

E-COURSE CONTENTS: SUMMARY

GRADE 8 SCIENCE

TEKS Essentials with STAAR Practice

Introduction

Module 1 – Matter and Energy

- LESSON 1.1** Describing Matter
- LESSON 1.2** Physical Properties of Matter
- LESSON 1.3** Structure of Atoms
- LESSON 1.4** Chemical Properties of Matter
- LESSON 1.5** Chemical Reactions

Module 2 – Force, Motion, and Energy

- LESSON 2.1** Energy
- LESSON 2.2** Motion
- LESSON 2.3** Force and Newton’s Laws

CUMULATIVE REVIEW – MODULES 1-2

Module 3 – Earth and Space

- LESSON 3.1** The Universe
- LESSON 3.2** Earth, Sun, and Moon
- LESSON 3.3** Formation of Earth’s Surface
- LESSON 3.4** Earth’s Landforms
- LESSON 3.5** Earth’s Atmosphere and Oceans

CUMULATIVE REVIEW – MODULES 1-3

Module 4 – Organisms and Environments

- LESSON 4.1** Classification of Organisms
- LESSON 4.2** Variation and Heredity
- LESSON 4.3** Structure and Function of Cells
- LESSON 4.4** Human Body Systems
- LESSON 4.5** Relationships Between Living and Nonliving Things
- LESSON 4.6** Change and Stability in Ecosystems
- LESSON 4.7** Effects of Environmental Change

CUMULATIVE REVIEW – MODULES 1-4

Practice Test

E-COURSE CONTENTS: DETAILED VIEW

GRADE 8 SCIENCE

TEKS Essentials with STAAR Practice

Introduction

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Course Contents
Welcome Letter

Getting Familiar with STAAR Item Types

- Science – Multiple Choice and Multiselect
- Science – Drag and Drop
- Science – Hot Spot
- Science – Multipart
- Science – Short Constructed Response
- Science – Text Entry

All bulleted entries are assignable.

- Practice mode
- Test mode
- ◉ Circled entries can be changed to test mode.

Module 1 – Matter and Energy

GET STARTED 1 Matter and Energy

- Preview 1
- Diagnostic Test 1

LESSON 1.1 Describing Matter (8.5D)

- Learn 1.1
- ◉ Practice 1.1

LESSON 1.2 Physical Properties of Matter (6.6A, 6.6B)

- Learn 1.2
- ◉ Practice 1.2
- Problem Solving 1.2 – Metals, Nonmetals, and Metalloids (6.6A)

LESSON 1.3 Structure of Atoms (8.5A)

- Learn 1.3
- ◉ Practice 1.3
- Problem Solving 1.3 – Numbers of Subatomic Particles (8.5A)

LESSON 1.4 Chemical Properties of Matter (8.5B, 8.5C)

- Learn 1.4
- ◉ Practice 1.4
- Problem Solving 1.4 – Predicting Chemical Reactivity (8.5B)
- Problem Solving 1.4 – Properties of Groups of Elements (8.5C)

- LESSON 1.5** **Chemical Reactions** (7.6A, 8.5E)
- Learn 1.5
 - ▣ Practice 1.5
 - Problem Solving 1.5 – Conservation of Mass (8.5E)

- REVIEW 1** **Matter and Energy**
- Key Concept Review 1
 - Active Review 1
 - Post Test 1

Module 2 – Force, Motion, and Energy

- GET STARTED 2** **Force, Motion, and Energy**
- Preview 2
 - Diagnostic Test 2

- LESSON 2.1** **Energy** (6.8A, 6.9C)
- Learn 2.1
 - ▣ Practice 2.1
 - Problem Solving 2.1 – Kinetic and Potential Energy (6.8A)

- LESSON 2.2** **Motion** (6.8C, 6.8D, 8.6B)
- Learn 2.2
 - ▣ Practice 2.2
 - Problem Solving 2.2 – Speed, Velocity, and Acceleration (8.6B)

- LESSON 2.3** **Force and Newton’s Laws** (8.6A, 8.6C)
- Learn 2.3
 - ▣ Practice 2.3
 - Problem Solving 2.3 – Action and Reaction Forces (8.6C)
 - Problem Solving 2.3 – Predicting Acceleration (8.6C)
 - Problem Solving 2.3 – Effects of Unbalanced Forces (8.6A)

- REVIEW 2** **Force, Motion, and Energy**
- Key Concept Review 2
 - Active Review 2
 - Post Test 2

Cumulative Review – Modules 1–2

- Cumulative Review – Modules 1–2

Module 3 – Earth and Space

- GET STARTED 3** **Earth and Space**
- Preview 3
 - Diagnostic Test 3

- LESSON 3.1** **The Universe** (8.8A, 8.8B, 8.8C)
- Learn 3.1
 - ▣ Practice 3.1
 - Problem Solving 3.1 – Space Objects (8.8A)

LESSON 3.2**Earth, Sun, and Moon** (6.11B, 8.7A, 8.7B, 8.7C)

- Learn 3.2
- ▣ Practice 3.2
- Problem Solving 3.2 – Seasonal Changes (8.7A)
- Problem Solving 3.2 – Modeling the Lunar Cycle (8.7B)
- Problem Solving 3.2 – Predicting Lunar Phases (8.7B)

LESSON 3.3**Formation of Earth's Surface** (8.9A, 8.9B)

- Learn 3.3
- ▣ Practice 3.3
- Problem Solving 3.3 – Effects of Tectonic Plate Movement (8.9B)

LESSON 3.4**Earth's Landforms** (7.8C, 8.9C)

- Learn 3.4
- ▣ Practice 3.4
- Problem Solving 3.4 – Showing Erosion on a Topographic Map (8.9C)

LESSON 3.5**Earth's Atmosphere and Oceans** (8.10A, 8.10B, 8.10C)

- Learn 3.5
- ▣ Practice 3.5

REVIEW 3**Earth and Space**

- Key Concept Review 3
- Active Review 3
- Post Test 3

Cumulative Review – Modules 1–3

- Cumulative Review – Modules 1–3

Module 4 – Organisms and Environments**GET STARTED 4****Organisms and Environments**

- Preview 4
- Diagnostic Test 4

LESSON 4.1**Classification of Organisms** (6.12D, 7.11A)

- Learn 4.1
- ▣ Practice 4.1

LESSON 4.2**Variation and Heredity** (7.11C, 7.14B, 7.14C)

- Learn 4.2
- ▣ Practice 4.2

LESSON 4.3**Structure and Function of Cells** (7.12D, 7.12F)

- Learn 4.3
- ▣ Practice 4.3

LESSON 4.4**Human Body Systems** (7.12B)

- Learn 4.4
- ▣ Practice 4.4

LESSON 4.5 Relationships Between Living and Nonliving Things (7.5B, 8.11A)

- Learn 4.5
- ▣ Practice 4.5
- Problem Solving 4.5 – Dependence on Biotic and Abiotic Factors (8.11A)

LESSON 4.6 Change and Stability in Ecosystems (7.10B, 7.10C)

- Learn 4.6
- ▣ Practice 4.6

LESSON 4.7 Effects of Environmental Change (8.11B, 8.11C)

- Learn 4.7
- ▣ Practice 4.7
- Problem Solving 4.7 – Effects of Environmental Change (8.11B)
- Problem Solving 4.7 – Causes of Change in Populations (8.11B)
- Problem Solving 4.7 – Human Impacts on Oceans (8.11C)

REVIEW 4 Organisms and Environments

- Key Concept Review 4
- Active Review 4
- Post Test 4

Cumulative Review – Modules 1–4

- Cumulative Review – Modules 1–4

Practice Test

- Grade 8 Science Practice Test