



# 8TH GRADE MASTERY & STAAR<sup>®</sup> REVIEW



**100% PASSING RATE GUARANTEE!\***

*\*For full details visit [summitk12.com/guarantee-information](http://summitk12.com/guarantee-information)*

- Engaging Science TEKS Video Lessons
- Interactive Vocabulary Flashcards for all TEKS
- Including Content, Process, and Instructional Words
- STAAR<sup>®</sup> 2.0 Formative and Summative Assessments
- Includes all HB 3906 New Item Types
- Adaptive Personalized Learning Plans
- Rigorous 5-Step STAAR<sup>®</sup> Review Sequence



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# RIGOROUS 5-STEP STAAR® REVIEW SEQUENCE

**1** Teacher Led TEKS Lesson & Study Guide

**2** STAAR® Assessment 1

**3** TEKS Instructional Video

**4** Vocabulary Review Interactive Flashcards

**5** STAAR® Assessment 2



**2KI + Pb(NO<sub>3</sub>)<sub>2</sub> → PbI<sub>2</sub> + 2KNO<sub>3</sub>**

potassium iodide + lead nitrate → lead iodide precipitate

Which of the following indicates that a chemical reaction has occurred between the potassium iodide and the lead nitrate in the image above?

Select one:

- a. Light is released
- b. Change in color
- c. Change in volume
- d. Production of odor

**Evidence of Chemical Reactions and the Law of Conservation of Mass**

Common Signs of a Chemical Reaction

- Heat is released or absorbed
- Light is released
- The color of something changes
- A gas may form
- An odor is produced
- A solid forms in a liquid

**2H<sub>2</sub> + O<sub>2</sub> → 2H<sub>2</sub>O**

4 H atoms → 4 H atoms  
2 O atoms → 2 O atoms  
6 atoms → 6 atoms

chemical change chemical equation chemical reaction

Law of Conservation of Mass precipitate

**EVIDENCE OF CHEMICAL REACTIONS AND THE LAW OF THE CONSERVATION OF MASS**

What is happening? This  is releasing a gas.

**chemical reaction**  
Spanish: reacción química  
noun

During a chemical reaction, one or more substances change into one or more different substances. Bubbles, a color change, or a solid forming are some of the signs that show that a chemical reaction may have occurred.

Students observe a demonstration of magnesium burning in carbon dioxide and record the following observations.

**Observations**

1. The teacher puts grey metal chips in a pile on a tray.
2. The teacher uses a blowtorch to start burning the chips.
3. The teacher adds dry ice on top of the burning chips.
4. A bright light is emitted.
5. A white smoke rises into the air.
6. A black residue is left on the tray.

Which observations are indicators that a chemical reaction has taken place? Select THREE correct answers.

- a. A white smoke rises into the air.
- b. A black residue is left on the tray.
- c. The teacher adds dry ice on top of the burning chips.
- d. A bright light is emitted.
- e. The teacher puts grey metal chips in a pile on a tray.

| TEKS                      | Lesson Name   | STAAR Assessment 1 | TEKS Video | Vocabulary Review | STAAR Assessment 2 | Lock/Unlock |
|---------------------------|---|--------------------|------------|-------------------|--------------------|-------------|
| <b>Chemical Reactions</b> |   |                    |            |                   |                    |             |
| <b>8.5E R</b>             | <b>Evidence of Chemical Reactions and the Law of Conservation of Mass</b> | 71%                | ✓          | 85%               | 90%                | 🔒           |
| <b>7.6A S</b>             | Physical and Chemical Changes in Matter                                   | 88%                | ✓          | 83%               | 91%                | 🔒           |
| <b>6.5C</b>               | Evidence of a Chemical Change   | 91%                | ✓          | 90%               | 100%               | 🔒           |
| <b>5.5A</b>               | Properties of Matter  | 100%               | ✓          | 100%              | 100%               | 🔒           |

**READINESS**

**Evidence of Chemical Reactions and the Law of Conservation of Mass**

Common Signs of a Chemical Reaction

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chemical change chemical equation chemical reaction

Law of Conservation of Mass precipitate

**8.5A**

**SCAFFOLDS**

**Evidence of a Chemical Change**

- production of a gas
- change of temperature
- formation of a precipitate
- change of color

chemical change evidence precipitate substance

**6.5C**

**Physical Properties of Matter**

**Measurable**

- Mass: The marbles have the same mass as the weights. The sand has more mass than the sugar.
- Other measurable properties: Size, Temperature, Weight

**Testable**

- Solubility: Sugar dissolves in water.
- Conductivity: Copper is a conductor. Rubber is an insulator.
- Magnetism: Magnetism is a force that pulls iron filings toward the magnet.
- Relative Density: The density of water is greater than the density of oil, so oil floats on water.

**Observable**

Physical States of Matter: SOLID, LIQUID, GAS

The particles in solids, liquids, and gases move differently.

Other observable properties: Color, Shape, Texture

conductor magnetism matter relative density insulator mass physical states solubility

**5.5A**

**SUPPORTING**

**Physical and Chemical Changes in Matter**

A physical change is a change in the physical properties of matter such as the size, shape or state.


A chemical change is a change in the chemical properties of matter. The matter changes into a new substance.

chemical change chemical property matter physical change physical property

**7.6A**

# PERSONALIZED LEARNING PLANS

- Creates an adaptive, personalized learning plan for each student
- Starts review with Readiness Standards followed by Supporting Standards
- Students monitor their PLP progress promoting self-efficacy

| Description                                     | Practice Test | Lock/Unlock   |
|---|---------------|---|
| <b>8<sup>th</sup> Grade STAAR Practice Test</b> | 68%           |  |

## Personalized Learning Plan

| TEKS   | Description                              | Pre-test | Concept Review | Vocabulary Boosters | Post-test |
|--|--|----------|----------------|---------------------|-----------|
| 8.6C   | Newton's Laws of Motion                  | 45%      | ✓              | 80%                 | 58%       |
|  7.7B   | Forces that Affect Motion in Organisms   | 59%      | ✓              | 100%                | 78%       |
|  6.8C   | Calculating Average Speed                | 64%      | ✓              | 95%                 | 81%       |
|  6.8E | Inclined Planes                          | 71%      | ✓              | 95%                 | 84%       |
| 8.5A   | Atomic Structure                         | 47%      | ✓              | 84%                 | 87%       |
| 8.7A   | Rotation and Revolution                  | 50%      | ✓              | 86%                 | 79%       |
| 8.7B   | The Lunar Cycle                          | 62%      | ✓              | 91%                 | 94%       |
| 8.11A  | Dependence on Biotic and Abiotic Factors | ⌚ Start  | ▶              | ⌚ Start             | ⌚ Start   |
| 8.9C   | Topographic Maps and Satellite Views     | ⌚ Start  | ▶              | ⌚ Start             | ⌚ Start   |
| 8.10B  | Global Air Movement and Weather Maps     | ⌚ Start  | ▶              | ⌚ Start             | ⌚ Start   |
| 8.5B   | Elements and Reactivity                  | ⌚ Start  | ▶              | ⌚ Start             | ⌚ Start   |
| 8.5D   | Chemical Formulas                        | ⌚ Start  | ▶              | ⌚ Start             | ⌚ Start   |
| 8.8D   | The Big Bang Theory                      | ⌚ Start  | ▶              | ⌚ Start             | ⌚ Start   |