

OKCPS IQWST OASS Standards 7th Grade Alignment by Unit, Activity, and Reading

This document charts the alignment between IQWST lessons and the NGSS performance expectations with which they most highly correlate.

It is important to note that no single activity should be thought of as meeting an NGSS performance expectation (PE). Meeting a PE requires carefully sequenced activities, readings, and lessons to support students in building understanding of a disciplinary core idea, crosscutting concepts, and the multiple scientific practices involved in “making sense” of complex ideas.

7 th Grade Physical Science OASS Standard	IQWST Units	IQWST Activities/ Readings
<p>MS-PS1-1 Develop models to describe the atomic composition of simple molecules and extended structures.</p> <p>CC: Scale, Proportion, and Quantity</p>	<p>⇔ 6th Grade Chem 1 - How Can I Smell Things from a Distance?</p> <p>⇔ 7th Grade Chem 2--How Can I Make New Stuff from Old Stuff?</p> <p>⇔ 8th Grade Chem 3 - How Does Food Provide My Body With Energy?</p>	<p>➔ 6th Grade Chem 1: Reading 6.2, Reading 8.1, Activity 8.2, Activity 8.3, Reading 8.3, Activity 9.1, Reading 9.1, Activity 10.1, Reading 10.1, Activity 16.1</p> <p>➔ 7th Grade Chem 2: Reading 3.1, Reading 7.1, Activity 7.1, Activity 8.2, Reading 8.2, Activity 8.3, Reading 8.3, Activity 9.1, Reading 9.1, Reading 10.1, Reading 12.2, Activity 12.A</p> <p>➔ 8th Grade Chem 3: Activity 3.1, Activity 3.2, Reading 3.2</p>
<p>MS-PS1-2 Analyze and interpret Data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred</p> <p>CC: Patterns</p>	<p>⇔ 6th Grade PS2 - Why Do Some Things Stop While Others Keep Going?</p> <p>⇔ 6th Grade Chem 1 - How Can I Smell Things from a Distance?</p> <p>⇔ 7th Grade Chem 2 - How Can I Make New Stuff from Old Stuff?</p> <p>⇔ 8th Grade Chem3 - How Does Food Provide My Body With Energy?</p>	<p>➔ 6th Grade PS2 Reading 8.3: How Much Chemical Energy Is There?</p> <p>➔ 6th Grade Chem 1 Activity 7.1: gases All Look the Same to Me, Reading 7.1: How Can I Tell Whether Things that Look the Same Really Are the Same?, Reading 7.2: Detectors Work Because of Properties, Activity 8.1: Investigating Elements, Reading 8.2: Why Do Properties of Materials Matter?</p> <p>➔ 7th Grade Chem 2:</p>

OKCPS IQWST OASS Standards 7th Grade Alignment by Unit, Activity, and Reading

<p>MS-PS1-2 Analyze and interpret Data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred</p> <p>CC: Patterns</p> <p>(continued)</p>		<p>Activity 1.1: Can I Make New Stuff from Old Stuff?, Activity 1.2: How Is This Stuff the Same and Different?, Activity 1.3: Demonstration and Review of Substance, Mixture, and Property, Reading 1.2: What Makes a Substance a Special Kind of Stuff?, Activity 2.1: Teacher Demonstration...Solubility, Activity 2.2: Investigating Solubility of Soap and Fat, Reading 2.1: why Can I Easily Wash Soap off My Hands with Water?, Activity 3.1: Teacher Demonstration of Melting Point, Reading 3.1: Melting Points, Activity 3.2: Does the Size of Something Affect Its Properties?, Reading 3.2: Which Properties Can I Use When?, Activity 4.1: Exploring the Relationship between Mass and Volume, Reading 4.1: How Can Two Objects that Are the Same Size Have Different Masses?, Activity 4.2: Do Fat and Soap Have the Same Density?, Activity 5.1: Are Fat and Soap the Same or Different Substances? Reading 5.1: What Evidence Would I Use to Tell if the Stones in a Ring Are the Same or Different?, Activity 6.1: Teacher Demonstration of Investigation Procedure, Reading 6.1: Could Someone Change Straw into Gold?, Reading 6.2: What Is a Chemical Reaction?, Activity 7.1: Is Burning a Chemical Reaction? Reading 7.1: Is Burning a Chemical Reaction?, Activity 8.1: How Can I Investigate Acid Rain in My Classroom?, Activity 8.2: Does Acid Rain Make New Substances? Reading 8.2:</p>
---	--	--

OKCPS IQWST OASS Standards 7th Grade Alignment by Unit, Activity, and Reading

<p>MS-PS1-2 Analyze and interpret Data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred</p> <p>CC: Patterns</p> <p>(continued)</p>		<p>Does Acid Rain Make New Substances?, Activity 8.3: Representing Chemical Reactions in Words and Symbols, Reading 8.3: What Are the Many Ways of Representing Any Chemical Reaction?, Activity 9.1: Does Electrolysis of Water Make New Substances?, Activity 11.1: How Can I Make Soap from Fat?, Reading 11.1: Do People Really make Soap from Fat?, Activity 11.2: Testing the Properties of Soap, Activity 13.1: Is My Soap a New Substance?, Reading 13.1: How Does My Soap Compare with Colonial Soap and modern Soap?, Activity 14.1: How Does My Soap Compare with Commercial Brand Soap?, Reading 14.1: The Science behind Rumpelstiltskin, Activity 14.2: How Can I Improve My Soap?</p> <p>➔ 8th Grade Chem 3: Activity 1.1: What Happens in My Body When I Run around the School?</p>
<p>MS-PS2-4 Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.</p> <p>CC: Systems and System Models</p>	<p>↔ 6th Grade PS 2 - Why Do Some Things Stop While Others Keep Going?</p> <p>↔ 8th Grade PS 3 – How Will it Move?</p>	<p>➔ 6th Grade PS 2: Reading 3.1: Gravitational and Kinetic Energy, Activity 3.2: Introducing Gravitational Energy, Energy Conversions, and Energy Conversion Diagrams</p> <p>➔ 8th Grade PS 3: Reading 7.3: Tides</p>

OKCPS IQWST OASS Standards 7th Grade Alignment by Unit, Activity, and Reading

<p>MS PS3-6: Construct, use, and present arguments to support the claim that when the kinetic energy of an object changes, energy is transferred to or from the object.</p> <p>CC: Energy and Matter</p>	<p>⇔ 6th Grade PS 2 - Why Do Some Things Stop While Others Keep Going?</p> <p>⇔ 8th Grade PS 3 – How Will it Move?</p> <p>⇔ 7th Grade ESS 2 - What Makes the Weather Change?</p>	<p>➔ 6th Grade PS 2: Reading 3.1: gravitational and Kinetic Energy, Homework 3.1: Investigating the Playground--1, Reading 4.1: Elasticity and the Body, Homework 4.1: Elastic Energy, Activity 4.2: Investigating Elastic Energy, Activity 4.3: What Determines How Much Elastic Energy an Object Can Have?, Activity 5.1: Revisiting the Bouncing Ball, Reading 5.1: Energy Transfer, Activity 5.4: Energy Transfer and Systems, Activity 6.1: Colliding Balls, Homework 6.1: Add Thermal energy in the Energy Conversion Diagram, Activity 8.4: Chemical Energy Transformations, Homework 8.4: Energy Types and their Factors, Activity 9.1: How Can I Move Energy?, Homework 9.1: Electricity in Our Homes, Homework 9.2: why Do Some Things Works Longer?, Activity 11.1: Revisiting Learning Sets 103, Reading 11.1: Examples of Energy Resources</p> <p>➔ 8th Grade PS 3: Activity 1.1: Anchoring Activity, Activity 1.2: Driving Question Board</p> <p>➔ 7th Grade ESS 2: Activity 3.3: Why Heat Rises, Reading 3.3: Why Learn about Convection</p>
--	--	---

OKCPS IQWST OASS Standards 7th Grade Alignment by Unit, Activity, and Reading

7 th Grade Life Science OASS Standard	IQWST Units	IQWST Readings and Activities
<p>MS-LS 1-4: Use arguments based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively</p> <p>CC: Cause and Effect</p>	<p>⇔ 8th Grade LS 1 - Where Have All the Creatures Gone?</p> <p>⇔ 6th Grade LS 2 - What is Going On Inside Me?</p> <p>⇔ 7th Grade LS 3 - Why Do Organisms Look the Way They Do?</p>	<p>➡ 8th Grade LS 1: Reading 7.2: Sea Lamprey and Lake Trout, Reading 8.1: Plant Structures</p> <p>➡ 6th Grade LS 2: Reading 8.1: Organisms' Balancing Acts</p> <p>➡ 7th Grade LS 3: Activity 2.2: How Do Plants Reproduce</p>
<p>MS-LS1-5: Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.</p> <p>CC: Cause and Effect</p>	<p>⇔ 8th Grade Chem 3-How Does Food Provide My Body With Energy?</p> <p>⇔ 8th Grade LS 1 - Where Have All the Creatures Gone?</p> <p>⇔ 7th Grade LS 3 - Why Do Organisms Look the Way They Do?</p>	<p>➡ 8th Grade Chem 3: Activity 6.1: What Do Plants Need to Grow?, Reading 6.1: What Do Plants Need to Grow?</p> <p>➡ 8th Grade LS 1: Reading 4.2: Hydroponics</p> <p>➡ 7th Grade LS 3: Activity 8.1: Variations, Variations, and More Variations, Activity 8.2: How Can We Show Ranges of Variation?</p>
<p>MS-LS1-8: Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.</p> <p>CC: Cause and Effect</p>	<p>⇔ 7th Grade PS 1 - Can I Believe My Eyes?</p> <p>⇔ 6th Grade Chem 1 - How Can I Smell Things from a Distance?</p>	<p>➡ 7th Grade PS 1: Activity 1.1: Anchoring Activity--Strange Images, Reading 1.1: Look at This!, Activity 1.2: Driving Question Board, Activity 2.1: Probing Ideas: Seeing Objects around the Room, Activity 2.2: Determining the Conditions for Sight--The Light Box, Reading 2.2: Picture This 1, Activity 4.1: How the Eye Works--Overview,</p>

OKCPS IQWST OASS Standards 7th Grade Alignment by Unit, Activity, and Reading

		<p>Reading 4.1: Eyes in the Animal Kingdom, Activity 9.3: How Color Sensors Work, Reading 9.3: Making Color Photographs</p> <p>➔ 6th Grade Chem 1: Activity 1.1: Can You Smell What I Smell?, Reading 1.1: Can You Smell What I Smell?, Reading 1.2: How Can Models Help Me Understand Odors?, Reading 6.1: In What Ways Do People Use Detectors?</p>
<p>MS-LS3-1- Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or neutral effects to the structure and function of the organism.</p> <p>CC: Structure and Function</p>	<p>⇔ 7th Grade LS 3 - Why Do Organisms Look the Way They Do?</p>	<p>➔ 7th Grade LS 3: Reading 3.3: Heredity Patterns--A Key to Diagnosis, Homework 3.3: Heredity Patterns--A Key to Diagnosis, Activity 6.1:Constructing a Model of Inheritance, Activity 6.2: Testing the Model, Reading 6.2: Models: Using Models to Decide between Possible Explanations, Activity 7.1: Extending and Applying the Model of Inheritance, Activity 7.2: Introducing Albinism, Reading 7.2: Which Instructions Get Followed?, Activity 8.4: How Do Genes work for Continuous Traits?, Reading 8.4: Height--Unraveling a Genetic Puzzle</p>
<p>MS-LS3-2 Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation.</p> <p>CC: Cause and Effect</p>	<p>⇔ 7th Grade LS 3 - Why Do Organisms Look the Way They Do</p>	<p>➔ 7th Grade LS 3: Activity 1.1: What Traits Do Humans Have?, Activity 1.2: Traits of You and Me, Activity 1.3: Baby, Where Did You Get Those Eyes?, Reading 1.3: Baby, Where Did You Get Those Eyes?, Activity 2.1: Are Traits Connected?, Reading 2.1: Do the Traits I Inherited Affect My Sense of Taste or Smell?, Reading 2.2: What Is the Buzz About?,</p>

OKCPS IQWST OASS Standards 7th Grade Alignment by Unit, Activity, and Reading

		<p>Activity 2.3: Is There a Pattern to How Traits Get Passed On?, Activity 3.1: What Are the Patterns in How Traits Are Inherited?, Activity 3.2: Are There Patterns in Plant Traits?, Activity 3.3: What Seed Patterns Are There in a Future Generation?, Activity 4.1: How Do Traits Get Passed On?, Activity 4.2: What about the Next Generation of Seeds?, Activity 4.3: Synthesizing the Data, Reading 4.3: Why Are Patterns Important?, Activity 5.2: How Can Parents Produce Offspring with Different Traits?, Reading 5.2: Discovering the Source, Activity 8.3: Variation Everywhere, So What</p>
<p>MS-LS4-3: Analyze displays of pictorial data to compare patterns of similarities in the embryological development across multiple species to identify relationships not evident in the fully formed anatomy</p> <p>CC: Patterns</p>	<p>⇔ 7th Grade LS 3 - Why Do Organisms Look the Way They Do</p>	<p>➔ 6th Grade LS 3: Evolution Supplement</p>
<p>MS-LS4-4: Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.</p>	<p>⇔ 7th Grade LS 3 - Why Do Organisms Look the Way They Do?</p>	<p>➔ 7th Grade LS 3: Activity 9.1: The Case of the Peppered Moth, Reading 9.2: How Does Variation Matter?, Activity 10.1: Background to the Mystery, Activity 10.2: Introducing Data Comparisons and Individual Finch Data, Activity 10.3: Investigating the Finches, Reading 10.3: Where Did the Data Come From?, Activity 10.4: Midpoint Sharing, Activity 10.5: Sharing Ideas, Homework 10.5:</p>

OKCPS IQWST OASS Standards 7th Grade Alignment by Unit, Activity, and Reading

<p>CC: Cause and Effect</p>		<p>What Happens Next?, Activity 11.1: Constructing a General Model of How Populations Can Change, Activity 11.2: Does the Consensus Model work?, Activity 11.3: Putting It All Together--Why Do Organisms Look the Way They Do?</p>
<p>MS-LS4-5: Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.*</p> <p>CC: Cause and Effect</p>	<p>⇔ 7th Grade LS 3 - Why Do Organisms Look the Way They Do?</p>	<p>➡ 7th Grade LS 3: Reading 11.1: Does Selection Always Occur Naturally</p>
<p>MS-LS4-6: Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.</p> <p>CC: Cause and Effect</p>	<p>⇔ 7th Grade LS 3 - Why Do Organisms Look the Way They Do?</p>	<p>➡ 7th Grade LS 3: Activity 9.2: How Does Variation Matter?, Activity 9.3: Explaining the Change in the Peppered Moth Population</p>

OKCPS IQWST OASS Standards 7th Grade Alignment by Unit, Activity, and Reading

7 th Grade Earth and Space OASS Standard	IQWST Unit/s	IQWST Readings and Activities
<p>MS-ESS1-1 Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.</p> <p>CC: Patterns</p>	<p>⇔ 7th Grade ESS2- - What Makes the Weather Change?</p> <p>⇔ 7th Grade PS 1 - Can I Believe My Eyes?</p>	<p>➡ 7th Grade ESS 2: Activity 7.3: Does the Earth's Shape Affect Temperature?, Activity 7.4: Does the Angle That Light Hits the Earth Affect Intensity?, Activity 7.5: Can We Explain the Pattern in the Data?, Reading 8.2: Day and Night, Activity 8.3: Does a Tilted Earth Explain the Seasons?, Reading 8.3: Seasons of the Year, Activity 8.4: Why Is the Temperature Not the Same Everywhere?</p> <p>➡ 7th Grade PS 1: Reading 6.4: Moon Phases, 7.1 Warm Up Activity, Reading 10.2: Lunar and Solar Eclipses, Reading 11.2: Solar Eclipse</p>
<p>MS-ESS1-2: Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.</p> <p>CC: Systems and System Models</p>	<p>⇔ 8th Grade PS 3 – How Will it Move?</p>	<p>➡ 8th Grade PS 3- Reading 7.2: Planetary Motion</p>
<p>MS-ESS1-3: Analyze and interpret data to determine scale properties of objects in the solar system.*</p> <p>CC: Scale, Proportion, and Quantity</p>	<p>⇔ 7th Grade PS 1 - Can I Believe My Eyes?</p> <p>⇔ 8th Grade PS 3 – How Will it Move?</p>	<p>➡ 7th Grade PS 1: Reading 5.3: Stars and the Solar System</p> <p>➡ 8th Grade PS 3: Reading 6.3: The Universe</p>

OKCPS IQWST OASS Standards 7th Grade Alignment by Unit, Activity, and Reading

<p>MS-ESS2-5: Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.</p> <p>CC: Cause and Effect</p>	<p>⇔ 6th Grade ESS 1 - How Does Water Shape Our World?</p> <p>⇔ 7th Grade ESS 2 - What Makes the Weather Change?</p>	<p>➔ 6th Grade ESS1: Activity 3.2: Is There Water in the Air?, Reading 3.2: How Do I Know How Humid It Is?</p> <p>➔ 7th Grade ESS 2: Activity 1.2: Setting Up the Driving Question Board (DQB), Reading 1.2: What Can Clouds Tell Us about Weather?, Activity 2.1: It Is Heating Up, Activity 4.1: Constructing a Barometer, Activity 4.2: Does How Large the Difference in Temperature between Air Masses Affect How the Air Moves?, Activity 5.1: What Can Weather Maps Tell Us?, Reading 5.1: How Do Scientists Get the Data?, Activity 5.2: Creating an Isobar Map, Activity 6.1: Can We Identify Patterns in Data?, Activity 6.2: Can the Storm Model Explain the Data?, Reading 6.2: Is It Going to Snow or Rain or...</p>
<p>MS-ESS2-6: Develop and use a model to describe how unequal heating and rotation of the Earth causes patterns of atmospheric and oceanic circulation that determine regional climates.</p> <p>CC: Systems and System Models</p>	<p>⇔ 6th Grade ESS 1 - How Does Water Shape Our World?</p> <p>⇔ 7th Grade ESS 2 - What Makes the Weather Change?</p>	<p>➔ 6th Grade ESS 1: Activity 4.4: How Does Water Move In and Out of the atmosphere?</p> <p>➔ 7th Grade ESS 2: Activity 1.1: Identifying Weather Conditions around the World, Activity 7.1: How Can We Compare Cities on Earth?, Activity 7.2: Do the Number of Daylight Hours Vary in Different Locations on Earth?, Homework 7.5: Does the Data Match the Explanation?, Activity 8.1: Does the City Data Match the Visualizations?, Activity 8.2: How Does the Earth Move</p>