

**INDIAN SCHOOL MUSCAT
MIDDLE SECTION
ANNUAL SYLLABUS 2019 – 2020
CLASS - VIII**

SUBJECT :SCIENCE			
MONTH	TOPIC	SUB TOPIC	TEACHING AIDS
			DIGITAL TOOLS (DS / Other Links)
APRIL	Stars and Solar system	*The Moon *The Stars *Constellations	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=jru0TjPL3F4 • https://www.youtube.com/watch?v=23rZtlbQ0i8 • https://www.youtube.com/watch?v=FzHlnxi2bJg&list=PLHOGBLPrsnMrradisdr1X34T5l2b3loTL <p>DS- *solar and lunar eclipsehttp://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_16/c8_16_01/c8_16_01_08/index.html</p> <p>*constellations--http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_16/c8_16_02/c8_16_02_02/index.html</p>
APRIL	Stars and Solar system Force and Pressure	*The Solar system *Some other members of the Solar System *Review and Test Force – A push or a pull	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=Qd6nLM2QIWw • https://www.youtube.com/watch?v=FzHlnxi2bJg&list=PLHOGBLPrsnMrradisdr1X34T5l2b3loTL <p>DS- *solar system</p> <ul style="list-style-type: none"> • https://www.youtube.com/watch?v=_LdcxCdB-s8
APRIL	Force and Pressure	*Forces are due to an interaction *Exploring forces *Force can change the state of motion *Contact forces	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=nk35aGqJ-F8 • https://www.youtube.com/watch?v=W55qMEF1a_E • https://www.youtube.com/watch?v=N55Phl01yTw <p>DS -* Force http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_10/c8_10_01/player.html</p> <p>-*Effect of force- http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/forceandpressure/effectsofforce/index.html</p>

		Non-contact forces	https://www.youtube.com/watch?v=nk35aGqJ-F8 https://www.youtube.com/watch?v=SybIX2nEn1E DS- Contact & Non contact forces - http://108.179.198.54:85/schcontent/FPix/webroot/index.html?topic=VIII/P121708 http://108.179.198.54:85/schcontent/FPix/webroot/index.html?topic=VIII/P121707
APRIL- MAY	Force and Pressure	*Pressure *Pressure exerted by liquids and gases *Atmospheric pressure *Review and Test	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=zILpKzPz84Q (don't memorise) • https://www.youtube.com/watch?v=5UnNfkX3Qc4 (applications of pressure) • https://www.youtube.com/watch?v=Cvp6mLWbgaM • https://www.youtube.com/watch?v=DrWIDg0AYZQ • https://www.youtube.com/watch?v=G7NE19NVaAg • https://www.youtube.com/watch?v=a7SszrO3rP4 DS- *Pressure- http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_10/c8_10_03/c8_10_03_02/index.html * Atmospheric Pressure- http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_10/c8_10_03/c8_10_03_03/index.html *Pressure of solids & Liquids- http://108.179.198.54:85/schcontent/FPix/webroot/index.html?topic=VIII/p121734
	Friction	Force of friction *Factors affecting friction	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=n2gQs1mcZHA • https://www.youtube.com/watch?v=ybpFEB6Mt88
MAY	Friction	*Friction: A necessary evil Increasing and reducing friction *Wheels reduce friction	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=CpoAmQZ3n_4 • https://www.youtube.com/watch?v=HRe90ySP38U • https://www.youtube.com/watch?v=9SMp-jnh8lg • https://www.youtube.com/watch?v=ybpFEB6Mt88 D.S.- *Friction *Types of Friction *Fluid Friction *Static & sliding Friction
MAY	Friction	*Fluid friction *Review and Test*	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=ZjIBIUvqnPo D.S.-increasing & reducing Friction- http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_11/c8_11_01/c8_11_01_05/index.html Friction a necessary evil- http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/friction/frictionanecessar yevil/index.html bike brakes- http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_11/c8_11_01/c8_11_01_02/index.html

	Cell Structure and functions	Discovery of the cell *The Cell *Organisms show variety in cell number, shape and size Revision for periodic test	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=vox4Rw_PFcQ • https://www.youtube.com/watch?v=m75ZGNZkbAw • https://www.youtube.com/watch?v=zTa4j6eRV0s D.S- Living Cell- http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_07/c8_07_01/c8_07_01_01/index.html cell theory- http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_07/c8_07_01/c8_07_01_03/index.html
MAY	Cell Structure and functions	*Cell structure and Function Parts of the cell *Comparison of plant and animal cell *Review and Test	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=URUJD5NEXC8 • https://www.youtube.com/watch?v=MfopLillOeA • https://www.youtube.com/watch?v=Th0bsASzmM • https://www.slideshare.net/sasipalakkad2000/cells D S- *Parts of cell * Prokaryotic and eukaryotic cell * Plant and animal cell
	Synthetic fibres and Plastics	What are synthetic fibres Types of synthetic fibres	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=nnbcleh4B5Q • https://www.youtube.com/watch?v=xmrdtDurPXQ
SUMMER PROJECT: Crop production and management, Conservation of plants and animals May 29- July 28 Summer vacation			
JULY	Synthetic fibres and Plastics	*Types of synthetic fibres (contd) *Characteristics of synthetic fibres *Plastics *Plastics as materials of choice	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=xTr7QkpXtE4 • https://www.youtube.com/watch?v=8pAWZfO-VRw • https://www.youtube.com/watch?v=qSJBZwbCpeA • https://www.youtube.com/watch?v=rhFc477fs6s DS- *Synthetic fibres *What Is Thermosetting and Thermosoftening Polymers *Plastics

AUGUST	Synthetic fibres and Plastics Coal and petroleum	*Plastics and the environment *Review and Test *Coal *Petroleum	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=hYdygy7ZD-0 • https://www.youtube.com/watch?v=8Xi746JlrvE DS_ *plastic and environment/animation http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_02/c8_02_01/player.html <ul style="list-style-type: none"> • https://www.youtube.com/watch?v=S352O39Rc0Y • https://www.youtube.com/watch?v=JZdvsQzOKuk • https://www.youtube.com/watch?v=PYMWUz7TC3A EID AL ADHA HOLIDAYS
AUGUST	Coal and petroleum Combustion and flame	* Natural Gas *Some natural resources are limited *Review and Test *What is combustion *How do we control fire *Types of combustion	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=EYeSBNBCjx4 D.S-Renewable energy Non Renewable energy Natural resources Fossil fuel: coal <ul style="list-style-type: none"> • https://www.youtube.com/watch?v=MxRiYBc0yXE • https://www.youtube.com/watch?v=gw926jR8xkQ
	Combustion and flame	*Flame *Structure of a Flame What is fuel *Fuel efficiency *Review and Test	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=jAVqgbLicGA • https://www.youtube.com/watch?v=uL3FOvjRwdY D.S- *Combustion— http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_05/c8_05_01/player.html Flame--- http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/combustionandflame/flame/index.html
SEPTEMBER	Pollution of Air and Water	Air pollution *How does air get polluted *Case study – The TajMahal *Greenhouse effect	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=gQMRC3XCqsU • https://www.youtube.com/watch?v=H8NqvkXyvkY • https://www.youtube.com/watch?v=s1JkpCIh5CQ • https://www.youtube.com/watch?v=UJiKe3y6RXs • https://www.youtube.com/watch?v=GQ4t7Dk-Qhg • https://www.youtube.com/watch?v=IBfupv8dXq8

		<p>*What can be done</p> <p>*Water Pollution</p> <p>*How does water get polluted</p> <p>*What is potable water and how is water purified</p> <p>*What can be done</p>	<p>D.S- *Air pollutants</p> <p>*Acid rain</p> <p>*Green house effect</p> <p>*Global warming</p> <p>*Acid precipitation</p> <p>*Water pollution</p>
REVISION FOR FIRST TERM EXAM			
FIRST TERM EXAM BEGINS			
OCTOBER	Light	<p>*What makes things visible</p> <p>*Laws of reflection</p> <p>*Regular and diffused reflection</p> <p>*Reflected light can be reflected again</p> <p>*Kaleidoscope</p>	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=dwxag4c9K6k • https://www.youtube.com/watch?v=OrobTDEYs2M • https://www.youtube.com/watch?v=a1kFMSpvesU • https://www.youtube.com/watch?v=lgzOks88c4U <p>DS-*Laws of reflection---http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_15/c8_15_01/c8_15_01_02/index.html</p> <p>*image formation in plane mirrors-- http://108.179.198.54:85/schcontent/FPix/webroot/index.html?topic=VIII/P121164</p> <p>DS –Kaleidoscope-- http://108.179.198.54:85/schcontent/FPix/webroot/index.html?topic=VIII/p121737</p>
	Light	<p>*Sunlight white or coloured</p> <p>*What is inside our eyes</p> <p>*Care of eyes</p> <p>*Visually challenged persons can read and write</p>	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=Wx0GIDvyMIY • https://www.youtube.com/watch?v=iinlagqrL6Q <p>DS-Parts of the Human eye---http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_15/c8_15_02/c8_15_02_02/index.html</p>
	Microorganisms	<p>*Micro organisms</p> <p>*Where do micro organisms live</p>	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=EsCe6qPz6tM <p>DS- * Microorganisms-- http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/microorganismfriendandfoe/microorganisms/index.html</p> <p>*Microorganisms our friend--</p>

			http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/microorganismfriendandfoe/microorganismourfriends/index.html *Production of medicine http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/microorganismfriendandfoe/productionofmedicine/index.html
	Microorganisms	*Micro organisms and Us *Harmful micro organisms *Food preservation	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=PQGu5Z- C-w • https://www.youtube.com/watch?v=I_lauMkOMi0 • https://www.youtube.com/watch?v=ZXYZYKfjNBg • https://www.youtube.com/watch?v=MJ0GQbxRfLE DS- *Harmful Microorganisms- http://108.179.198.54:85/schcontent/science/content/6-8_Science/c8/c8_01/c8_01_02/player.html *Food Preservation--- http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/microorganismfriendandfoe/foodpreservation/index.html
	Microorganisms	*Nitrogen fixation *Nitrogen cycle *Review and Test	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=UxvAEAHvB2s • https://www.youtube.com/watch?v=4IWcf_6wKy8 DS- Nitrogen Fixation https://www.youtube.com/watch?v=qzh7ZzJQJ84 Nitrogen Cycle- https://www.youtube.com/watch?v=LbBgPekjiyc D.S-*Nitrogen Fixation-- http://108.179.198.54:85/schcontent/FPix/webroot/index.html?topic=VIII/B121098 *Nitrogen Cycle--- http://108.179.198.54:85/schcontent/FPix/webroot/index.html?topic=VIII/B121309
NOVEMBER	Materials: Metals and Non Metals	*Physical properties of metals and non-metals *Chemical properties of metals and non-metals	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=CMUn4yQweg0 • https://www.youtube.com/watch?v=fjHplFxFg8 DS –* Physical & chemical properties of metals & non metals *Reaction with oxygen
	Materials: Metals and Non Metals	*Chemical properties of metals and non-metals(contd) *Uses *Review and Test	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=QsbRqTYvthg • https://www.youtube.com/watch?v=ugHfiwJWGG8 DS-*Reaction with water *Reaction with acids *Reaction with bases *Uses
	Sound	*Sound is produced by a vibrating body *Sound produced	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=Dz2Lj_cJ5QM D.S-*Sound *How hearing works * How sound reaches you *Types of instruments

		by humans	
	Sound	*Sound needs a medium of propagation *We hear sound through our ears *Amplitude, Time period and frequency of a vibration	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=Na5RntekuQQ • https://www.youtube.com/watch?v=p3Oy4lodZU4 • https://www.youtube.com/watch?v=IGYUVEj05yU • https://www.youtube.com/watch?v=-_xZZt99MzY <p>D.S-* Propagation of sound through different media * Sound Waves * Parts of the Human Ear * Cochlea *Sound quality *Speed of sound *pitch *Sound intensity</p>
DECEMBER	Sound	*Audible and inaudible sounds *Noise and Music *Noise pollution *Review and Test	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=XV-gwpFM3d4 • https://www.youtube.com/watch?v=DztZDNDUaiQ • https://www.youtube.com/watch?v=Sp2AKM3B3H4 • https://www.youtube.com/watch?v=DdImG-jphkM- <p>DS- *Audible and inaudible sounds * Noise</p>
	Chemical Effects Of Electric Current	*Do liquids conduct electricity *Chemical effects of electric current	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=xA6FWmWvJ6A • https://www.youtube.com/watch?v=8HP3y58y4kU • https://www.youtube.com/watch?v=qHxDHu9wGAw <p>DS--* Chemical effects of electric current--- http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/chemicaleffectsofelectriccurrent/chemicaleffectsofelectriccurrent/index.html *Electrolysis-- http://108.179.198.54:85/schcontent/FPix/webroot/index.html?topic=XII/Chemistry/c121275</p>
	Chemical Effects Of Electric Current	*Electroplating *Review and Test	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=_RCqNwnTztg • https://www.youtube.com/watch?v=7U2mI_JJ0ZU <p>DS---* Electroplating--- http://108.179.198.54:85/schcontent/FPix/webroot/index.html?topic=VIII/P121122</p>
WINTER BREAK			
JANUARY	Some Natural Phenomena	*Lightning *Charging by rubbing *Types of charges and their	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=WwPf60HaPJo • https://www.youtube.com/watch?v=dqwm36hj46Q • https://www.youtube.com/watch?v=7G0SO3oj1eg <p>D.S.-* Lightning and thunder---http://108.179.198.54:85/schcontent/science/content/6-</p>

		<p>interaction</p> <p>Revision for periodic test</p>	<p>8 Science/c8/c8_14/c8_14_01/c8_14_01_07/index.html</p> <p>*Electric charge---http://108.179.198.54:85/schcontent/science/content/6-8 Science/c8/c8_14/c8_14_01/c8_14_01_01/index.html</p> <p>*Characteristics of electric charge--- http://108.179.198.54:85/schcontent/science/content/6-8 Science/c8/c8_14/c8_14_01/c8_14_01_02/index.html</p> <p>*Charging by contact---http://108.179.198.54:85/schcontent/science/content/6-8 Science/c8/c8_14/c8_14_01/c8_14_01_03/index.html</p> <p>Charging by induction----- http://108.179.198.54:85/schcontent/science/content/6-8 Science/c8/c8_14/c8_14_01/c8_14_01_04/index.html</p>
	Some Natural Phenomena	<p>*The story of lightning.</p> <p>*Lightning safety</p> <p>*Review and Test</p>	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=4niTIOYYRYI • tps://www.youtube.com/watch?v=XkB8V4CHI2o <p>D.S-*conductors and insulators--- http://108.179.198.54:85/schcontent/science/content/6-8 Science/c8/c8_14/c8_14_01/c8_14_01_05/index.html</p> <p>*static electricity---http://108.179.198.54:85/schcontent/science/content/6-8 Science/c8/c8_14/c8_14_01/c8_14_01_06/index.html</p> <p>* Electroscopes and Earthing--- http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/somenaturalphenomena/electroscopeandearthing/index.html</p> <p>* Electric discharge and lightning---- http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/somenaturalphenomena/electricdischargelightning/index.html</p>
	Reaching The Age of Adolescence	<p>*Adolescence and puberty</p> <p>*Changes at puberty</p> <p>*Secondary sexual characteristics</p> <p>*Role of hormones in initiating reproductive function</p>	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=TIfsGKDoVIQ • https://www.youtube.com/watch?v=J8PyEVacaVA <p>D.S.-</p> <p>*Role of hormones in the Human body-- http://108.179.198.54:85/schcontent/science/content/6-8 Science/c8/c8_09/c8_09_02/player.html</p>
	Reaching The Age of Adolescence	<p>*Reproductive phase of life in humans</p> <p>*How is sex of the baby determined</p> <p>*Hormones other than sex hormones</p>	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=rJOOxIFs9Is • https://www.youtube.com/watch?v=5XWFFTUx5gQ • https://www.youtube.com/watch?v=HXPCQBD_WGI <p>D.S.-*Sex Determination in Humans--- http://108.179.198.54:85/schcontent/science/content/6-8 Science/c8/c8_09/c8_09_03/player.html</p> <p>*Role of hormones in completing the life history of insects and frog-- http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/reachingtheageofadolescence/roleofhormoneincompletingthelifehistoryofinsectsandfrogs/index.html</p>

		<p>*Role of hormones in completing the life history of insects and frog</p> <p>*Review and Test</p>	
FEBRUARY	Reproduction In Animals	<p>*Modes of reproduction</p> <p>*Fertilization</p> <p>*Development of embryo</p>	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=ZxB7URqYVbY <p>DS- *Modes of reproduction</p> <p>*Fertilization</p>
	Reproduction In Animals	<p>*Viviparous and oviparous</p> <p>*Asexual reproduction</p> <p>*Review and Test</p>	<ul style="list-style-type: none"> • https://www.youtube.com/watch?v=H5iN5gsUzG1 • https://www.youtube.com/watch?v=2WNoErUFAvI <p>DS- * Asexual reproduction---</p> <p>http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/reproductioninanimals/asexualreproduction/index.html</p> <p>*Oviparous and Viviparous animals--</p> <p>http://108.179.198.54:85/schcontent/edulearn/Class8/content/science/reproductioninanimals/viviparousandoviparousanimals/index.html</p>
	REVISION FOR FINAL EXAM		
	FINAL EXAM BEGINS		