The City School

First Term Syllabus Coverage for 2nd Schedule Test October 2015 SCIENCE



LEVEL	ΤΟΡΙϹ	CONTENT STRAND	LEARNING OBJECTIVES FOR SCHEDULED TEST	LEARNING OBJECTIVES FOR CW TEST
3	Teeth and Eating	Human teeth Structure and function of teeth	 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 	
		Growing teeth	Know that we have two set of teeth and adult teeth have to last • Understand that teeth are held in place by roots and gums	

	Looking after	Understand that healthy teeth need	
	your teeth	healthy gums	
		 Learn and identify function of roots and gums 	
	Dentists	 Know that some foods can be damaging to the teeth 	
	(Different types	 Describe reasons for tooth decay 	
	of teeth;	 Enlist ways of protecting your teeth from tooth decay 	
	the two sets of		
	teeth in human		
	life; Tooth		
	decay)		
		 Describe and explain how the teeth of herbivores are adapted to their 	
	Animal teeth	diet	
	(teeth of	 Describe and explain how the teeth of carnivores are adapted to their 	
	herbivores and	diet	
	carnivores		
			\circ Identify a variety of materials e.g.
	Materials		plastic, glass, rubber, metals,
Characteristics			ceramics, wood, cotton, wool
of materials	Properties of		etc.
	materials		o Identify that these materials are
			used to make different objects.
	Metals		o Evaluate that every material has
			specific properties, e.g. hard,
	Choosing		soft, shiny, dull, strong, flexible,
	materials		elastic, brittle etc. and compare
			materials in terms of these
			properties.
			o Classify materials
			according to their
			properties.
			 Investigate properties of
			materials for their appropriate
			selection for different objects.
			o Discuss why materials are
			chosen for specific purposes
			on the basis of their
			properties and select
			appropriate materials for
			specific purpose/uses.

4	Moving and	Moving	Describe that animals with the skeleton have muscles attached to	
	growing	Ū	the bones	
			• Describe that muscle has to contract (shorten) to make a bone move	
			Explain that muscles act in pairs	
		Muscles and	• Investigate that when someone is exercising or moving fast, the muscles	
		exercise	work hard.	
			 Compare the human skeleton with that of animals. 	
		Skeleton problems	 Recognise the need and uses of skeleton, bones and muscles 	
	Solids, liquids and	Sorting	Make observations and comparisons relating to exercise and rest.	
	how they can be	Sorting things		
	separated	tinings	• Explain what 'separate' means and be able to separate mixtures.	
	Separated	Measuring	• Separate a solution by filtering and a mixture by sieving.	
		volumes	Know that solids consisting of very small pieces behave like liquids in	
			some ways	
			 Know that solids can be mixed together and it is often possible to get the original materials back 	
			Choose appropriate apparatus for separating a mixture of solids	
		Flowing	Identify that matter can be solid, liquid or gas	
		solids	 Identify solids and liquids 	
		Europeine and	• Recognise that there are liquids other than water.	
		Freezing and melting	•Know that there are liquids other than water \circ Recognise differences	
		menning	between solids, liquids in terms of ease of flow, shape and volume.	
			 Analyse that liquids do not change in volume when they are poured into different container 	
			•Relate that solids consisting of very small pieces behave like liquids in	
		Investigating melting	some ways.	
		meiting	•Know that the same material can exist as both solid and liquid	
			•State main differences between behaviour of solids and liquids and	
			recognise its shape changes upon heating or cooling to cause a change in	
		Melting and	state	
		freezing points	• Explain that liquids can be changed to a solid by cooling, and this is known	
			as freezing or solidifying	
			•Explain that solid can be changed to a liquid by heating, and this is	
			known as melting.	
			• Recognise that melting point of different solids is different.(different	
			solids have a different temperature at which they melt)	
			• Explain the meaning of the term 'melting'	
			•and 'freezing'	
			• Analyse that melting and solidifying or freezing are changes that can be	
			reversed and that they are the reverse of each other.	

Mixture of solids and liquids Separating solids and liquids Properties of mixtures		 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.
---	--	--

5	Keeping	Changing	 Discuss why we breathe and how we breathe. 	
5	Healthy	pulse rates	oDiscuss that more blood is needed by the muscles when they work	
	,		harder, and so the heart beats faster, causing an increase in pulse rate.	
			oState that lungs use oxygen from air.	
			oldentify the causes for blockage of	
		Heart bypass	arteries.	
		surgery	oDescribe how a bypass surgery is carried out.	
			oRelate eating habits and physical activity (such as exercise) to proper	
		On the pulse	functioning of heart.	
			oDiscuss that drugs are substances that have an effect on the body,	
		Drugs	and that some of these effects are harmful.	
			oDiscuss that medicines are type of drug and may have side effects, and	
			that they should be used by following the instructions	
			oExplain why alcohol and nicotine are considered to have harmful effects	
			on the body.	
			Identify materials on the basis of their properties.	
	Gases around us	Solids, Liquids	oDifferentiate between solids, liquids and gases.	
		and gases	o State that gases are different from solids and liquids as they do not	
		Air is real!	maintain their shape and volume.	
		Investigating	oKnow that gases flow more easily than liquids, and in all directions	
		air spaces	oldentify and describe differences in properties of solids, liquids and	
			gases	
			oDefine mass	
			oMeasure mass using a beam balance	
			oState the unit if measuring mass	
			oInvestigate to learn that air has weight	
			and is all around us.	
			oProvide evidence that air is real, Explain why observations and	
			measurements need to be repeated.	
		Different	oAppraise volumes accurately using measuring cylinders or jug	
		sorts of gases		
				Explain that air is made of different
				gases
		Focus on: Gases and		oList the names of some of these
		Lighting		gases
				and state how they are useful.
				oKnow that
				oDefine and recognise the properties
				of
				gases, their names and uses.(e.g.

	nitrogen, oxygen, argon, helium, carbon dioxide, carbon monoxide, neon, xenon, natural gas etc.) oDemonstrate that gases change shapes and flow from place to place oState 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.

-	Latin du 11 - 1			Г
6	Introduction to Science	What is Science?	Demonstrate a sound knowledge of attitudes, skills and processes involved in the study of Science.	
		Important		
		Attitudes in the		
		Study and		
		Practice of		
		Science		
		Science		
		Skills and	oApply safety rules in Science laboratory.	
		processes	oRecognise the symbols representing	
			different hazardous substances.	
		Safety Rules in	oRecognise and use different types of laboratory apparatus.	
		the Laboratory		
		Laboratory		
		Apparatus		
		Benefits, Abuses	o Evaluate the benefits, abuses and limitations of Science and	
		and Limitations	technology.	
		of Science and		
		Technology		
		Do All		
		Solids	o Recognise that solids which do not dissolve in water can be	
		Dissolve in	separated by filtration and/or sieving.	
		Water?	oSequence the steps required to separate a mixture e.g. by using a flow	
			chart.	
			oPredict which types of water contain dissolved materials and test	
			these predictions.	
		Concreting	o Recognise that when solids dissolve, a clear solution is formed and	
		Separating a Soluble Solid	solid cannot be separated by filtering. oRecognise that when a liquid evaporates from a solution, the solid is	
		from Water	left behind.	
			o Predict what happens when water from a solution evaporates and to	
			test these predictions.	
		Investigating How		 Identify and carry out a fair test to investigate the factors which affect
		Solids Can Dissolve More Quickly in		how fast solids dissolve.
		Water		
	1	water		

	Classifying plants	Using keys to	 Construct a dichotomous key 	
_	and animals	identify and classify	oUse simplified keys in identifying and classifying living organisms	
7		living things	ouse simplified keys in identifying and classifying living organisms	
	Element s and	What is an	\circ Identify an element as the building block of matter.	
	Compounds	element?	 Recognise that elements are classified according to their 	
			properties	
		Classifying	o Differentiate between metallic and non- metallic elements.	
		elements	o Recognise the chemical symbols of common elements	
			oDescribe some uses and applications of common elements	
	Mixtures		oDescribe compounds as substances consisting of two or more chemically	
	IVIIACULES		combined elements.	
		Uses of elements	oDescribe some common properties of compounds	
		oses of clements	oDescribe how compounds are formed.	
		Properties of	oRecognise that substances can be classified as elements, compounds and	
		compounds	mixtures	
		Formation of		
		compounds	oDescribe mixtures as two or more elements and or compounds that are	oShow an awareness of basic
			not chemically combined.	principals involved in some
		What is a	oRecognise that air is a mixture of gases and can be separated into its	separation techniques such as
		mixture?	constituents.	filtration, evaporation, distillation,
			 Distinguish among elements, compounds and mixtures 	and chromatography.
		Distinguish	oRecognise that elements and compounds melt and boil at particular	oExplain how the properties of
		among	temperatures but mixtures do not.	constituents are used to separate
		Elements,		them from a mixture.
		Compound and		oShow an awareness of applications of
		Mixture.		the various separation techniques in
				everyday life and industries.
		Separating mixture.		 Distinguish among solute, solvent
				and solution; saturated and unsaturated solution
				 Explain what is meant by a
	Solutions	Solutes, Solvents		concentrated and dilute solution.
		and Solutions		 Recognise that the amount of
				solute which dissolves in a given
		Solubility		solvent has an upper limit
				• Identify the factors which affect the
				solubility of a solute in a solvent
				and recognise the importance of
				these factors in homes and industries.
				industries.

8	Micro- organisms and Diseases		 Describe the mode of action antibodies against pathogens Explain how immunization protects the body against some diseases 	
			o Understand the role of medicine in treatment of infectious diseases	
	FOOD AND DIGESTION	Nutrients in Food	 Explain why organisms need food 	
	DIGESTION		 Explain why is it important to eat a healthy diet Identify food which is rich in particular nutrients 	
		A Balanced Diet	o List the principal sources of, and describe the dietary importance of,	
		Energy Values of Food	carbohydrates, fats, proteins, vitamins , mineral salts , fibre (roughage) and water	
		1000	o Identify examples of each type of food	
		Digestion	O Use chemical tests to identify proteins, carbohydrates and fatsO Define balanced diet	
			o Explain the importance of balanced diet	\circ trace the path of food as it
			o Analyze energy requirement of different people	is being digested o define peristalsis
			o Describe the coordinated functions of the organs of the digestive system o Explain how enzymes help in digesting food	 Describe the processes of absorption and assimilation and explain how the human gut is adapted to carry out these functions.