Middle School Science Curriculum Guide: 2023-2024

Grade	1st Curricular Unit*	2nd Curricular Unit*	3rd Curricular Unit*	4th Curricular Unit*
6th	**Light & Matter** **[Physical Science (PS) & Life Science (LS)]** Investigative Storyline: Why do we sometimes see different things when looking at the same object? Disciplinary Core Ideas: • PS4.B: Electromagnetic Radiation • LS1.D: Information Processing	**Thermal Energy** **[Physical Science (PS) & ETS**]** Investigative Storyline: How can containers keep stuff from warming up or cooling down? Disciplinary Core Ideas: • 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 an Engineering Problem • ETS1.B: Developing Possible Solutions	**Weather, Climate and Water Cycling** **[Earth/Space Science (ESS) & Physical Science (PS)]** Investigative Storyline: Why does a lot of hail, rain, or snow fall at some times and not others? Disciplinary Core Ideas: • ESS2.C: The Roles of Water in Earth's Surface Processes • ESS2.D: Weather and Climate • PS1.A: Structure and Properties of Matter • PS3.A: Definitions of Thermal Energy • PS4.B: Electromagnetic Radiation	**Cells and Systems** **[Life Science (LS)]** Investigative Storyline: How do living things heal? Disciplinary Core Ideas: • LS1.A: Structure and Function • LS1.D: Information Processing
7th	**Chemical Reactions & Matter** **[Physical Science (PS) & Life Science (LS)]** Investigative Storyline: How can we make something new that was not there before? Disciplinary Core Ideas: • PS1.A: Structure and Properties of Matter • PS1.B: Chemical Reactions • LS1.D: Information Processing	**Chemical Reactions & Energy** **[Physical Science (PS) & ETS**]** Investigative Storyline: How can we use chemical reactions to design a solution to a problem? Disciplinary Core Ideas: • PS1.B: Chemical Reactions • ETS1.B: Developing Possible Solutions • ETS1.C: Optimizing the Design Solution	**Metabolic Reactions** **[Life Science (LS) & Physical Science (PS)]** Investigative Storyline: How do things inside our bodies work together to make us feel the way we do? Disciplinary Core Ideas: • 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	**Matter Cycling & Photosynthesis** **[Life Science (LS) & Physical Science (PS)]** Investigative Storyline: Where does food come from and where does it go next? Disciplinary Core Ideas: • LS1.C: Organization for Matter and Energy Flow in Organisms • LS2.B: Cycle of Matter and Energy Transfer in Ecosystems • PS1.A: Structure and Properties of Matter • PS1.B: Chemical Reactions • PS3.D: Energy in Chemical Processes and Everyday Life

Middle School Science Curriculum Guide: (2023-2024)

8th	**Contact Forces** **[Physical Science (PS); Life Science (LS); & ETS**]** Investigative Storyline: Why do things sometimes get damaged when they hit each other? <u>Disciplinary Core Ideas:</u> • 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	**Sound Waves** **[Physical Science (PS)]** Investigative Storyline: How can a sound make something move? <u>Disciplinary Core Ideas:</u> • PS4.A: Wave Properties	**Forces at a Distance** **[Physical Science (PS)]** Investigative Storyline: How can a magnet move another object without touching it? <u>Disciplinary Core Ideas:</u> • PS2.B: Types of Interactions • PS3.A: Definitions of Energy	**Earth in Space** **[Earth/Space Science (ESS) & Physical Science (PS)]** Investigative Storyline: How are we connected to the patterns we see in the sky and space? <u>Disciplinary Core Ideas:</u> • ESS1.A: The Universe and Its Stars • ESS1.B: Earth and the Solar System • PS2.B: Types of Interactions • PS4.B: Electromagnetic Radiation

* Curricular Units may be taught in the same order but during a slightly different time period depending on supply logistics per DE Science Coalition.

** Engineering, Technology and the Application of Science (ETS) performance expectations are imbedded in units with the ETS designation. Because they are grade level band (6-8) expectations, they may not occur in every grade in a particular band.