

Grade 6 Unit	Anchor Phenomenon, Engineering Design Project/Inquiry Project	Performance Expectations covered (PEs)	# Lessons	# Days
1. Intro to Gr 6 Science	Anchor: What is dry ice? IP: Ice and dry ice investigations	(setting norms, practicing teamwork and SEPs)	13	17
2. Thermal Energy	Anchor: Can you really use energy from the Sun to cook food? EDP: Design a better solar cooker	MS-PS3-3, MS-PS3-4, MS-PS3-5, MS-ETS1-1, 1-2, 1-3, 1-4	14	26
3. Weather	Anchor: What causes different kinds of weather? EDP: Design or improve a weather instrument IP: What causes extreme weather phenomena?	MS-ESS2-4, MS-ESS2-5, MS-ETS1-1	16	23
4. Climate	Anchor: Why do places have such different climates? EDP: Design an ecotourism resort	MS-ESS2-6	12	16
5. Climate Change	Anchor: Can we do anything about climate change? EDP: Design a program as a class to lower carbon footprint, gather data to measure its effectiveness	MS-ESS3-3, MS-ESS3-5, MS-ETS1-1, 1-2, 1-3, 1-4	13	19
6. Cells	Anchor: What makes us sick? EDP: Design a magnifying device; Make a microbe-based food (optional) IP: Cancer	MS-LS1-1,1-2, 1-3 (start) MS-LS3-2 (start) MS-ETS1-1	25	33
7. Body Systems	Anchor: How does your body work? EDP: Design an organ donation and delivery system	MS-LS1-3 (cont.), MS-LS1-8 MS-ETS1-1	18	26
8. Traits and Survival	Anchor: Why are some species endangered? IP: Endangered species research project	MS-LS1-4, MS-LS1-5, MS-LS3-2 (cont.)	13	20

Total: 180 days**Anchor** = Anchor Phenomenon **IP** = Inquiry Project **EDP** = Engineering Design Project

Grade 7 Unit	Anchor Phenomenon, Engineering Design Project/Inquiry Project	Performance Expectations covered (PEs)	# Lessons	# Days
1. Intro to Gr 7 Science	Anchor: Who can be a scientist or engineer? EDP: Paper tower challenge	MS-ETS1-1, 1-2	11	13
2. Earth Systems	Anchor: How did the Grand Canyon form? EDP: Design a building for earthquakes	MS-ESS2-1, 2-2, 2-3, 3-2, MS-ETS1-1, 1-2, 1-3, 1-4	18	30
3. Properties of Matter	Anchor: What killed Blinky the fish? EDP: Design a density toy	MS-PS1-4, 1-2 (start) MS-ETS1-1	17	24
4. Elements and Compounds	Anchor: What is it made of? EDP: Design a crystal growing kit with package and instructions	MS-PS1-1, MS-PS1-3(start), MS-ETS1-1, 1-2	14	27
5. Physical and Chemical Changes	Anchor: How do hot/cold packs work? EDP: Design a hot or cold pack accessory	MS-PS1-2 (cont.) MS-PS1-5, 1-6, MS-ETS1-1, 1-2, 1-3, 1-4	16	19
6. Respiration and Photosynthesis	Anchor: What would you need for a Mars habitat? IP: Design an experiment to measure rate of photosynthesis or respiration. EDP: Design a sustainable Mars colony	MS-LS1-6, MS-LS1-7 MS-ETS1-1	14	20
7. Ecology	Anchor: How can we protect/restore ecosystems? IP: Ecosystem study, ecosystem restoration solutions	MS-LS2-1, 2-2, 2-3, 2-4, 2-5	19	28
8. Natural Resources	Anchor: How do we stop plastics pollution? IP: Recommend a solution to the plastics problem	MS-ESS3-1, MS-PS1-3(cont.)	10	19

Total: 180 days

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Grade 8 Unit	Anchor Phenomenon, Engineering Design Project/Inquiry Project	Performance Expectations (PEs)	# Lessons	# Days
1. Intro to Gr 8 Science	Anchor: How can we observe things that happen too slowly or quickly? EDP: Make a slow-motion or time lapse video	MS-ETS1-1	10	10
2. Motion and Forces	Anchor: How do we get astronauts safely to space and back? EDP: Design a capsule for safe landing	MS-PS2-1(start), 2-2, MS-ETS1-1, 1-2, 1-3, 1-4	29	32
3. Kinetic and Potential Energy	Anchor: How do we prevent concussions? EDP: Design and analyze safety equipment	MS-PS2-1(cont.), 3-1, 3-2, 3-5 (cont. from Th.Energy) MS-ETS1-1, 1-2, 1-3, 1-4	12	21
4. Electricity and Magnetism	Anchor: What is causing the Earth's magnetic field? EDP: Design an electrical system for a toy house	MS-PS2-3, 2-5, 3-2 MS-ETS1-1	17	22
5. Waves	Anchor: What are sound and light? What are they used for? IP: What makes a better cup phone? EDP: Design an art installation involving sound and light	MS-PS4-1, 4-2, 4-3	15	23
6. Earth's Place in the Universe	Anchor: Where are we in space? How do we know? EDP: Design an interactive model	MS-ESS1-1, 1-2, 1-3, MS-PS2-4	12	16
7. Geologic Time Scale	Anchor: Why did the dinosaurs go extinct? IP: Design a presentation on Earth's timeline, cite evidence	MS-ESS1-4	13	20
8. Evolution	Anchor: What causes these unusual traits? IP: Should genetic engineering be allowed?	MS-LS3-1, 4-1, 4-2, 4-3, 4-4, 4-5, 4-6	17	22
9. Human Impact	Anchor: How do our choices affect our planet? EDP: Recommend a solution and present it to decision makers.	MS-ESS3-4	10	14

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