

QScience Lesson Plans: January 8 - March 16, 2024

Earth, Sun, & Moon

career pathway	Astronomer: An astronomer is a scientist in the field of astronomy who focuses their studies on a specific question or field outside the scope of Earth. Salary: \$97 - &140k/year
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3.1 Week of January 8, 2024

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
standard	Navigation, Scientific Exploration, & Tools E.5.8A.4 Construct scientific arguments to support claims about the importance of astronomy in navigation and exploration, including the use of telescopes, compasses, and star charts.				
objective	TSW demonstrate an understanding of the Earth, Sun, and Moon.				
teacher input	Vocabulary: axis, constellation, data, Earth, eclipse, lunar cycle, lunar eclipse, model, moon, revolution, rotation, seasons, solar eclipse, solstice, sun, tilt				
anticipatory set	Daily Data Talks: What do you notice? What do you wonder? What is going on in this visualization?				
modeling, guided, independent	Modeled: Vocab 4 square Stemslopedia Engage: Light & Shadows	Guided: Vocab continued Stemsscopes Content Connections Video & Worksheet Stemslopedia	Guided: Earth, Sun, & Moon Model (brad activity) Generation Genius: 'Earth's Orbit & Rotation' Stemslopedia	Guided: Wednesday's lessons continued Earth, Sun, & Moon Doodle Notes	Independent: Blooket Review (open notes)
check for understanding	<u>Quiz, Quiz, Trade</u>	<u>MPT</u>	<u>Quiz, Quiz, Trade</u>	<u>Quiz, Quiz, Trade</u>	<u>Quiz, Quiz, Trade</u>
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3.2 Week of January 15, 2024

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
standard	Moon Phases E.5.8B Students will demonstrate an understanding of the principles that govern moon phases, day and night, appearance of objects in the sky, and seasonal changes. E.5.8B.1 Analyze and interpret data from observations and research (e.g., from NASA, NOAA, or the USGS) to explain patterns in the location, movement, and appearance of the moon throughout a month and over the course of a year.				
objective	TSW demonstrate an understanding of moon phases.				
teacher input	Vocabulary: axis, constellation, data, Earth, eclipse, lunar cycle, lunar eclipse, model, moon, revolution, rotation, seasons, solar eclipse, solstice, sun, tilt				
anticipatory set	Daily Data Talks: What do you notice? What do you wonder? What is going on in this visualization?				
modeling, guided, independent	MLK HOLIDAY	Modeled: Vocab Review Explore 1: Making a Model- Moon Phases Stemslopedia Generation Genius 'The Moon and Its Phases' Blooket Review (fill in the blank)	Guided: Stemslopedia Lunar Phases Doodle Notes	Guided: Stemslopedia solo cup moon phase activity	Guided: Find Someone Who Vocab Review Explore 1: Making a Model- Moon Phases complete and review all Earth, Sun, & Moon phases activities moon phases calendar puzzle
check for understanding	<u>Quiz, Quiz, Trade</u>	<u>MPT</u>	<u>Quiz, Quiz, Trade</u>	Blooket Review	Independent: Quiz
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Eclipses

3.3 Week of January 22, 2024

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
standard	Eclipses E.5.8B Students will demonstrate an understanding of the principles that govern moon phases, day and night, appearance of objects in the sky, and seasonal changes. E.5.8B.2 Develop and use a model of the Earth-Sun-Moon system to analyze the cyclic patterns of lunar phases, solar and lunar eclipses, and seasons.				
objective	TSW demonstrate an understanding of eclipses.				
teacher input	Vocabulary: axis, constellation, data, Earth, eclipse, lunar cycle, lunar eclipse, model, moon, revolution, rotation, seasons, solar eclipse, solstice, sun, tilt				
anticipatory set	Daily Data Talks: What do you notice? What do you wonder? What is going on in this visualization?				
modeling, guided, independent	Modeled Vocab 4 square Stemslopedia Generation Genius: "Solar & Lunar Eclipses" Blooket Review	Guided: Content Connections Video 1 and worksheet Sun-Earth Day activity (outdoors)	Guided: Explore 3: Research-Geocentric Model of the Solar System	Guided: Explore 3: continued Stemslopedia	Guided: review complete activities from the week MAAP practice test
check for understanding	<u>Quiz, Quiz, Trade</u>	<u>MPT</u>	<u>Quiz, Quiz, Trade</u>	<u>Blooket</u>	Independent: <u>Quiz</u>
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3.4 Week of January 29, 2024

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
standard	Seasons E.5.8B Students will demonstrate an understanding of the principles that govern moon phases, day and night, appearance of objects in the sky, and seasonal changes. E.5.8B.3 Develop and use models to explain the factors (e.g., tilt, revolution, and angle of sunlight) that result in Earth's seasonal changes.				
objective	TSW demonstrate an understanding of seasons.				
teacher input	Vocabulary: axis, constellation, data, Earth, eclipse, lunar cycle, lunar eclipse, model, moon, revolution, rotation, seasons, solar eclipse, solstice, sun, tilt				
anticipatory set	Daily Data Talks: What do you notice? What do you wonder? What is going on in this visualization?				
modeling, guided, independent	Modeled Generation Genius: 'Causes of Seasons' Blooket Review	Guided: Earth, Sun, & Moon Task Cards Stemscoopedia	Guided: Seasons Doodle Notes Stemscoopedia	Guided: Seasons Review Board Game Stemscoopedia	Guided MAAP practice incomplete work seasons review
check for understanding	<u>Quiz, Quiz, Trade</u>	<u>MPT</u>	<u>Quiz, Quiz, Trade</u>	<u>Find Someone Who</u>	Independent: Edulastic Quiz
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DCA Week

3.5 Week of February 5, 2024

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
standard	DCA WEEK! Review E.5.5.8A-E.5.8B.1- E.5.8B.3				
objective	TSW demonstrate an understanding of				
teacher input	Vocabulary: axis, constellation, data, Earth, eclipse, lunar cycle, lunar eclipse, model, moon, revolution, rotation, seasons, solar eclipse, solstice, sun, tilt				
anticipatory set	Daily Data Talks: What do you notice? What do you wonder? What is going on in this visualization?				
modeling, guided, independent	Modeled Earth, Sun, & Moon notes Blooket Review	Guided: Earth, Sun, & Moon notes Blooket Review	Guided Earth, Sun, & Moon notes Blooket Review	Independent: DCA	Guided: Blooket Review of all skills from this year
check for understanding	QQT	MPT	Blooket Review	Find Someone Who	Independent: Edulastic Quiz
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Astronomy

3.6 Week of February 12, 2024

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
standard	Historical Understanding of the Solar System + Planets E.5.8B.4 Obtain information and analyze how our understanding of the solar system has evolved over time (e.g., Earth-centered model of Aristotle and Ptolemy compared to the Sun-centered model of Copernicus and Galileo). E.5.8A.1 Develop and use scaled models of Earth's solar system to demonstrate the size, composition (i.e., rock or gas), location, and order of the planets as they orbit the Sun.				
objective	TSW demonstrate an understanding of the historical understanding of the solar system and planets.				
teacher input	Vocabulary: axis, constellation, data, Earth, eclipse, lunar cycle, lunar eclipse, model, moon, revolution, rotation, seasons, solar eclipse, solstice, sun, tilt				
anticipatory set	Daily Data Talks: What do you notice? What do you wonder? What is going on in this visualization?				
modeling, guided, independent	Modeled Vocab 4 square Stemscoopedia	Guided: Engage: Snap Shot of the Solar System Blooket Review	Guided: Explore 1: Making a Model- Earth and Space: Planets, Earth, Moon, and Sun	Guided: Generation Genius: 'The Solar System' Blooket Review	Independent: Stemscoopedia Edulastic MPT Blooket

check for understanding	<u>Blooket Review</u>	<u>MPT</u>	<u>Blooket Review</u>	<u>Find Someone Who</u>	Quiz
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The Sun's Apparent Brightness

3.7 Week of February 19, 2024

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
standard	The Sun's Apparent Brightness E.5.8A Students will demonstrate an understanding of the locations of objects in the universe. E.5.8A.2 Use evidence to argue why the sun appears brighter than other stars.				
objective	TSW demonstrate an understanding of the sun's apparent brightness.				
teacher input	Vocabulary: axis, constellation, data, Earth, eclipse, lunar cycle, lunar eclipse, model, moon, revolution, rotation, seasons, solar eclipse, solstice, sun, tilt				
anticipatory set	Daily Data Talks: What do you notice? What do you wonder? What is going on in this visualization?				
modeling, guided, independent	Modeled Vocab Intro Solar System Doodle Notes Stemslopedia	Guided: Engage: Quiz, Quiz, Trade: Vocab Stemslopedia	Guided: Doodle Notes: COMPLETED Generation Genius: 'Sun and Other Stars' Blooket Review	Guided: Explore 2: Activity- Up in the Wonderful Sky	Guided: Explore 2: continued

check for understanding	<u>Blooket Review</u>	<u>MPT</u>	<u>Blooket Review</u>	<u>Find Someone Who</u>	<u>Independent:</u> Quiz
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3.8 Week of February 26, 2024

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
standard	Constellations E.5.8A Students will demonstrate an understanding of the locations of objects in the universe. E.5.8A.3 Describe how constellations appear to move from Earth's perspective throughout the seasons (e.g., Ursa Major, Ursa Minor, and Orion).				
objective	TSW demonstrate an understanding of constellations.				
teacher input	Vocabulary: axis, constellation, data, Earth, eclipse, lunar cycle, lunar eclipse, model, moon, revolution, rotation, seasons, solar eclipse, solstice, sun, tilt				
anticipatory set	Daily Data Talks: What do you notice? What do you wonder? What is going on in this visualization?				
modeling, guided, independent	<u>Modeled</u> Vocabulary Review Stemscoopedia Blooket Review	<u>Guided:</u> Universe in a Box Blooket Review	<u>Guided:</u> DIY: Planisphere DOODLE NOTES: Constellations	<u>Guided:</u> Explore 3: Stemscoopedia	<u>Independent:</u> Edulastic Quiz

check for understanding	<u>Blooket Review</u>	<u>MPT</u>	<u>Blooket Review</u>	<u>Presentations</u>	Quiz
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DCA Review

3.9 Week of March 5, 2024

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
standard	<p>DCA review</p> <p>Review E.5.8B.4 E.5.8A.1-E.5.8A.3</p>				
objective	TSW demonstrate an understanding of all 9 weeks objectives.				
teacher input	Vocabulary: review all 9 weeks vocab				
anticipatory set	Daily Data Talks: What do you notice? What do you wonder? What is going on in this visualization?				

modeling, guided, independent	Modeled test prep: notes Blooket review/study guide	Guided: test prep: notes Blooket review/study guide	Guided: test prep notes online review	Guided: DCA	Independent: Mixtures & Solution Slime activity OR DCA notecards
check for understanding	<u>Blooket Review</u>	<u>Find Someone Who</u>	<u>DCA</u>	<u>Blooket Review</u>	Quiz
closure	Exit Ticket	Exit Ticket	Exit Ticket	Exit Ticket	Exit Ticket