Grade 8 Science Curriculum Map
Quarter 1: 2025-2026

7/31/25-10/03/25

**** ALL TEXTS ARE IN Indiana Inspire Science Textbook OR ON THE ONLINE Canva**

Calendar Dates:
September 1: Labor Day
October 2: PT Conferences (E-Learning)
October 6 - October 10: Fall Break

Energy and Matter
- Particles in Motion
- States of Matter
- Thermal Energy Transfers

Classification and States of Matter
- Energy and States of Matter
- Molecular Structure

Matter: Properties and Changes
- Property Changes in Chemical Reactions
- Energy Changes in Chemical Reaction

Essential Questions:
- **MS-PS1-4: PS3A:**What is temperature, and how is it measured?
- **MS-PS1-4:** How does energy determine the states of matter of a substance?
- **MS-PS-1-1:** How do atomic structures determine the properties of a substance?
- **MS-PS1-2-PS1.A: How can you use properties to identify a substance?**
- **MS-PS1-2-PS1.B: How do atoms rearrange to form new substances?**

Assessed Science Standards: MS-PS1-4: PS3A, MS-PS1-4, MS-PS-1-1, MS-PS1-2

Additional Standards:

SCIENCE FRAMEWORK 2025-2026

***** July 31 and August 1 should be used for beginning of the year activities: establishing routines & procedures, building a classroom community, etc.***

Dates	Text	Science Standards	Academic Vocabulary
August 4 - 8	**TEXT/TOPIC:** Science & Engineering Practices Lab Procedures Lab Activities	SEP.3 - Collect data to produce data to serve as the basis for evidence to answer scientific questions or test design solutions under a range of conditions. SEP.4 - Analyze and interpret data to determine similarities and differences in findings. SEP.6 - Undertake a design project, engaging in the design cycle, to construct and/or implement a solution that meets specific design criteria and constraints. Science and Engineering Practices	• Qualitative Data • Quantitative Data • Inference • Observation • Independent Variable • Control • Dependent Variable
	WRITING: **CER -** What happened to the cat? Intro to CER Writing		
August 11-15	**TEXT/TOPIC:** Volume 2, Mod 2, Lesson 1: Particles in Motion	**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. (emphasis on adding and removing thermal energy increases or decreases kinetic energy)** **PS 3.A Definitions of energy: The term "heat" refers to both thermal energy & the transfer of that thermal energy from one object to another**	• Thermal Energy • Temperature • Kinetic Energy • Volume & Density
	WRITING: CER - Lab, Wait for it, Book p. 535, What claim can you make about the motion of the water particles?		

Dates	Text	Science Standards	Academic Vocabulary
August 18 -22	**TEXT/TOPIC:** Mod 2, Lesson 2: States of Matter	**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. (emphasis on adding and removing thermal energy increases or decreases kinetic energy)**	• Phase Change • Phase • Melting • Freezing • Condensation • Vapor
	WRITING: CER - Gallium changes state because….Textbook page 556-557		
August 25 - 29	**TEXT/TOPIC:** Mod 2, Lesson 3: Thermal Energy Transfers	**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. (emphasis on adding and removing thermal energy increases or decreases kinetic energy)**	• Thermal Energy • Temperature • Kinetic Energy • Phase Change • Phase • Melting • Freezing • Condensation • Vapor
	WRITING: CER - Thermal energy flows from …to…, textbook page 580		

Dates	Text	Science Standards	Academic Vocabulary
September 1 - 5	**TEXT/TOPIC:** Energy and Matter module assessment	**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. (emphasis on adding and removing thermal energy increases or decreases kinetic energy)** 1. Review Kinetic Energy concepts 2. Give Kinetic Energy MS.PS.1.4-3.A assessment 3. Review States of Matter concepts 4. Give States of Matter MS.PS.1.4 assessment	• Phase Change • Phase • Melting • Freezing • Condensation • Vapor • Thermal Energy • Temperature • Kinetic Energy • Phase Change • Phase • Melting • Freezing • Condensation • Vapor
	WRITING: 1-2 DOK questions on the assessment		
September 8 - 12	**TEXT/TOPIC:** Mod 3, Lesson 1: Energy and States of Matter	**MS-PS-1-1 Develop models to describe the atomic composition of simple molecules and extended structures** **PS 1.A: Structure and Properties of Matter**	• Molecules • Atoms • Electrons • Neutrons • Protons • Nucleus • Electron Cloud
	WRITING: CER - Substances exist as a solid, liquid, or a gas because….. Textbook page 630		

Dates	Text	Science Standards	Academic Vocabulary
September 15 - 26	**TEXT/TOPIC:** Mod 3, Lesson 4: Molecular Structure	**MS-PS-1-1 Develop models to describe the atomic composition of simple molecules and extended structures**	• Element • Atom • Compound • Molecule
	WRITING: CER - Not all substances dissolve in water because…..textbook page 698		
September 29 - October 3	**TEXT/TOPIC:** Molecular and Atoms Assessment	**MS-PS-1-1 Develop models to describe the atomic composition of simple molecules and extended structures** 1. Review Atoms and Molecules 2. Give MS-PS-1-1 Assessment	• Molecules • Atoms • Electrons • Neutrons • Protons • Nucleus • Electron Cloud • Element • Atom • Compound • Molecule
	WRITING: 1-2 DOK questions on the assessment		