



Dubai International Private School

DIS, in partnership with parents and community, strives to prepare every student to be digitally literate, a lifelong learner, and a productive citizen.



**Science Department
Grades 8 Science Curriculum Annual Plan 2024-2025**

CALIFORNIA HMH SCIENCE DIMENSIONS						
TERM-I - QUARTER- I						
NGSS Code	DCIs	Module/ Unit	Topic	Learning Objectives	Week No. & Date	No. of Periods
Pre-requisite Lesson	General Basic Science	Orientation + General Basic Science	Orientation + Scientific Methods	<ul style="list-style-type: none"> - Examine theoretically the steps of scientific methods by applying them using a specific experiment. - Explore the unit conversion methods between each item 	W1: 26/8 TILL 30/8	5
MS-PS2-2		Unit 1 L.3	Diagnostic Test + Forces Affect the Motion of Objects (Introduction to Forces)	<ul style="list-style-type: none"> - Define force - Analyze how forces act on objects - Distinguish between balanced and unbalanced forces - Distinguish between speed, velocity, and acceleration - Model the effects of a force or a combination of forces acting on an object. 	W2: 2/9 TILL 6/9	5
MS-PS2-2		Unit 1 L.3	Forces Affect the Motion of Objects (Introduction to Forces)	<ul style="list-style-type: none"> - Explain the two types of forces and give examples for each. - Apply the rule to calculate the net force. 	W3: 9/9 TILL 13/9	5

				<ul style="list-style-type: none"> - Model the effects of a force or a combination of forces acting on an object - Gather evidence to explain forces and the impact forces have on objects. 		
MS-PS2-1 MS-PS2-2		Unit 1 L.4	<p>Newton's Laws for Motion Relate Energy, Forces, and Motion</p> <p>(Newton's Laws for Motion)</p>	<ul style="list-style-type: none"> - Model and describe how unbalanced forces cause changes in motion. - Describe motion and reference point. - Describe speed, velocity and acceleration. - Calculate speed and acceleration 	W4: 16/9 TILL 20/9	5
MS-PS2-1 MS-PS2-2		Unit 1 L.4	<p>Newton's Laws for Motion Relate Energy, Forces, and Motion</p> <p>(Newton's Laws for Motion)</p>	<ul style="list-style-type: none"> - Analyze Newton's first and second law of motion. - Describe the location between mass force and acceleration. - Express Newton's second law mathematically. 	W5: 23/9 TILL 27/9	5
MS-PS2-1 MS-ETS1-2		Unit 1 L.5	<p>Engineer it: Collisions between Objects</p> <p>(Collisions between Objects)</p>	<ul style="list-style-type: none"> - Define and explain Newton's First, Second, and Third Laws of Motion. - Understand the concept of collision and its significance in science. - Define and differentiate between elastic and inelastic collisions. - Apply Newton's Laws of Motion to understand and analyze collisions. - Compare and contrast the outcomes of collisions involving objects with equal masses. 	W6: 30/9 TILL 4/10	5

MS-PS2-1 MS-ETS1-2		Unit 1 L.5	Engineer it: Collisions between Objects (Collisions between Objects)	<ul style="list-style-type: none"> - Apply Newton's Laws of Motion to understand and analyze collisions. - Compare and contrast the outcomes of collisions involving objects with equal masses. 	W7: 7/10 TILL 11/10	5
PROJECT WEEK Q1					W8: 14/10 TILL 18/10	5
FALL MAP TEST SCIENCE					W9: 21/10 TILL 25/10	5
END OF QUARTER-I						

TERM-I - QUARTER- II						
NGSS Code	DCIs	Module/ Unit	Topic	Learning Objectives	Week No. & Date	No. of Periods
MS-PS2-3 MS-PS2-5 MS-PS3-2		Unit 2 L.2	Magnetic and Electromagnetic Forces Act on Certain Objects (Magnetic Forces)	<ul style="list-style-type: none"> - Determine which objects are magnetic and which are not. - Observe that magnets have two sides north and south. - Predict the motion of magnets, based on knowledge that they repel and attract. - Analyze how the distance and the type of magnet effect on the magnetic force. - Identify a magnetic field as the space in which the force of a magnet acts, 	W10: 28/10 TILL 1/11	5

				<ul style="list-style-type: none"> - Describe, and draw magnetic field lines around a single magnet. 		
MS-PS2-3 MS-PS2-5		Unit 2 L.1	<p>Electric Forces Act on Charged Objects</p> <p>(Electric Forces)</p>	<ul style="list-style-type: none"> - Investigate the electric force. - Identify and measure the variables that affect the strength and direction of the electric force. 	W11: 4/11 TILL 8/11	5
MS-PS2-3 MS-PS2-5		Unit 2 L.1	<p>Electric Forces Act on Charged Objects</p> <p>(Electric Forces)</p>	<ul style="list-style-type: none"> - Collect evidence about the variables that affect the strength and direction of electric forces. 	W12: 11/11 TILL 15/11	5
MS-PS4-1		Unit 6 L.1	<p>Waves Transfer Energy</p> <p>(Introduction to Waves)</p>	<ul style="list-style-type: none"> - Describe the nature of a wave as a disturbance that moves through a medium, transporting energy without transporting matter. - Explore the images to learn more about real-world applications of waves. - Understand the concept of wave. - Identify the characteristics of mechanical waves. 	W13: 18/11 TILL 22/11	5
MS-PS4-1		Unit 6 L.1	<p>Waves Transfer Energy</p> <p>(Introduction to Waves)</p>	<ul style="list-style-type: none"> - Compare between Longitudinal and Transverse Waves - Analyze the Types of Waves in Earthquakes - Demonstrate understanding of wave properties such as wavelength, amplitude, frequency, period, and speed and mathematically relate these properties to one another. 	W14: 25/11 TILL 29/11	5

				- Diagram the parts of the wave and explain how the parts are affected by changes in amplitude and pitch.		
MS-PS4-2		Unit 6 L.2	Waves Interact With Matter <i>(The Behavior of Mechanical Waves)</i>	<ul style="list-style-type: none"> - Investigate the mechanical Waves. - Explain how waves travel through a medium - Identify the properties of sound. 	W15: 4/12 TILL 6/12	5
MS-PS4-2		Unit 6 L.2	Waves Interact With Matter <i>(The Behavior of Mechanical Waves)</i>	<ul style="list-style-type: none"> - Investigate the mechanical Waves. - Explain how waves travel through a medium - Identify the properties of sound. 	W16: 9/12 TILL 13/12	5
DEC 16 – JAN 3 WINTER BREAK						
PROJECT WEEK Q2 + REVISION DAYS					W17: 6/1 TILL 10/1	5
W18 & W19: JAN 13 TILL JAN 21: Term 1 Final Exams for Gr.4 -12 Jan 22: Makeup Exam						
END OF QUARTER-II						

