

## Alignment with Oregon's Science Standards

This document evaluates the state's Education Standards for Science to determine alignment with content found in Cogno board games. Grades 3-8 were analyzed.



### Highlighting Key

Indicates a significant amount of material addresses the standard

Indicates a moderate amount of material is present to develop student understanding of the standard

### 3rd Grade

#### Physical Science

- SC.03.PS.01 Describe objects according to their physical properties.
- SC.03.PS.02 Describe changes that occur in matter.
- SC.03.PS.03 Describe an object's position and how to affect its movement.
- SC.03.PS.04 Identify common types and uses of energy.

#### Life Science

- SC.03.LS.01 Recognize characteristics that are similar and different between organisms.
- SC.03.LS.02 Describe the basic needs of living things.
- SC.03.LS.03 Describe how related plants and animals have similar characteristics.
- SC.03.LS.04 Describe a habitat and the organisms that live there.
- SC.03.LS.05 Identify how some animals gather and store food, defend themselves, and find shelter.

#### Earth and Space Science

- SC.03.ES.01 Recognize physical differences in Earth materials.
- SC.03.ES.02 Identify daily and seasonal weather changes.
- SC.03.ES.03 Identify and trace the movement of objects in the sky.
- SC.03.SI.01 Make observations. Based on these observations, ask questions or form hypotheses, which can be explored through simple investigations.
- SC.03.SI.04 Use the data collected from an investigation to explain the results.

### Fifth Grade

#### Physical Science

- SC.05.PS.01 Identify substances as they exist in different states of matter.
- SC.05.PS.01.01 Distinguish among solids, liquids, and gases.
- SC.05.PS.03 Describe and compare the motion of objects.
- SC.05.PS.03.01 Recognize and describe the motion of an object in terms of one or more forces acting on it.
- SC.05.PS.04 Identify examples of magnetism and gravity exerting force on an

object.

SC.05.PS.04.01 Recognize that magnets attract and repel each other and other materials.

SC.05.PS.04.02 Recognize that things on or near Earth are pulled toward it by Earth's gravity.

SC.05.PS.05 Identify forms of various types of energy and their effects on matter.

SC.05.PS.05.01 Identify various forms of energy including heat, light, sound, and electricity.

SC.05.PS.06 Describe examples of energy transfer.

SC.05.PS.06.03 Identify examples of energy transfer in the environment.

#### Life Science

SC.05.LS.05 Describe the relationship between characteristics of specific habitats and the organisms that live there.

SC.05.LS.06 Describe how adaptations help a species survive.

#### Earth and Space Science

SC.05.ES.04 Describe the Earth's place in the solar system and the patterns of movement of objects within the solar system using pictorial models.

SC.05.ES.04.01 Describe Earth's position and movement in the solar system.

SC.05.SI.02 Design a simple scientific investigation to answer questions or test hypotheses.

### **Eighth Grade**

#### Physical Science

SC.08.PS.03 Explain interactions between force and matter and relationships among force, mass, and motion.

SC.08.PS.03.01 Recognize and describe the motion of an object based on its mass and the force exerted on it.

SC.08.PS.03.02 Predict the change in direction or speed of an object by changing the forces acting on it.

SC.08.PS.03.03 Explain inertia.

SC.08.PS.04 Recognize that every object exerts gravitational force on every other object.

SC.08.PS.04.01 Describe the effect of gravitational force on objects at the Earth's surface.

SC.08.PS.05 Compare forms and behaviors of various types of energy.

SC.08.PS.06.02 Explain the principle that energy is conserved, neither created nor destroyed.

SC.08.PS.06.03 Identify how technological advances have changed humankind's use of energy.

#### Life Science

SC.08.LS.02.03 Identify photosynthesis as the process by which plants use the energy from light to make sugars out of carbon dioxide and water, and that this food can be used immediately for fuel or materials or it may be stored for later use.

SC.08.LS.02.04 Explain how our understanding of cells and microbes has changed over time.

SC.08.LS.04.01 Identify that sunlight is the major source of energy in most ecosystems and that energy then passes from organism to organism in food webs.

SC.08.LS.05 Describe and explain the theory of natural selection as a mechanism for evolution.

SC.08.ES.02.02 Identify factors that cause or affect weather patterns.

SC.08.ES.04 Explain the relationship of the Earth's motion to the day, season, year, phases of the moon, and eclipses.

SC.08.ES.04.01 Explain the relationship between the cycle of seasons and the tilt of the Earth on its axis.

SC.08.SI.01 Based on observations and scientific concepts, ask questions or form hypotheses that can be explored through scientific investigations.

Please note that use of these standards does not imply this state's endorsement of Cogno.