

# Middle School Science Assessment

Administered in Grade 8E(de 8lig(de 8ib(de 8

# STAAR Middle School Science Assessment

Matter



Grade 6

6.7 The student knows

# Earth and Space

## Grade 8

8.9 The student describes the characteristics of the universe and the relative scale of its components. The student is expected to:

- (A) describe the life cycle of stars and compare and classify stars using the Hertzsprung -Russell diagram **Readiness Standard**
- (B) categorize galaxies as spiral, elliptical, and irregular and locate Earth's solar system within the Milky Way galaxy **Supporting Standard**

8.10 The student knows that interactions between Earth, ocean, and weather systems impact climate. The student is expected to:

- (A) describe how energy from the Sun, hydrosphere, and atmosphere interact and influence weather and climate **Readiness Standard**
- (B) identify global patterns of atmospheric movement and how they influence local weather **Supporting Standard**
- (C) describe the interactions between ocean currents and air masses that produce tropical cyclones, including typhoons and hurricanes **Support Standard**

## Grade 7

7.9 The student understands the patterns of movement, organization, and characteristics of components of our solar system. The student is expected to:

- (B) describe how gravity governs motion within Earth's solar system **Supporting Standard**

7.10 The student understands the causes and effects of plate tectonics. The student is expected to:

- (A) describe the evidence that supports that Earth has changed over time, including fossil evidence, plate tectonics, and superposition **Supporting Standard**
- (B) describe how plate tectonics causes ocean basin formation, earthquakes, mountain building, and volcanic eruptions, including supervolcanoes and hot spots **Readiness Standard**

7.11 The student understands how human activity can impact the hydrosphere. The student is expected to:

- (A) analyze the beneficial and harmful influences of human activity on groundwater and surface water in a watershed **Supporting Standard**
- (B) describe human dependence and influence on ocean systems and explain how human activities impact these systems **Supporting Standard**

Grade 6

6.9 The student models the cyclical movements of the Sun, Earth, and Moon and describes their effects. The student is expected to:

- (A) model and illustrate how the tilted Earth revolves around the Sun, causing changes in seasons **Supporting Standard**
- (B) describe and predict how the positions of the Earth, Sun, and Moon cause daily, spring, and neap cycles of ocean tides due to gravitational forces **Supporting Standard**

6.10 The student understands the rock cycle and the structure of d h a r s r n

# Organisms and Environments

Grade 8

8.12 The student understands stability and change in populations and ecosystems. The student is expected to:

(B) describe how primary and secondary succession change an ecosystem.

- 7.13 The student knows how systems are organized and function to support the health of an organism and how traits are inherited. The student is expected to:
- (A) identify and model the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, urinary, reproductive, integumentary, nervous, immune, and endocrine systems