

# MASCOUTAH COMMUNITY SCHOOL DISTRICT #19

Teacher: Becker/Hardt

Grade: 8

Subject: Science

Year: 2017-2018

Month	Content	Skills	Assessment	Standard
August				Essential Science Skills
September	Astronomy: Galaxies	Analyze & interpret what makes up a galaxy		Essential Science Skills  MSS-ESS1-3
October	How the Universe Began  Expanding Universe Lab  Pocket Solar System  Gravity Activity  Lunar Phases	Explain the 5 main theories of how the universe began  Explain & demonstrate the expanding universe theory.  Create a model of the distances between the planets.  Describing the relationships between the force of gravity and each planet.  Model the lunar phases using practical objects	Quiz Labs Activities Interactive Notebook Project Test	HS-ESS1-2  HS-ESS1-2  MS-ESS1-2 MS-ESS1-3  MS-ESS1-2  MS-ESS1-1

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	Seasons	Model & explain the revolution of the Earth and how it creates our seasons.		MS-ESS1-1
	Tides & Eclipses	Explain and interpret the different types of eclipses and how tides depend on the moon.		MS-ESS1-1 MS-ESS1-2
November	Describing matter	Describing the types of matter	Quiz Labs Activities Interactive Notebook Test	MS-PS1-1
	Describing matter	Classify and model different types of elements, compounds, molecules, and mixtures		MS-PS1-1
	Physical & Chemical Change	Demonstrate the different types of chemical & physical changes		MS-PS1-2
	Conservation of Mass	Model, interpret, & hypothesize how mass is conserved		MS-PS1-5
	Thermal Energy	Describe and explain how		MS-PS1-4

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	Organization of the periodic table	<p>thermal energy works</p> <p>Describe the characteristics of each family in the periodic table</p>		MS-PS1-1
December	<p>Alien Superhero/villain Project</p> <p>Radioactivity</p>	<p>Create a fictional character based on the characteristics of an element on the periodic table</p> <p>Describe and explain the elements on a radioactive element</p>	<p>Quiz</p> <p>Labs</p> <p>Activities</p> <p>Project</p> <p>Common Assessment</p> <p>Interactive Notebook</p> <p>Test</p>	<p>MS-PS1-1</p> <p>HS-PS1-8</p>
January	<p>Bohr's Models</p> <p>Valence Electrons &amp; Lewis Structures</p> <p>Ionic Bonding</p>	<p>Create Bohr's models based on family</p> <p>Create models based on the characteristic of each family in the periodic table</p> <p>Model to understand the relationship between elements</p>	<p>Quiz</p> <p>Labs</p> <p>Activities</p> <p>Project</p> <p>Common Assessment</p> <p>Interactive Notebook</p> <p>Test</p>	<p>MS-PS1-1</p> <p>MS-PS1-1</p> <p>HS-PS1-1</p> <p>HS-PS1-2</p> <p>MS-PS1-1</p> <p>HS-PS1-1</p> <p>HS-PS1-2</p>

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	Naming & Writing Ionic bonds	Describe and formulate ionic compounds and molecules		HS-PS1-1 HS-PS1-2
	Covalent Bonding	Model to understand the relationship between elements		MS-PS1-1 HS-PS1-1 HS-PS1-2
February	Balancing Chemical Equations	Compute and explain mass is not created or destroyed by the use of chemical equations	Quiz Labs Activities Project Common Assessment Interactive Notebook Test	HS-PS1-7
	Chemical Wanted Poster	Explain how synthetically chemicals are impacting society		MS-PS1-3
	Nature of Force	Conduct an experiment to determine how surface area affects the amount of friction		MS-PS2-5
	Gravity & Friction	Conduct an experiment and relate the types of friction correlating with a specific amount of force		MS-PS2-4 MS-PS2-5

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	Newton's Law of Motion	Describe, create, model, and analyze how Newton's Laws of Motion affect somebody in the everyday world		MS-PS2-1 MS-PS2-2 MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4
March	Archimedes' Principle	Design and construct a vessel to allow for maximum weight and maintain buoyancy		MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4
	Pressure	Demonstrate how water pressure is affected by the diameter of an object		
	Pascal's Principle	Create Cartesian Divers to model Pascal's Principle		
	Gas Laws	Hypothesize and analyze how Charles' Law is used in everyday life		
April	Bernoulli's Principle	Design a model that demonstrates Bernoulli's Principle		MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4

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	Electromagnetic Spectrum	Describe and interpret data based on the EMS		MS-PS4-1 MS-PS4-2 MS-PS4-3
May	Electromagnetic Spectrum  Thermal Energy Transfer	Design and model the effects of the EMS  Designing, constructing, and testing a device that minimizes or maximizes thermal energy transfer		MS-PS4-1 MS-PS4-2 MS-PS4-3 MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4  MS-PS3-3 MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4
June				