



## ADW GRADE 6-8 EARTH AND SPACE SCIENCE STANDARDS: PRIORITY ORDER **2017**

| <b>ESS.1</b>          | <b>Earth's Place in the Universe</b>  | <b>Priority*</b> |
|-----------------------|---|------------------|
| <b>SC.6-8.ESS.1-1</b> | Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and the moon, and seasons.            | <b>1</b>         |
| <b>SC.6-8.ESS.1-2</b> | Construct explanations for how gravity affects the motion of objects in the solar system and tides on Earth.  | <b>2</b>         |
| <b>SC.6-8.ESS.1-3</b> | Obtain and communicate information to describe how data from technologies provide information about objects in the solar system and the universe.               | <b>2</b>         |
| <b>SC.6-8.ESS.1-4</b> | Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6 billion-year-old history. | <b>3</b>         |



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| <b>ESS.2</b>          | <b>Earth's Systems</b>  | <b>Priority*</b> |
|-----------------------|---|------------------|
| <b>SC.6-8.ESS.2-1</b> | Obtain and communicate information about the relative position, density, and composition of Earth's layers and the cycling of matter and energy within and between them.  | <b>1</b>         |
| <b>SC.6-8.ESS.2-2</b> | Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of past plate motions.               | <b>1</b>         |
| <b>SC.6-8.ESS.2-3</b> | Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.  | <b>1</b>         |
| <b>SC.6-8.ESS.2-4</b> | Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.                                     | <b>2</b>         |
| <b>SC.6-8.ESS.2-5</b> | Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates. | <b>2</b>         |
| <b>SC.6-8.ESS.2-6</b> | Construct an explanation based on evidence for how natural processes can change Earth's surface at varying time and spatial scales.                                       | <b>3</b>         |



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| ESS.3          | Earth and Human Activity   | Priority* |
|----------------|--|-----------|
| SC.6-8.ESS.3-1 | Construct a scientific explanation based on evidence for how the uneven distributions of Earth's minerals, energy, and groundwater resources are the result of past and current geological processes.  | 1         |
| SC.6-8.ESS.3-2 | Construct an argument supported by evidence for how increases in consumption of natural resources impact Earth's systems.  | 2         |
| SC.6-8.ESS.3-3 | Apply scientific principles to design a method for monitoring and minimizing human impact on the environment.  | 2         |
| SC.6-8.ESS.3-4 | Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.   | 3         |
|                | <b>*Priority of Standards:</b><br><b>Priority 1:</b> standards that every student is required to achieve by the end of grade 8.<br><b>Priority 2:</b> standards that students should be able to achieve by the end of grade 8, given sufficient instructional time.<br><b>Priority 3:</b> standards that support Tier 1 and 2 standards, but that may be omitted if time in the curriculum is insufficient |           |