INSPIRE CALIFORNIA SCIENCE

GRADE- 7

CURRICULUM PACING GUIDE

Getting Started

- This pacing guide was designed to support teachers and parent educators in the implementation of the "Inspire California Science" curriculum from McGraw-Hill.

- Students will need the McGraw-Hill Consumable text and a student login for online materials such as videos, investigations and assessments. Website https://my.mheducation.com/login Username: Student first name and ID number (i.e. Stella95834) Password: Sutterpeak1

- Module assessments can be printed or assigned to take online. These are helpful to check for understanding and monitor student progress through the curriculum. Please discuss with your teacher if you would like your child to take the assessments and if you would like them assigned to take online or emailed to you as a pdf to print.

- This curriculum is available in hard copy or online. The online program includes accessibility options for students, including a read aloud feature for the textbook. This feature is indicated with a speaker icon in the top corner of the online curriculum. The online student text can be accessed by clicking on "Browse Your Course" on the Dashboard under "Where Do you want to go?" and then clicking on "Program Resources: Course Materials". You can then choose which Unit you want to access.

- The textbook will indicate when you should access online materials (videos, additional activities, etc.). You can access them by logging in, click on "Browse Your Course", click on the Module and/or Lesson and then "Launch Presentation". You can scroll through the resources to find the one you want by clicking on "next resource" at the bottom.

Inspire California Science Unit One: Weeks 1-7		
Week #	Lessons	Unit Focus
1 **Module Opener:** Classification and States of Matter **Lesson One:** Energy and States of Matter **Essential Question:** How do properties affect a substance's state of matter?	☐ Pages 2-4 ☐ Pages 5-28 & 97-98	MS-PS1-1 Develop models to describe the atomic composition of simple molecules and extended structures. MS-PS1-4 Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.
2 **Lesson Two:** Changes in Temperature **Essential Question:** What effect does changing temperature have on substances?	☐ Pages 29-54 & 99-100	
3 & 4 **Lesson Three:** Changes in Pressure **Essential Question:** What effect does changing pressure have on substances? **Lesson Four:** Molecular Structure **Essential Question:** How do atomic structures determine the properties of a substance? **STEM Module Project and Wrap-Up**	☐ Pages 55-72 & 100-101 ☐ Pages 73-96 & 102-103 ☐ Pages 104-105	
5 **Module Two Opener:** Matter: Properties and Changes (cont.)	☐ Pages 107-108	MS-PS1-2 Analyze and interpret data on the properties of substances before and after the

Lesson One: Properties of Matter **Essential Question:** How can you use properties to identify a substance?	☐ Pages 109-136 & 177-178	substances interact to determine if a chemical reaction has occurred. MS-PS1-5 Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved. MS-PS1-6 Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.
6 & 7 **Lesson Two:** Property Changes in Chemical Reactions **Essential Question:** How do atoms rearrange to form new substances in a chemical reaction?	☐ Pages 137-156 & 179-180	
Lesson Three: Energy Changes in Chemical Reactions **Essential Question:** Why do some reactions give off thermal energy and some absorb thermal energy?	☐ Pages 157-176 & 181	
STEM Module Project & Wrap-Up	☐ Pages 182-183	

Inspire California Science Unit Two: Weeks 8-18

Week #	Lessons	Unit Focus
8 & 9 **Module Opener:** Dynamic Earth	☐ Pages 2-4	MS-ESS2-1 Develop a model to describe the cycling of Earth's materials and the flow of energy that drives the process. MS-ESS2-2 Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales. MS-ESS2-3 Analyze and interpret data on distribution
Lesson One: Moving Continents **Essential Question:** What evidence supports the continental drift hypothesis?	☐ Pages 5-22 & 125	
Lesson Two: Development of a Theory **Essential Question:** What evidence supports the theory of plate tectonics?	☐ Pages 23-40 & 126	

10 **Lesson Three:** Shaping Earth's Surface **Essential Question:** How does the movement of tectonic plates from mountains and volcanoes cause earthquakes?	☐ Pages 41-66 & 126	of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.
11 - 13 **Lesson Four:** Changing Earth's Surface **Essential Question:** What geoscience processes change Earth's surface? **Lesson Five:** The Cycling of Earth's Materials **Essential Question:** How does the flow of energy and cycling of matter produce chemical and physical changes in Earth's materials?	☐ Pages 67-94 & 127 ☐ Pages 95- 124 & 127	
14 & 15 **STEM Module Project and Wrap-Up** **Module Two Opener:** Natural Hazards **Lesson One:** Earthquakes **Essential Question:** Why are some areas more prone to earthquakes than others?	☐ Pages 128-131 ☐ Pages 132-134 ☐ Pages 135-164 & 225	MS-ESS3-2 Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.
16 **Lesson Two:** Volcanoes **Essential Question:** What geologic indicators signal the eruption of a volcano?	☐ Pages 165-190 & 226	

17 & 18 **Lesson Three:** Severe Weather **Essential Question:** Why does the risk and type of severe weather vary from place to place? **STEM Module Project & Wrap-Up**	☐ Pages 191-224 & 226-227 ☐ Pages 228-231	
Inspire California Science Unit Three: Weeks 19-23		
19 **Module Opener:** Distribution of Earth's Resources **Lesson One:** Natural Resources **Essential Question:** How do people use resources from Earth's land, ocean, atmosphere, and biosphere?	☐ Pages 2-4 ☐ Pages 5-26 & 73	MS-ESS3-1 Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.
20 **Lesson Two:** Distribution of Resources **Essential Question:** Why are resources distributed unevenly on Earth?	☐ Pages 27-52 & 74	
21 **Lesson Three:** Depletion of Resources **Essential Question:** How do humans impact resource distribution and availability? **STEM Module Project**	☐ Pages 53-72 & 75 ☐ Pages 76-78	
22 **Module Wrap-Up** (cont.)	☐ Page 79	MS-PS1-3 Gather and make sense of information to describe that synthetic materials come from natural

Module Two Opener: Material Science **Lesson One:** Synthetic Technology **Essential Question:** How does the structure and function of materials influence how synthetic materials are made?	☐ Pages 80-82 ☐ Pages 83-100 & 125-126	resources and impact society.
23 **Lesson Two:** Synthetic Materials and Societal Impacts **Essential Question:** What are the impacts on society and the environment of producing and using synthetic materials? **STEM Module Project and Wrap-Up**	☐ Pages 101-124 & 126-127 ☐ Pages 128-131	
Inspire California Science Unit Four: Weeks 24-36		
24 **Module Opener:** Matter and Energy in Ecosystems **Lesson One:** Photosynthesis and Cellular Respiration **Essential Question:** How do plants and animals obtain and process energy?	☐ Pages 2-4 ☐ Pages 5-24 & 59	MS-LS1-6 Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms. MS-LS1-7 Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.
25 **Lesson Two:** Flow of Energy **Essential Question:** How does energy move in an environment?	☐ Pages 25-42 & 60	

26 **Lesson Three:** Cycling of Matter **Essential Question:** How does matter cycle through the environment?	☐ Pages 43-58 & 61	MS-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.
27 **STEM Module Project and Wrap-Up**	☐ Pages 62-65	
28 **Module Two Opener:** Dynamic Ecosystems **Lesson One:** Resources in Ecosystems **Essential Question:** How do limited resources affect populations and communities?	☐ Pages 66-68 ☐ Pages 69-84 & 123-125	MS-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem. MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems. MS-LS2-4 Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
29 **Lesson Two:** Interactions Within Ecosystems **Essential Question:** How do organisms interact in symbiotic and nonsymbiotic relationships?	☐ Pages 85-102 & 126	
30 **Lesson Three:** Changing Ecosystems **Essential Question:** How do natural and human disruptions to physical and biological components of ecosystems result in shifts in populations?	☐ Pages 103-122 & 127	
31 **STEM Module Project and Wrap-Up**	☐ Pages 128-131	
32 & 33 **Module Three Opener:** Biodiversity in Ecosystems (cont.)	☐ Pages 132-134	MS-LS2-5 Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

Lesson One: Benefits of Biodiversity **Essential Question:** Why is biodiversity important?	☐ Pages 135-166 & 185-186	MS-ETS1-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
34 & 35 **Lesson Two:** Maintaining Biodiversity **Essential Question:** What can be done to protect biodiversity?	☐ Pages 167-184 & 187	
36 **STEM Module Project and Wrap-Up**	☐ Pages 188-193	