

Back to SCHOOL



[TEACHERPH.COM](https://www.teacherph.com)



Most Essential Learning Competencies (MELCs)



	ingestion of harmful substances, and their prevention and treatment				
	1. how cells divide to produce new cells 2. meiosis as one of the processes producing genetic variations of the Mendelian Pattern of Inheritance	report on the importance of variation in plant and animal breeding	Compare mitosis and meiosis, and their role in the cell-division cycle	Week 2	S8LT-IVd-16
			Explain the significance of meiosis in maintaining the chromosome number	Week 2	S8LT-IVe-17
			Predict phenotypic expressions of traits following simple patterns of inheritance	Week 3	S8LT-IVf-18
	1. the concept of a species 2. the species as being further classified into a hierarchical taxonomic system	report (e.g., through a travelogue) on the activities that communities engage in to protect and conserve endangered and economically important species	Explain the concept of a species	Week 4	S8LT-IVg-19
			Classify organisms using the hierarchical taxonomic system	Week 4	S8LT-IVh-20
			Explain the advantage of high biodiversity in maintaining the stability of an ecosystem	Week 5	S8LT-IVh-21
	the one-way flow of energy and the cycling of materials in an ecosystem	make a poster comparing food choices based on the trophic levels'	Describe the transfer of energy through the trophic levels	Week 5	S8LT-IVi-22
			Analyze the roles of organisms in the cycling of materials	Week 6	S8LT-IVi-23
			Explain how materials cycle in an ecosystem	Week 6	S8LT-IVi-24
			Suggest ways to minimize human impact on the environment	Week 7	S8LT-IVj-25

Grade Level: Grade 9

Subject: Science

Quarter	Content Standard	Performance Standard	Most Essential Learning Competencies	Duration	
	<i>The learners demonstrate understanding of...</i>	<i>The learners should be able to...</i>			
1st	1. how the different structures of the	conduct an information dissemination activity on	Explain how the respiratory and circulatory systems work together to	Week 1-2	S9LT-Ia-b-26

	circulatory and respiratory systems work together to transport oxygen-rich blood and nutrients to the different parts of the body 2. the prevention, detection, and treatment of diseases affecting the circulatory and respiratory systems	effective ways of taking care of the respiratory and circulatory systems based on data gathered from the school or local health workers	transport nutrients, gases, and other molecules to and from the different parts of the body		
			Infer how one's lifestyle can affect the functioning of respiratory and circulatory systems	Week 2	S9LT-lc-27
	1. how genetic information is organized in genes on chromosomes 2. the different patterns of inheritance		Explain the different patterns of non-Mendelian inheritance	Week 3-4	S9LT-ld-29
	how changes in the environment may affect species extinction	make a multimedia presentation of a timeline of extinction of representative microorganisms, plants, and animals	Relate species extinction to the failure of populations of organisms to adapt to abrupt changes in the environment	Week 5	S9LT-le-f-30
	1. the structure and function of plant parts and organelles involved in photosynthesis 2. the structure and function of mitochondrion as the main organelle involved in respiration	design and conduct an investigation to provide evidence that plants can manufacture their own food	Differentiate basic features and importance of photosynthesis and respiration	Week 6-7	S9LT-lg-j-31
2nd	1. the development of atomic models that led to the description of the behavior of electrons within atoms 2. how atoms combine with other atoms by		Explain how the Quantum Mechanical Model of the atom describes the energies and positions of the electrons	Week 1	
			Recognize different types of compounds (ionic or covalent) based on their properties such as melting point,	Week 2	S9MT-Iib-14

	transferring or by sharing electrons 3. forces that hold metals together		hardness, polarity, and electrical and thermal conductivity;		S9MT-IIb-14
			Explain how ions are formed;	Week 3	S9MT-IIe-f-16
	the type of bonds that carbon forms that result in the diversity of carbon compounds		Explain how the structure of the carbon atom affects the type of bonds it forms;	Week 4-5	S9MT-IIg-17
			Recognize the general classes and uses of organic compounds;	Week 6	S9MT-IIh-18
	the unit, mole , that quantitatively measures the number of very small particles of matter	analyze the percentage composition of different brands of two food products and decide on the products' appropriate percentage composition	Use the mole concept to express mass of substances; and	Week 7	S9MT-IIIi-19
			Determine the percentage composition of a compound given its chemical formula and vice versa.	Week 8	S9MT-IIj-20
3rd	volcanoes found in the Philippines		Describe the different types of volcanoes and volcanic eruption	Week 1	
			Explain what happens when volcanoes erupt	Week 2	S9ES -IIIb-28
			Illustrate how energy from volcanoes may be tapped for human use	Week 3-4	S9ES -IIIc-d-29
	factors that affect climate, and the effects of changing climate and how to adapt accordingly	participate in activities that reduce risks and lessen effects of climate change	Explain how different factors affect the climate of an area	Week 5-6	S9ES-IIIe-30
			Describe certain climatic phenomena that occur on a global level	Week 6-7	S9ES-III-f-31
	the relationship between the visible constellations in the sky and Earth's position along its orbit	discuss whether or not popular beliefs and practices with regard to constellations and astrology have scientific basis	Show which constellations may be observed at different times of the year using models	Week 8-9	S9ES-IIIj-35

4th	projectile motion, impulse and momentum, and conservation of linear momentum	propose ways to enhance sports related to projectile motion	Describe the horizontal and vertical motions of a projectile	Week 1	S9FE-IVa-34
			Investigate the relationship between the angle of release and the height and range of the projectile	Week 1-2	S9FE-IVa-35
			Relate impulse and momentum to collision of objects (e.g., vehicular collision)	Week 3	S9FE-IVb-36
			Infer that the total momentum before and after collision is equal	Week 3	S9FE-IVb-37
	conservation of mechanical energy	create a device that shows conservation of mechanical energy	Perform activities to demonstrate conservation of mechanical energy	Week 4	S9FE-IVd-40
	the relationship among heat, work, and efficiency	analyze how power plants generate and transmit electrical energy	Construct a model to demonstrate that heat can do work	Week 5	S9FE-IVe-42
			Explain how heat transfer and energy transformation make heat engines work	Week 6	S9FE-IVg-45
	generation, transmission, and distribution of electrical energy from power plants (hydroelectric, geothermal, wind, nuclear) to home		Explain how electrical energy is generated, transmitted, and distributed	Week 6-7	S9FE-IVh-j-46