

Quarter 1

Scope	Standards	Activities	Suggested Pacing	Notes
The Big Bang Theory	8.ESS1.1	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required. Predicted number of days are based on what is blue only. * Picture vocabulary can be posted around the room prior to the start of lesson. But all vocabulary is addressed in the linking literacy.
		Explore	Explore 1: Activity - A Stretch of the Imagination Explore 2: Activity - Cosmic Confetti Explore 3: Activity - Human Redshift Model Activity - Cosmic Microwave Background Radiation	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	6 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Atoms	8.PS1.1	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - The Atom	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	

		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	6 days	
Scope	Standards	Activities	Suggested Pacing	Notes
The Stars	8.PS1.2 8.ETS2.1	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required *Explore 2: Rather than creating a physical poster, have students create a digital poster to save on time
		Explore	Explore 1: Scientific Investigation - Star Fingerprints Explore 2: Research - Telescopes, Satellites, and Probes	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	4 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Modeling Earth's Interior	8.ESS2.2 8.ESS2.3 8.ESS2.1	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Mapping Seismic Waves Explore 2: Research - Inside Earth Explore 3: Activity - Cycling of Matter in Earth	

			Explore 4: Engineering Solution - Modeling Earth's Movements	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	7 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Plate Tectonics and Earth's Features	8.ESS2.4 8.ESS3.1	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Scientific Investigation - Super Evidence Explore 2: Activity - Modeling Plate Movement Explore 3: Activity - How Tectonic Plates Move Explore 4: Activity - Hot Spot Volcanoes	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	2 days *Given for extra time for a previous lesson and	

			intervention in response to assessments/ enrichment.	
		Total	8 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Gravitational Forces	8.PS2.3	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Mass and Gravitational Force Explore 2: Scientific Investigation - Gravitational Force Between Objects Explore 3: Activity - Gravitational Forces in Space	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	6 Days	
Scope	Standards	Activities	Suggested Pacing	Notes
Motion, Force, Direction, and Position	8.PS2.4 8.PS2.5	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Balanced and Unbalanced Forces Explore 2: Activity - Graphing Motion and Position Explore 3: Scientific Investigation - Relationships among Force, Mass, and Acceleration Explore 4: PBL - Balloon Car	

		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	8 Days	

Quarter 2

Scope	Standards	Activities	Suggested Pacing	Notes
Newton's Third Law of Motion	8.PS2.6	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - "Action-Reaction" Contact Forces Explore 2: Activity - Action-at-a-Distance Forces Explore 3: Engineering Solution - Rube Goldberg Machine	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	6 days	

Scope	Standards	Activities	Suggested Pacing	Notes
Force Fields	8.PS2.1	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Electrical Force Explore 2: Activity - Mapping Force Fields Explore 3: Activity - Evaluating Experimental Design	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	7 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Electromagnetic Forces	8.PS2.2 8.ETS1.1	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Electromagnetic Investigation Explore 2: Activity - Generating a Current Explore 3: Activity - Building an Electric Motor Explore 4: Engineering Solution - Testing and Modifying an Electromagnet Design	
		Explain	Picture vocabulary Linking Literacy (45 minutes) Picture vocabulary activity	
		Elaborate	Teacher Choice (45 minutes)	

		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	7 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Introduction to Properties of Waves	8.PS4.1	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Observing Waves, Their Properties, and Relationships Explore 2: Activity - Waves, Energy, and Sound	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	7 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Modeling Waves through Various Mediums	8.PS4.2	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Simulating Light	

			Explore 2: Activity - The Sounds of Science Explore 3: Research - Mechanical Waves vs. Electromagnetic Waves	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	5 days	
3 Flex Days at end of Quarter 2				
Quarter 3				
Scope	Standards	Activities	Suggested Pacing	Notes
Digital Transmission and Storage	8.PS4.3	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Modeling Digital Signals Explore 2: Research - Why Are Digitized Signals More Reliable?	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day	

			*Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	5 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Extinction	8.ESS2.1	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required *Explore 1: Lower number of scenarios to fit into 30 minutes *Teachers have a choice between Explore 2 or 3. Both do not need to be completed.
		Explore	Explore 1: Activity - Reasons for Extinction Explore 2: Research - Catastrophe and Extinction OR Explore 3: Research - Bringing Them Back From the Brink Explore 4: Engineering Solution - Extinction	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	7 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Fossil Record	8.LS4.1	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Millions of Years Ago Explore 2: Activity - Forming Fossils Explore 3: Activity - The Dating Game	
		Explain	Picture vocabulary Linking Literacy (45 minutes)	

			Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	7 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Evolutionary History and Relationships	8.LS4.2	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Rats and Elephants: Similar or Different? Explore 2: Activity - Skeleton Sort! Explore 3: Activity - Common Ancestry Explore 4: Activity - Cladogram of Ancestry	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	5 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Survival and Adaptation	8.LS4.3	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required

		Explore	Explore 1: Scientific Investigation - Battle of the Beaks: Feeding Frenzy Explore 2: Activity - A Squirrely Saga	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	6 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Natural Selection and Populations	8.LS.4.4	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Survival of the Fittest Explore 2: Activity - Survival Explore 3: Scientific Investigation - Daphne Island	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/ Response to Data	1 day *Given for extra time for a previous lesson and	

			intervention in response to assessments/ enrichment.	
		Total	6 days	
Scope	Standards	Activities	Suggested Pacing	Notes
Artificial Selection	8.LS.4.5	Engage	Accessing Prior Knowledge Scope Phenomenon	*Activities in blue are required
		Explore	Explore 1: Activity - Which Is Which? Explore 2: Activity - Artificially Selecting Dogs Explore 3: Engineering Solution - Populating a New Planet	
		Explain	Picture vocabulary Linking Literacy Picture vocabulary activity	
		Elaborate	Teacher Choice	
		Evaluate	Claim-Evidence Reasoning Open-ended Response Multiple choice Assessment	
		Flex/Repone to Data	1 day *Given for extra time for a previous lesson and intervention in response to assessments/ enrichment.	
		Total	7 days	
Quarter 4				
Flex Days	n/a		Wrap up Scope prior to Spring Break (3 to 4 days)	
Response to data and TCAP PREP	n/a		Use benchmark and classroom assessment data to: Identify areas of need to review Determine small groups and students to work with	

After TCAP			Choose missed explore and elaborate activities prior to TCAP. Consider some of the PBLs or engineering design challenges	
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