p>

	<p>Activities:</p> <ul style="list-style-type: none"> • To collect different kinds of fibres. • To classify materials into Biodegradable and Non Biodegradable • To know differences between thermoplastics and thermosetting plastics. <p>5) Coal And Petroleum</p> <p>Introduction : Inexhaustible natural resources, exhaustible natural resources, coal and petroleum, natural gas, some natural resources are limited so need for their conservation.</p> <p>Activities:</p> <ul style="list-style-type: none"> • Activity 5.1 • Activity 5.2
August 2017	<p>11) Forces And Pressure</p> <p>Introduction : Force – a push or a pull, forces are due to interaction, exploring forces. A force can change the state, shape, direction and speed of an object; contact forces, non contact forces, pressure, pressure exerted by liquids and gases; Atmospheric pressure.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To study various types of forces and their impacts. • To study increase in pressure exerted by the liquids at the greater depths. • To observe the forces of attraction and repulsion between two types of a bar magnet. • To study the dependence of pressure on area. <p>12) Friction</p> <p>Introduction : Force of friction, factors affecting friction, Friction : a necessary evil, increasing and decreasing friction, wheels reduce friction, fluid friction.</p>

	<p>Activities:</p> <ul style="list-style-type: none"> • Force of friction depends on nature of surface in contact. • Wear and tear of moving objects. • To collect and display pictures of some sports and actions where friction where friction is necessary or evil.
September 2017	SA-I REVISION
October 2017	<p>4) Materials : Metals and Non-Metals</p> <p>Introduction : Physical properties of metals and non-metals chemical properties of metals and non-metals, reaction with oxygen, with water with acids, with bases, displacement reaction, uses of metals and non-metals.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To study the physical properties of metals and non-metals (NCERT Table 4.1 & 4.2) • To study the nature of oxides of metals and non-metals. • To study displacement reaction. • Reaction of metals and non-metals with acids (table 4.5) <p>6) Combustion And Flame</p> <p>Introduction : Combustion, how do we control fire? Types of combustion, flame and structure of flame, Fuel and fuel efficiency.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To study the parts of a flame. • To prepare a model of fire extinguisher. • Skit on the causes and prevention of fire in school and home (Disaster management)
November 2017	<p>8) Cell – Structure And Function</p> <p>Introduction : Discovery of cell, organisms, variation in cell</p>

	<p>shape and size cell structure and function. Parts of the cell comparison of plant and animal cell.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To understand working of a microscope. • Study of unicellular organisms. (Permanent slide) • To prepare temporary mounts of onion peel. • To prepare a temporary mount of cheek peel/cells (inner part of mouth) <p>9) Reproduction In Animals</p> <p>Introduction : Modes of reproduction, sexual reproduction, male reproductive organs, female reproductive organs and fertilization.</p> <p>Development of embryo, viviparous and oviparous animals. Young to adults, asexual reproduction by budding and binary fission.</p> <p>Activities :</p> <ul style="list-style-type: none"> • To study the various modes of asexual reproduction in Hydra and Amoeba (with the help of permanent slides) • To study the life cycle of frog/mosquito with the help of a chart/model.
<p>December 2017</p>	<p>14) Chemical Effects of Electric Current</p> <p>Introduction : Do liquids conduct electricity? Chemical effects of electric currents. Electroplating and its uses, good conductors and bad conductors.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To test the conduction of electricity through various fruits, vegetables, wood piece, metal piece and display your result in tabular form (Good Conductor/Bad Conductor) • To study the phenomenon of electroplating by simple circuit. <p>16) Light</p> <p>Introduction : Laws of reflection, regular and diffused reflection,</p>

	<p>multiple reflection, multiple images, sunlight, white or coloured, human eye-structure and function, care of eyes, visually challenged persons can read and write – Braille system.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To verify laws of reflection of light. • To study the structure of eye with the help of a chart/model. • To make your own Kaleidoscope.
January 2018	<p>18) Pollution of Air And Water</p> <p>Introduction : Air pollution, how does air get polluted? Case study : Taj Mahal, what can be done to reduce global warming? Ozone depletion.</p> <p>Water pollution, how does water get polluted? What can be done to reduce water pollution.</p> <p>Activities:</p> <ul style="list-style-type: none"> • Preparing a list about diseases caused by various types of pollutants. • To make a project/poster/slogan writing o green house effect/global warming/ozone depletion. <p>Discussion : “Every drop of water is precious”</p> <p>2) Microorganisms : Friends And Foe</p> <p>Introduction : Microorganisms, major groups of microorganisms, their living place, microorganisms and us, (Articles 2.1 to 2.6 only) Food Preservation, Nitrogen Fixation</p> <p>Activities :</p> <ul style="list-style-type: none"> • Pull out a gram/bean plant from the field and to study its root nodules. • To observe drops of pond water under microscope.
February 2018	<p>REVISION OF SA-II</p>

MONTHLY SYLLABUS

SESSION-2017-18

CLASS-VIII (NISHTHA)

SUBJECT : SCIENCE

MONTH	CONTENTS
April and May 2017	<p>1) Crop Production And Management</p> <p>Introduction : Agricultural Practices, Basic Practices Involved in crop production, Preparation of soil, Sowing, Manuring and adding fertilizers, irrigation, protection from weeds, harvesting storage, food from animals.</p> <p>Activity :</p> <ul style="list-style-type: none">• To collect various types of seeds.• To collect pictures/draw diagrams of various agricultural tools or machines.• To draw pictures of various methods of irrigation.

<p>July 2017</p>	<p>2) Microorganisms : Friends And Foe</p> <p>Introduction : Microorganisms, major groups of microorganisms, their living place, microorganisms and us, (Articles 2.1 to 2.6 only) Food Preservation, Nitrogen Fixation</p> <p>Activities :</p> <ul style="list-style-type: none"> • Pull out a gram/bean plant from the field and to study its root nodules. • To observe drops of pond water under microscope. <p>5) Coal And Petroleum</p> <p>Introduction : Inexhaustible natural resources, exhaustible natural resources, coal and petroleum, natural gas, some natural resources are limited.</p> <p>Activities:</p> <ul style="list-style-type: none"> • Activity 5.1 • Activity 5.2
<p>August 2017</p>	<p>11) Forces And Pressure</p> <p>Introduction : Force – a push or a pull, forces are due to interaction, exploring forces. A force can change the state, shape, direction and speed of an object; contact forces, non contact forces, pressure, pressure exerted by liquids and gases; Atmospheric pressure.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To study various types of forces and their impacts. • To study increase in pressure exerted by the liquids at the greater depths. • To observe the forces of attraction and repulsion between two types of a bar magnet. • To study the dependence of pressure on area.

	<p>12) Friction</p> <p>Introduction : Force of friction, factors affecting friction, Friction : a necessary evil, increasing and decreasing friction, wheels reduce friction, fluid friction.</p> <p>Activities:</p> <ul style="list-style-type: none"> • Force of friction depends on nature of surface in contact. • Wear and tear of moving objects. • To collect and display pictures of some sports and actions where friction where friction is necessary or evil.
September 2017	SA-I REVISION
October 2017	<p>6) Combustion And Flame</p> <p>Introduction : Combustion, how do we control fire? Types of combustion, flame and structure of flame, Fuel and fuel efficiency.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To study the parts of a flame. • To prepare a model of fire extinguisher. • Skit on the causes and prevention of fire in school and home (Disaster management)
November 2017	<p>8) Cell – Structure And Function</p> <p>Introduction : Discovery of cell, organisms, variation in cell shape and size cell structure and function. Parts of the cell comparison of plant and animal cell.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To understand working of a microscope. • Study of unicellular organisms. (Permanent slide) • To prepare temporary mounts of onion peel.

	<ul style="list-style-type: none"> • To prepare a temporary mount of cheek peel/cells (inner part of mouth) <p>9) Reproduction In Animals</p> <p>Introduction : Modes of reproduction, sexual reproduction, male reproductive organs, female reproductive organs and fertilization.</p> <p>Development of embryo, viviparous and oviparous animals. Young to adults, asexual reproduction by budding and binary fission.</p> <p>Activities :</p> <ul style="list-style-type: none"> • To study the various modes of asexual reproduction in Hydra and Amoeba (with the help of permanent slides) • To study the life cycle of frog/mosquito with the help of a chart/model.
December 2017	<p>16) Light</p> <p>Introduction : Laws of reflection, regular and diffused reflection, multiple reflection, multiple images, sunlight, white or coloured, human eye-structure and function, care of eyes, visually challenged persons can read and write – Braille system.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To verify laws of reflection of light. • To study the structure of eye with the help of a chart/model. • To make your own Kaleidoscope.
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	<ul style="list-style-type: none"> • Preparing a list about diseases caused by various types of pollutants. • To make a project/poster/slogan writing o green house effect/global warming/ozone depletion. <p>Discussion : “Every drop of water is precious”</p> <p>2) Microorganisms : Friends And Foe</p> <p>Introduction : Microorganisms, major groups of microorganisms, their living place, microorganisms and us, (Articles 2.1 to 2.6 only) Food Preservation, Nitrogen Fixation</p> <p>Activities :</p> <ul style="list-style-type: none"> • Pull out a gram/bean plant from the field and to study its root nodules. • To observe drops of pond water under microscope.
February 2018	REVISION OF SA-II

MONTHLY SYLLABUS

SESSION-2017-18

CLASS-VIII (NEO READERS)

SUBJECT : SCIENCE

MONTH	CONTENTS
April and May 2017	<p>1) Crop Production And Management</p> <p>Introduction : Agricultural Practices, Basic Practices Involved in crop production, Preparation of soil, Sowing, Manuring and adding fertilizers, irrigation, protection from weeds, harvesting</p>

	<p>storage, food from animals.</p> <p>Activity :</p> <ul style="list-style-type: none"> • To collect various types of seeds. • To collect pictures/draw diagrams of various agricultural tools or machines. • To draw pictures of various methods of irrigation.
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July & August 2017	<p>5) Coal And Petroleum</p> <p>Introduction : Inexhaustible natural resources, exhaustible natural resources, coal and petroleum, natural gas, some natural resources are limited.</p> <p>Activities:</p> <ul style="list-style-type: none"> • Activity 5.1 • Activity 5.2
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December 2017	<p>16) Light</p> <p>Introduction : Laws of reflection, regular and diffused reflection, multiple reflection, multiple images, sunlight, white</p>

	<p>or coloured, human eye-structure and function, care of eyes, visually challenged persons can read and write – Braille system.</p> <p>Activities:</p> <ul style="list-style-type: none"> • To verify laws of reflection of light. • To study the structure of eye with the help of a chart/model. • To make your own Kaleidoscope.
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<p>February 2018</p>	<p style="text-align: center;">REVISION OF ANNUAL EXAMS</p>