

Middle School Science Curriculum Guide (TCi curriculum): 2021-2022

Grade	1 st Curricular Unit*	2 nd Curricular Unit*	3 rd Curricular Unit*
6 th	Planet Earth <ul style="list-style-type: none"> • Earth's Systems • Processes that Shape Earth • Earth Processes through Geologic Time • Earth's Natural Hazards 	Space <ul style="list-style-type: none"> • The Earth-Sun-Moon System • The Solar System • The Solar System and Beyond 	Forces & Energy <ul style="list-style-type: none"> • Forces • Noncontact Forces • Kinetic and Potential Energy • Thermal Energy
7 th	Matter <ul style="list-style-type: none"> • The Composition of Matter • States of Matter • Chemical Reactions 	Cells and Genetics <ul style="list-style-type: none"> • Traits • Bodies • Cells • Genes • Changes in Genes 	Adaptations <ul style="list-style-type: none"> • The History of Life on Earth • The Evolution of Life • Human Impacts on Evolution
8 th	Waves <ul style="list-style-type: none"> • Mechanical Waves • Light Waves • Waves for Information Transfer 	Weather and Climate <ul style="list-style-type: none"> • The Atmosphere and Energy • Weather • Climate 	Ecosystems <ul style="list-style-type: none"> • Resources in Ecosystems • Energy and Matter in Ecosystems • Humans and Changing Ecosystems

*TCi Curricular Units may be taught during a different time period at the discretion of the teacher.

Middle School Science Curriculum Guide (OpenSciEd curriculum pilot): 2021-2022

Grade	1 st Curricular Unit*	2 nd Curricular Unit*	3 rd Curricular Unit*
6 th	<p>Light & Matter Investigative Storyline: Why do we sometimes see different things when looking at the same object? <u>Disciplinary Core Ideas:</u></p> <ul style="list-style-type: none"> PS4.B: Electromagnetic Radiation LS1.D: Information Processing 	<p>Thermal Energy Investigative Storyline: How can containers keep stuff from warming up or cooling down? <u>Disciplinary Core Ideas:</u></p> <ul style="list-style-type: none"> PS1.A: Structure and Properties of Matter PS3.A: Definitions of Energy PS3.B: Conservation of Energy and Energy Transfer PS4.B: Electromagnetic Radiation ETS1.A: Defining and Delimiting and Engineering Problem ETS1.B: Developing Possible Solutions 	<p>Space TCi</p> <ul style="list-style-type: none"> The Earth-Sun-Moon System The Solar System The Solar System and Beyond
7 th	<p>Chemical Reactions & Matter Investigative Storyline: How can we make something new that was not there before? <u>Disciplinary Core Ideas:</u></p> <ul style="list-style-type: none"> PS1.A: Structure and Properties of Matter PS1.B: Chemical Reactions LS1.D: Information Processing 	<p>Metabolic Reactions Investigative Storyline: How do things inside our bodies work together to make us feel the way we do? <u>Disciplinary Core Ideas:</u></p> <ul style="list-style-type: none"> LS1.A: Structure and Function LS1.B: Growth and Development of Organisms LS1.C: Organization for Matter and Energy Flow in Organisms PS3.D: Energy in Processes and Everyday Life 	<p>Cells & Genetics TCi</p> <ul style="list-style-type: none"> Traits Bodies Cells Genes Changes in Genes
8 th	<p>Contact Forces Investigative Storyline: Why do things sometimes get damaged when they hit each other? <u>Disciplinary Core Ideas:</u></p> <ul style="list-style-type: none"> PS2.A: Forces and Motion PS3.A: Definitions of Energy ETS1.B: Developing Possible Solutions ETS1.C: Optimizing the Design Solution LS1.D: Information Processing PS3.B: Conservation of Energy and Energy Transfer PS3.C: Relationship Between Energy and Forces 	<p>Sound Waves Investigative Storyline: How can a sound make something move? <u>Disciplinary Core Ideas:</u></p> <ul style="list-style-type: none"> PS4.A: Wave Properties 	<p>Weather and Climate TCi</p> <ul style="list-style-type: none"> The Atmosphere and Energy Weather Climate <p>Ecosystems TCi</p> <ul style="list-style-type: none"> Resources in Ecosystems Energy and Matter in Ecosystems Humans and Changing Ecosystems

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