## Windward Community College Imaginarium

**DOE Standards Alignment**

### Benchmarks Chart

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<th>Astronaut</th>
<th>Earth, Moon and Sun</th>
<th>Origins of Life</th>
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¹ Tales of the Mayan Skies is offered in English and Spanish. Standards that apply to the only the Spanish version of the show are marked (S).
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<th>Benchmarks Descriptions:</th>
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**Kindergarten:**

- **FA.K.3.3** Demonstrate how cultures have used dramatic play to express human experience.

- **SC.K.1.1** Use the senses to make observations about the world around them.

- **SC.K.1.2** Ask questions about the world around them.

- **SC.K.2.1** Identify different types of technologies at home, in the classroom and/or in the world around them.

- **SC.K.8.2** Identify different types of celestial objects in the day and night sky.

- **SS.K.3.1** Describe historically significant events and observances in American history.
Grade 1:
FA.1.3.3 Evaluate personal feelings about a theatrical work.
FA.1.3.5 Analyze the dramatic elements of culture that exist in stories, songs, fairytales, fables and nursery rhymes.
SC.1.2.1 Explain why people create technological devices.
SC.1.2.2 Describe a variety of changes that occur in nature.
SC.1.8.1 Describe that the sun warms air, land and water.
SS.1.6.1 Describe ways in which own and other cultures express cultural beliefs and practices through story and legends.

Grade 2:
CTE.2.1.1 Explain that people can design and make objects and systems to solve a problem or to improve the quality of life.
SC.2.2.1 Describe changes that have occurred in society as a result of new technologies.

Grade 3:
SC.3.6.1 Define energy and explain that the sun produces energy in the form of heat and light.
SC.3.8.3 Safely observe and describe the basic movements of the sun and moon.
SC.3.8.4 Describe that the constellations stay the same, though they “appear” to move across the sky every night.
SS.3.6.1 Explain that different cultures have unique beliefs, values and practices.
SS.3.6.3 Explain how cultural elements (eg. Language, art, music, stories, legends and traditions) can change over time and possible reasons for those changes.
Grade 4:
HE.3-5.1.9 Explain the consequences associated with exposure to environmental elements.

SC.4.5.3 Describe how different organisms need specific environmental conditions to survive.

SC.4.6.1 Describe how some materials may be combined to form new substances.

SC.4.7.1 Describe that the mass of the Earth exerts a gravitational force on all objects.

SC.4.8.1 Describe how slow processes sometimes shape and reshape the surface of the Earth.
SC.4.8.2 Describe how fast processes (e.g. volcanoes, earthquakes) sometimes shape and reshape the surface of the Earth.

SC.4.8.3 Describe the relationship between the sun and the Earth’s daily rotation and annual revolution.

Grade 5:
CTE.5.1.1 Examine how different innovations have developed/evolved in various cultures over time to improve life and solve problems.

HE.3-5.1.9 Explain the consequences associated with exposure to environmental elements.

SC.5.2.1 Use models and/or simulations to represent and investigate features of objects, events and process in the real world.

SC.5.3.2 Describe the interdependent relationship among producers, consumers and decomposers in an ecosystem in terms of the cycles of matter.

SC.5.4.1 Describe the structures of the human body and how they work together to sustain life.

SC.5.8.1 Describe the relationship (size and distance) of Earth to other components in the solar system.

SC.5.8.2 Describe examples of what astronomers have discovered using telescopes.
SC.5.8.3  Explain that the planets orbit the sun and that the moon orbits Earth.

SC.5.8.4  Demonstrate that day and night are caused by the rotation of Earth on its axis.

**Grade 6:**
HE.6-8.1.8  Describe the body system functions, how they interact with each other, and how they are impacted by health behaviors.

SC.6.2.1  Explain how technology has an impact on society and science.

SC.6.2.2  Explain how the needs of society have influenced the development and use of technologies.

SC.6.3.1  Describe how matter and energy are transferred within and among living systems and their physical environment.

SC.6.6.5  Explain how matter can change physical or chemical forms, but the total amount of matter remains constant.

SC.6.6.9  Describe matter using the atomic model.

SS.6.2.2  Explain the past on its own terms; not judging it solely by presents day norms and values.

SS.6.3.2  Compare the writing, artifacts and architectural remains from the Maya, Aztec, Inca and early Pacific Island societies.

SS.6.6.1  Examine the ways in which different cultures have influenced families and communities.

**Grade 7:**
HE.6-8.1.8  Describe the body system functions, how they interact with each other, and how they are impacted by health behaviors.

SC.7.1.2  Explain the importance of replicable trials.

SC.7.1.3  Explain the need to revise conclusions and explanations based on new scientific evidence.
SC.7.3.2 Explain the interaction and dependence of organisms on one another.

SC.7.4.1 Describe the cell theory.

SC.7.4.3 Describe the levels of organization in organisms.

SC.7.5.5 Explain how fossils provide evidence that life and environmental conditions have changed over time.

SC.7.5.6 Explain why variation(s) in a species gene pool contributes to its survival in a constantly changing environment.

Grade 8:

HE.6-8.1.8 Describe the body system functions, how they interact with each other, and how they are impacted by health behaviors.

SC.8.1.1 Determine the link(s) between the evidence and the conclusions of an investigation.

SC.8.2.1 Describe significant relationships among society, science, technology and how one impacts the other.

SC.8.2.2 Describe how scale and mathematical models can be used to support and explain scientific data.

SC.8.5.1 Describe how changes in the physical environment affect the survival of organisms.

SC.8.7.1 Explain that every object has mass and therefore exerts a gravitational force on other objects.

SC.8.8.3 Describe how Earth’s motion and tilt on axis effect seasons and weather patterns.

SC.8.8.8 Describe the composition of objects in the galaxy.

SC.8.8.9 Explain the predictable motions of the Earth and moon.

SC.8.8.11 Describe the major components of the Universe.
World Languages Stage 1 Grade 6-8:
WL.IS.6-8.2.1 Identify the main ideas and significant details of oral and written materials. (S)
WL.IS.6-8.4.1 Identify tangible and intangible products and practices of the target culture and compare them to other cultures.
WL.IS.6-8.4.2 Describe the meaning or purposes of various cultural activities and how they are practiced.

Earth and Space Science:
SC.ES.1.1 Describe how a testable hypothesis may need to be revised to guide a scientific investigation.
SC.ES.1.9 Explain how scientific explanations must meet a set of established criteria to be considered valid.
SC.ES.2.1 Explain how scientific advancements and emerging technology have influenced society.
SC.ES.2.2 Compare the risks and benefits of potential solutions to technological issues.
SC.ES.2.3 Explain the impact of humans on Earth system.
SC.ES.2.4 Describe technologies used to collect information about the universe.
SC.ES.8.3 Explain the possible origins and evolution of the solar system.
SC.ES.8.7 Describe climate and weather patterns associated with certain geographic locations and features.
SC.ES.8.9 Describe the physical and nuclear dynamics involved in the life cycle of a star.
SC.ES.8.10 Compare different theories concerning the formation of the Universe.

1. Tales of the Mayan Sky is offered in both English and Spanish. Standards that apply to the Spanish version of the show are marked with (S)
Physical Science:
SC.PS.1.1 Describe how a testable hypothesis may need to be revised to guide a scientific investigation.

SC.PS.1.9 Explain how scientific explanations must meet a set of established criteria to be considered valid.

SC.PS.2.1 Explain how scientific advancements and emerging technologies have influenced society.

SC.PS.2.2 Compare the risks and benefits of potential solutions to technological issues.

SC.PS.6.12 Describe nuclear reactions and how they produce energy.

SC.PS.7.3 Explain the relationship among the gravitational forces, the mass of objects and distance between objects.

Chemistry:
SC.CH.1.9 Explain how scientific explanations must meet a set of established criteria to be considered valid.

SC.CH.2.1 Explain how scientific advancements and emerging technology have influenced society.

SC.CH.2.2 Compare the risks and benefits of potential solutions to technological issues.

SC.CH.8.1 Describe how the energy release per gram of material is much larger in nuclear fission or fusion reactions than in chemical reactions and how the change in mass (E=mc²) is small but significant in nuclear reactions.

Physics:
SC.PH.1.1 Describe how a testable hypothesis may need to be revised to guide a scientific investigation.

SC.PH.1.9 Explain how scientific explanations must meet a set of established criteria to be considered valid.

SC.PH.2.1 Explain how scientific advancements and emerging technologies have influenced society.

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SC.PH.2.2 Compare the risks and benefits of potential solutions to technological issues.

**Biology:**
SC.BS.1.1 Describe how a testable hypothesis may need to be revised to guide a scientific investigation.
SC.BS.1.9 Explain how scientific explanations must meet a set of established criteria to be considered valid.
SC.BS.2.1 Explain how scientific advancements and emerging technology have influenced society.
SC.BS.2.2 Compare the risks and benefits of potential solutions to technological issues.
SC.BS.3.4 Explain dynamic equilibrium in organism populations and ecosystems; explain the effect of equilibrium shifts.
SC.BS.4.2 Explain how cells are specialized into different tissues and organs.
SC.BS.4.4 Describe how homeostatic balance occurs in cells and organisms.
SC.BS.5.1 Explain the theory of evolution and describe the evidence that supports this theory.
SC.BS.5.2 Explain the theory of natural selection.
SC.BS.5.3 Explain the structural properties of DNA and the role of DNA in heredity and protein synthesis.

**Human Physiology:**
SC.HP.1.9 Explain how scientific explanations must meet a set of established criteria to be considered valid.
SC.HP.2.1 Explain how scientific advancements and emerging technology have influenced society.
SC.HP.2.2 Compare the risks and benefits of potential solutions to technological issues.

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SC.HP.3.3 Classify the various types of human tissue (e.g. muscle, epithelial, connective, nervous) by structure and function.

SC.HP.4.9 Explain how the central nervous system functions in regulating physiological activities.

SC.HP.5.2 Determine the relationship between the skeletal and muscular systems.

Cultural Anthropology:
SS.CA.4.1 Compare the beliefs, symbols and practices of various religions.

World Languages Stage 1 Year 1:
WL.IS.Y1.2.1 Identify the main ideas and significant details of oral and written materials. (S)

WL.IS.Y1.4.1 Identify tangible and intangible products and practices of the target culture and compare them to other cultures.

WL.IS.Y1.4.2 Give examples of how significant cultural ideas are reflected in the practices and products of the culture being studied.

World Languages Stage 1 Year 2:
WL.IS.Y2.2.1 Identify the main ideas and significant details of oral and written material with limited visual clues. (S)

World Languages Stage 2 Year 3:
WL.IIS.Y3.2.1 Describe the main ideas and significant details of a variety of oral and written materials. (S)

WL.IIS.Y3.2.2 Recall information from announcements and messages intended for a wide audience. (S)

WL.IIS.Y3.4.1 Analyze the expressive products of the culture being studied through comparison to native culture.

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World Languages Stage 2 Year 4:
WL.IIIS.Y4.2.1 Identify significant ideas and details in materials by making inferences or predications supported by evidence in the text. (S)

WL.IIIS.Y4.4.1 Analyze the history, politics and art of the culture being studied by making comparisons to native culture.

World Languages Advanced:
WL.IIIIS.Y5.2.1 Assess main ideas and most supporting details of broadcast or published materials on a wide variety of subjects. (S)

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