



MAHARAJA AGARSAIN PUBLIC SCHOOL

a Cambridge International School

Ashok Vihar, Delhi

CLASS - VIII

SUBJECT: SCIENCE

SESSION: 2023-24

Prachi Science by S.K. Jain

DURATION	SYLLABUS COVERED	SYLLABUS TESTED	SUBJECT ENRICHMENT/PRACTICAL/ ENGLISH/ CONVERSATION/ VISUAL STIMULUS	LEARNING OUTCOMES SWBAT	RESOURCES	SDG
PT1 (JULY- AUG)	CH-8 Force and Pressure	CH-8 Force and Pressure CH-2 Microorganisms friend and foe. PT1 : 21/08/2023. SYLLABUS COMPLETION DATE. 30/04/23	Activity 2 Experimental Investigation Gravitational force Magnetic force Electrostatic force Force and area of contact Activity- flash card to show various effects of force. To show that liquids exert equal pressure at same depth As depth increases pressure increases	Relate and apply their knowledge about force its types and its effects in real life situations. Analyze motion of an object when force is applied in the same and opposite direction in order to conclude that forces in same direction add while forces in opposite directions subtract Illustrate with examples from daily life an action that causes change in movement or shape without contact between two objects in order to define non-contact forces. Derive the formula and calculate pressure for given force applied on a given area in order to explain common daily phenomenon requirement of sharp knife etc.	https://docs.google.com/presentation/d/1wz0A3vbEz9JWjguR37ZzUDt65FXDhkyXYtREipkDi8/edit#slide=id.p https://www.youtube.com/watch?v=TPLsYCwouUk https://www.youtube.com/watch?v=Cvp6mLWbgaM- https://www.liveworksheets.com/nt1734190p	NO 4 Quality education-
	CH-2 Microorganisms friend and foe.		Activity - Experimental investigation Effect of yeast on dough Activity - Experimental investigation Fermentation of sugar by yeast	Explore the role of microorganisms in life. Recall four major categories of microorganisms (bacteria, fungi, protozoa, algae) Explain how microorganism help in increasing the nitrogen in soil to the agricultural uses of microorganisms	https://docs.google.com/presentation/d/1W9FXXQimrUEcA-Ssw4FOvQgglqG07HEvU19QNbH-OL8/edit#slide=id.p https://www.youtube.com/watch?v=cTKl4hZwnZg	No. 3 Good health and well being

				List various methods of preserving food in order to demonstrate the restriction of growth of microorganism	https://quizizz.com/admin/quiz/5ebb27e79d55c6001e591959/microorganisms	
	CH-3 Coal and petroleum		Activity 1 Observation and classification To classify materials as natural or human made Activity 2 Experimental Investigation To demonstrate destructive distillation of coal in the laboratory	Classify Exhaustible and inexhaustible natural-resources. Discuss the process of formation of coal to explain why coal is an exhaustible natural resource Classify different constituents of petroleum according to their use in daily life in order to observe various by products besides fuel of petroleum that there is a large number of products obtained from petroleum other than fuel	https://docs.google.com/presentation/d/1gcpZ9fcJ2ChJXEogDQAUDDZqI4vQfNXybtmern5qlo/edit#slide=id.p https://www.youtube.com/watch?v=NuykSDW65w https://www.youtube.com/watch?v=pWW6bS_SaPZk https://quizizz.com/admin/quiz/5eff6f83eed5df001b862d8a/coal-and-petroleum-grade	No. 7 Clean and affordable energy
	CH-4 Combustion and flame		Activity - Experimental investigation Conditions needed for combustion Activity - Experimental investigation Combustion and ignition temperature	Conduct simple investigation to seek answer to query like – What are the conditions required for combustion Define ignition temperature to explain why minimum temperature is required for a substance to catch fire Differentiate between the type of combustion taking place in gas stove, burning of phosphorus and bursting of firecrackers to assess rapid combustion, spontaneous combustion and explosion Explain the different parts of flame in order to explain why goldsmiths blow the outermost zone of a flame to melt gold and silver List harmful by-products of burning fuel to be aware of its harmful effects on individuals and environment such as global warming and acid rains	https://docs.google.com/presentation/d/1sIqWAXZDBFB9t2v4n0Fa2y6ZdB0cNvxcZOkB5ON_mtM/edit#slide=id.ge33a944bf5_0_0 https://www.youtube.com/watch?v=zq7zX6ns_tY https://www.youtube.com/watch?v=gw926jR8xkQ(1.34mins) https://edpuzzle.com/media/60322cef9e4bdb42707b31e2	No. 7 Clean and affordable energy
	CH-9 Friction		Activity - Experimental Investigation To investigate friction on different surfaces To investigate that rolling friction is less than sliding friction	Apply scientific learning in daily life like increasing/ reducing friction (soles of the shoes are grooved for better grip). Discover the factors that cause friction when two bodies moving relatively in order to explain why it is easier to move an object on a smooth surface compared to a rough surface	https://docs.google.com/presentation/d/1Le-FELS4-jRtMV_gdgZP2IHpWSnJPR5Ln8uaApGM5Tw/edit#slide=id.p https://www.youtube.com/watch?v=M8L1ytVuABA https://edpuzzle.com/media/5edee9163e236f3f06f45811	NO 4 Quality education -

				Differentiate between rolling friction and sliding friction in order to explain the use of different friction reducing strategies		
HALF YEARLY (SEP)	CH-10 Sound	CH-8 Force and Pressure CH-2 Microorganisms CH-3 Coal and petroleum CH-4 Combustion and flame CH-9 Friction CH-10 Sound CH-12 Some Natural Phenomenon SYLLABUS COMPLETION DATE 31/08/2023	Activity- Experimental Investigation To show that sound can travel through solid, liquids and gas Sound requires a medium to travel	Understand the characteristics of sound to distinguish different types of sound Describe the structure and function of an eardrum in order to explain how humans hear sound Differentiate between frequency and amplitude in order to describe factors responsible for loudness and pitch of the sound List the harmful effects of noise pollution in order to mitigate it	https://docs.google.com/presentation/d/1faTa3HTABj6I3SHy-Xg1DNReD7Pga3jCFE7kgc_mauA/edit#slide=id.ged137ade8e_0_0 https://www.youtube.com/watch?v=BcEjzCVDO6Q https://www.youtube.com/watch?v=Dz2Lj_cJ5QM https://www.youtube.com/watch?v=p3Oy4lodZU4	- NO 4 Quality education
	CH-12 Some Natural phenomenon		Activity- Experimental Investigation Concept of electrical charge	To understand various natural phenomenon occurring around in daily life Analyze if two charged objects attract or repel each other Predict how lightning travels from the cloud to the ground	https://docs.google.com/presentation/d/1LLfLJIG31ciyvt7POgmVDOF5mvfg1TN/edit#slide=id.p1	No.13 Climate action
PT2 (NOV-DEC)	CH-1 Crop production and management.	CH-1 Crop production and management. CH- 6 Reproduction in animals. PT2 : 18/12/2023	Activity 1 – Experimental investigation To separate healthy seeds from unhealthy ones Activity 2 Experimental investigation Nutrients and plant growth	Show awareness for using resources judiciously like making controlled use of fertilizers and pesticides Distinguish between manure and fertilizers to identify ways in which nutrients in soil is replenished Sequence the tasks involved in cultivating the crop to list major steps of agricultural practices Describe the process of crop rotation to explain ways in which nutrients in soil is replenished	https://docs.google.com/presentation/d/1jZ7cN4wAHONI7d2pqj0dI3TXVlvOUvTg0FR3Y4XByDE/edit#slide=id.p https://www.youtube.com/watch?v=Oo1qFLr18tE https://quizizz.com/admin/quiz/5ebbf2cd8581e001b4e97cf/crop-production-and-management-class-8	No.2 ZERO HUNGER

		SYLLABUS COMPLETION DATE 05/11/23				
	CH-6 Reproduction in animals		Activity - Experimental investigation Observe a slide of hydra	Classify organism based on asexual and sexual mode of reproduction. Describe the process of fertilization in order to explain zygote formation Differentiate between internal and external fertilization Classify animals based on their ability to give birth or lay eggs to differentiate between viviparous and oviparous animals Describe the life cycle of frogs from eggs to adult frogs in order to explain metamorphosis Describe the process of reproduction in hydra in order to explain the process of asexual reproduction	https://docs.google.com/presentation/d/1uRweN43N-2AKA7DSxkg_xMEIFUEqIfif6RiTWlglFts/edit#slide=id.p https://www.youtube.com/watch?v=hI837gHFpoA https://www.youtube.com/watch?v=w1DVWqWEhhQ https://www.youtube.com/watch?v=V4QYi3x-Yhk https://www.bbc.co.uk/bitesize/guides/z9fgr82/revision/1	No. 3 Good health and well being -
	CH-7 Reaching the age of adolescence		Activity – Research Problems caused by deficiency of iodine Activity- Flash card on how an adolescent can take care of his/her health.	To understand the changes in human body due to hormones Elaborate the functions of hormones secreted by endocrine glands in order to explain the growth in male and female body at puberty Describe mensuration , menarche and menopause to explain the reproductive phases of life in humans Elucidate the need for a balanced diet in order to explain the nutritional needs of adolescents Identify the harmful consequences of taking drugs in order to explain why drugs are not solution to confused and insecure feeling during adolescence	https://docs.google.com/presentation/d/1gRbk2_YnzTDXYdwmXj9L4KN5ebcc8iKVQA5ohE2BkzQ/edit#slide=id.p https://www.youtube.com/watch?v=ec0LkNSuND0 https://www.youtube.com/watch?v=vXrQ_FhZmos https://www.aliensbrain.com/quiz_events/0/16582	No. 3 Good health and well being
	CH- 13 Light		Activity 2 Experimental Investigation To verify the first law of reflection that is angle of incidence is equal to angle of reflection Process of refraction of light with glass slab	Identify the Characteristics of image formed by plane mirror. Identify and calculate the angles of incidence and reflection of a ray of light to illustrate the laws of reflection in real life. Distinguish between reflection from a rough and a smooth reflecting surface Describe various parts of human eye and identify their functions Describe the braille system	https://docs.google.com/presentation/d/1scf8p2SajLwCBYh1M_SrSYDQ5jTL9_Hfer2FUHTX2c4/edit#slide=id.p https://www.youtube.com/watch?v=dwx4q4c9K6k https://www.youtube.com/watch?v=Av1ZiN9P01s https://quizizz.com/admin/quiz/5d65eba1957966001b382a48/year-8-light	NO 4 Quality education -

FINAL TERM (FEB)	CH-11 Chemical effect of Electric current	CH-1 Crop production CH-6 Reproduction in animals. CH-7 Reaching the age of adolescence CH- 13 Light CH-5 Conservation of plants and animals CH-11 Chemical effect of Electric current CH-4 Combustion and flame CH-8 Force and pressure SYLLABUS COMPLETION DATE 20/01/2024	To study the chemical effect of electric current To perform electroplating of an object with copper	Apply learning of scientific concepts in day to day life of depositing a layer of any desired metal on another materials by electroplating. Distinguish between good and poor conductors of electricity List commonly known chemical effects of electricity	https://docs.google.com/presentation/d/1PetgSdKJ5BvImGRfdOaH97SFQnZRGxh_tfgK_YD62_s/edit#slide=id.p https://www.youtube.com/watch?v=ZM6DIUGzBgw https://www.youtube.com/watch?v=6iM3wF1SI3M https://quizizz.com/admin/quiz/5facd40c8e7b5e001b710f54/class-viii-chemical-effects-of-electric-current	No.12 Ensure sustainable consumption and production patterns
	CH-5 Conservation of plants and animals		Activity – Research Flora and fauna in your region Activity – Research Flora and fauna in Pachmarhi Biosphere reserve	To develop awareness for conservation of species for maintaining ecological balance Describe how droughts are caused to elaborate the consequence of deforestation List some famous biosphere and wildlife sanctuaries to describe different mechanisms through which governments protect and conserve forest and wildlife Describe the importance of Red Data Book to determine the need of tracking endangered species Explain recycling to describe ways to reduce deforestation	https://docs.google.com/presentation/d/1VQpSORm3IGPBmiNEncF4HYKhCh8PhF-YHTSvb-pp1Do/edit#slide=id.p https://www.youtube.com/watch?v=_bk2nnDI68g https://www.youtube.com/watch?v=sMRQs4lC6mo	No 15 Life on land

					https://quizizz.com/admin/quiz/5d6f5bdf348438001fb144bb/conservation-of-plants-and-animals-class-8	
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- *Science week-6 November to 17 November 2023**
- *Presentation week-18 April to 25 April 2023**
- *Research Based Project: Term 2 (Oct to Dec 23)**
- *Integrated Project: Term 1 (May June 23)**
- *The above mentioned dates are tentative.**

