

The City School

First Term

Syllabus Coverage for 2nd Schedule Test

October 2015

SCIENCE



LEVEL	TOPIC	CONTENT STRAND	LEARNING OBJECTIVES FOR SCHEDULED TEST	LEARNING OBJECTIVES FOR CW TEST
3	Teeth and Eating	Human teeth Structure and function of teeth Growing teeth	<ul style="list-style-type: none">• Relate the shape to the function that each type of teeth perform• Enlist the two sets of human teeth.• Highlight the importance of permanent teeth• Make observations and comparison of different teeth, identify important features• Observe and compare different types of teeth and label their important features (w.r.t dentine, pulp, enamel, roots, gums)• Know that humans have teeth –molars for chewing, canines for tearing, incisors for cutting- and that teeth help us break down food into smaller particles that help us eat• Recognise that teeth are firmly held in place by roots and gums and care needed to keep gums healthy for healthy teeth• Recognise that some foods can be damaging to our teeth• Define tooth decay and how to prevent it• Observe and compare different types of teeth and label their important features <p>Know that we have two set of teeth and adult teeth have to last</p> <ul style="list-style-type: none">• Understand that teeth are held in place by roots and gums	

	<p>Characteristics of materials</p>	<p>Looking after your teeth</p> <p>Dentists (Different types of teeth; the two sets of teeth in human life; Tooth decay)</p> <p>Animal teeth (teeth of herbivores and carnivores)</p> <p>Materials</p> <p>Properties of materials</p> <p>Metals</p> <p>Choosing materials</p>	<ul style="list-style-type: none"> • Understand that healthy teeth need healthy gums • Learn and identify function of roots and gums • Know that some foods can be damaging to the teeth • Describe reasons for tooth decay • Enlist ways of protecting your teeth from tooth decay <ul style="list-style-type: none"> • Describe and explain how the teeth of herbivores are adapted to their diet • Describe and explain how the teeth of carnivores are adapted to their diet 	<ul style="list-style-type: none"> ○ Identify a variety of materials e.g. plastic, glass, rubber, metals, ceramics, wood, cotton, wool etc. ○ Identify that these materials are used to make different objects. ○ Evaluate that every material has specific properties, e.g. hard, soft, shiny, dull, strong, flexible, elastic, brittle etc. and compare materials in terms of these properties. ○ Classify materials according to their properties. ○ Investigate properties of materials for their appropriate selection for different objects. ○ Discuss why materials are chosen for specific purposes on the basis of their properties and select appropriate materials for specific purpose/uses.
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		<p>Mixture of solids and liquids</p> <p>Separating solids and liquids</p> <p>Properties of mixtures</p>		<ul style="list-style-type: none">○ Describe the term 'mixtures'○ Explain what 'separate' means a○ Describe the term 'mixtures'○ Explain what 'separate' means and be able to○ separate mixtures.○ Differentiate between sieve and a filter paper.○ Analyse mixtures and identify which ones can be separated by filtration and which ones by sieving.
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				<p>nitrogen, oxygen, argon, helium, carbon dioxide, carbon monoxide, neon, xenon, natural gas etc.)</p> <ul style="list-style-type: none">oDemonstrate that gases change shapes and flow from place to placeoState the properties of air and recognise other gases in the environment.oInvestigate presence of air spaces in different soils.oExplain that measurements and observations should be repeated if results are to be reliable.
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6	Introduction to Science	<p>What is Science?</p> <p>Important Attitudes in the Study and Practice of Science</p> <p>Skills and processes</p> <p>Safety Rules in the Laboratory</p> <p>Laboratory Apparatus</p> <p>Benefits, Abuses and Limitations of Science and Technology</p> <p>Do All Solids Dissolve in Water?</p> <p>Separating a Soluble Solid from Water</p> <p>Investigating How Solids Can Dissolve More Quickly in Water</p>	<p>Demonstrate a sound knowledge of attitudes, skills and processes involved in the study of Science.</p> <p>oApply safety rules in Science laboratory.</p> <p>oRecognise the symbols representing different hazardous substances.</p> <p>oRecognise and use different types of laboratory apparatus.</p> <p>o Evaluate the benefits, abuses and limitations of Science and technology.</p> <p>o Recognise that solids which do not dissolve in water can be separated by filtration and/or sieving.</p> <p>oSequence the steps required to separate a mixture e.g. by using a flow chart.</p> <p>oPredict which types of water contain dissolved materials and test these predictions.</p> <p>o Recognise that when solids dissolve, a clear solution is formed and solid cannot be separated by filtering.</p> <p>oRecognise that when a liquid evaporates from a solution, the solid is left behind.</p> <p>oPredict what happens when water from a solution evaporates and to test these predictions.</p>	<p>o Identify and carry out a fair test to investigate the factors which affect how fast solids dissolve.</p>
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7	<p>Classifying plants and animals</p> <p>Elements and Compounds</p> <p>Mixtures</p> <p>Solutions</p>	<p>Using keys to identify and classify living things</p> <p>What is an element?</p> <p>Classifying elements</p> <p>Uses of elements</p> <p>Properties of compounds</p> <p>Formation of compounds</p> <p>What is a mixture?</p> <p>Distinguish among Elements, Compound and Mixture.</p> <p>Separating mixture.</p> <p>Solutes, Solvents and Solutions</p> <p>Solubility</p>	<ul style="list-style-type: none"> o Construct a dichotomous key o Use simplified keys in identifying and classifying living organisms o Identify an element as the building block of matter. o Recognise that elements are classified according to their properties o Differentiate between metallic and non-metallic elements. o Recognise the chemical symbols of common elements o Describe some uses and applications of common elements o Describe compounds as substances consisting of two or more chemically combined elements. o Describe some common properties of compounds o Describe how compounds are formed. o Recognise that substances can be classified as elements, compounds and mixtures o Describe mixtures as two or more elements and or compounds that are not chemically combined. o Recognise that air is a mixture of gases and can be separated into its constituents. o Distinguish among elements, compounds and mixtures o Recognise that elements and compounds melt and boil at particular temperatures but mixtures do not. 	<ul style="list-style-type: none"> o Show an awareness of basic principals involved in some separation techniques such as filtration, evaporation, distillation, and chromatography. o Explain how the properties of constituents are used to separate them from a mixture. o Show an awareness of applications of the various separation techniques in everyday life and industries. o Distinguish among solute, solvent and solution; saturated and unsaturated solution o Explain what is meant by a concentrated and dilute solution. o Recognise that the amount of solute which dissolves in a given solvent has an upper limit o Identify the factors which affect the solubility of a solute in a solvent and recognise the importance of these factors in homes and industries.
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8	<p>Micro- organisms and Diseases</p> <p>FOOD AND DIGESTION</p>	<p>Nutrients in Food</p> <p>A Balanced Diet</p> <p>Energy Values of Food</p> <p>Digestion</p>	<ul style="list-style-type: none"> ○ Describe the mode of action antibodies against pathogens ○ Explain how immunization protects the body against some diseases ○ Understand the role of medicine in treatment of infectious diseases ○ Explain why organisms need food ○ Explain why is it important to eat a healthy diet ○ Identify food which is rich in particular nutrients ○ List the principal sources of, and describe the dietary importance of, carbohydrates, fats, proteins, vitamins , mineral salts , fibre (roughage) and water ○ Identify examples of each type of food ○ Use chemical tests to identify proteins, carbohydrates and fats ○ Define balanced diet ○ Explain the importance of balanced diet ○ Analyze energy requirement of different people ○ Describe the coordinated functions of the organs of the digestive system ○ Explain how enzymes help in digesting food 	<ul style="list-style-type: none"> ○ trace the path of food as it is being digested ○ define peristalsis ○ Describe the processes of absorption and assimilation and explain how the human gut is adapted to carry out these functions.
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