

UNITS OF STUDY	STANDARDS, BENCHMARKS, GLCEs OR HSCES	BIG IDEAS / KEY CONCEPTS	ASSESSMENTS		LEARNING STRATEGIES	CONTENT ACTIVITIES	VOCABULARY	INSTRUCTIONAL RESOURCES
			OF LEARNING	FOR LEARNING				
Balance and Motion	S.IP.02.11 Make purposeful observation of the natural world using the appropriate senses.	Inquiry Purposeful observation Appropriate senses	Item #4 on Balance and Motion Assessment	Student Sheet No. 2	Metacognition, Sharing Observation	Balance Discussion Investigation Part 1, Investigation 2, Discuss Top Progress, ask students to "Observe the Path of a Spinning Top" through its pattern Investigation 2, part 1.	*Please use word bank vocabulary (Investigations 1	Foss Science Stories, www.fossweb.com , Science Kit
Balance and Motion	S.IP.02.12 Generate questions based on observations.	Inquiry Use observation to form your question	Items #3 and #7 on Balance and Motion Assessment	Have students make up questions for the "Ask a Scientist" section of fossweb.com (http://www.fossweb.com/modulesK-2/BalanceandMotion/index.html) Then students can compare their questions to those posted.	Use the 5Ws	Investigation 1, Part 2 making content chart entries (ask students to share their questions)	*Please use word bank vocabulary (Investigations 1	Foss Science Stories, www.fossweb.com , Science Kit

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Balance and Motion	S.IA.02.12 Share ideas about science through purposeful conversation.	Inquiry Skill: demonstrate a conversation about science ideas.	Item #1 on Balance and Motion Assessment	Assess progress Investigation 1, Part 3	Think Pair Share	Any post-investigation small group or whole group investigation	*Please use word bank vocabulary (Investigations 1	Foss Science Stories, www.fossweb.com , Science Kit
Balance and Motion	S.IA.02.13 Communicate and present findings of observations.	Inquiry Draw and label Write about it (assess either modality)	Item #2, 4 on Balance and Motion Assessment	Use the "movies" clips on fossweb media to pose a question to students about the videoclip (This can be done as a quiz)	Technology, Visual Learning style	www.fossweb.com	*Please use word bank vocabulary (Investigations 1	Foss Science Stories, www.fossweb.com , Science Kit

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<p>Balance and Motion</p>	<p>S.IA.02.14 Develop strategies and skills for information gathering and problem solving (books, internet, ask an expert, observation, investigation, technology tools).</p>	<p>Inquiry Demonstrate strategies for information gathering.</p>	<p>Item #9 on Balance and Motion Assessment</p>	<p>Use the “roller coaster” activity in the lab. (fossweb) Student have to problem solve in order to make the marble continue on the path they create.</p>	<p>Technology, Visual Learning style</p>	<p>Foss Web is an excellent resource. (http://www.fossweb.com/modulesK-2/BalanceandMotion/index.html)</p>	<p>*Please use word bank vocabulary (Investigations 1</p>	<p>Foss Science Stories, www.fossweb.com, Science Kit</p>
<p>Balance and Motion</p>	<p>S.RS.02.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.</p>	<p>Listening, speaking, viewing</p>	<p>Item #2, 3, 11 on Balance and Motion Assessment</p>	<p>Math Extension 3A No. 17-Student Sheet</p>	<p>Cooperative Learning Skills Offer different modalities for the expression of scientific thought. Other strategies for communication: -dramatization -rap/song -commercial -fashion show -dance</p>	<p>Investigation 2 Language Extension-write a cinquain poem, also Art extension Investigation 2 “Make Spin Art.”</p>	<p>*Please use word bank vocabulary (Investigations 1</p>	<p>Foss Science Stories, www.fossweb.com, Science Kit</p>

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<p>Balance and Motion</p>	<p>S.RS.02.15 Use evidence when communicating scientific ideas.</p>	<p>Reflection Communicate ideas Use proof</p>	<p>Item #5, 6, 8 on Balance and Motion Assessment</p>	<p>Home/School Connection Chart No. 21-Student Sheet. Ask students to share how they know that these are examples of rollers or spinners</p>	<p>Speaking Listening Viewing strategies</p>	<p>Math Extension B, What we Learned Chart, Investigation 1, Any of the Inquiry Questions on Investigation 1-3 at a glance</p>	<p>*Please use word bank vocabulary (Investigations 1</p>	<p>Foss Science Stories, www.fossweb.com, Science Kit</p>
<p>Balance and Motion</p>	<p>P.PM.02.15 Compare the weight of objects using balances.</p>	<p>Physical Properties</p>	<p>Items #10,11,12 on Balance and Motion Assessment</p>	<p>Wrapping up Part 4. (Instead of a whole group discussion, pose this question to students individually. "What can you do to make the mobiles balance?")</p>	<p>Compare/contrast</p>	<p>Investigation 1, Part 4</p>	<p>*Please use word bank vocabulary (Investigations 1</p>	<p>Foss Science Stories, www.fossweb.com, Science Kit</p>

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			OF LEARNING	FOR LEARNING				
Insects	S.IP.02.11 Make purposeful observation of the natural world using the appropriate senses.	Purposeful observation Appropriate senses	Student Journal	See Insect Test #1	Observe and record classroom insects using senses.	Investigations 1: Mealworms Student Sheet #14, #15 and Student Journal	*Please use word bank vocabulary (Investigations 1-6) accordingly as you explore this concept.	
Insects	S.IP.02.12 Generate questions based on observations.	Use observation to form your question	Use fossweb to have students generate a question after viewing. (example: Watch painted lady movie and write a question on an index card- ticket to leave)	Insect Test #9	Record and observe attributes. Communicate prediction or hypothesis.	Go to www.fossweb.com . Enter k-2 and select insects. Insect Hunt, movies and audio story and ask an expert are all good resources for students to observe and generate questions.	*Please use word bank vocabulary (Investigations 1-6) accordingly as you explore this concept. Wonder Curious 5 Ws	

Insects	S.IP.02.13 Plan and conduct simple investigations.	Making a plan	Use anecdotal notes as students plan.	Insect Test #6	Talk to a friend about your plan. Post-investigation: reflective discussion.	Investigation 3: Part 2 (Plan a habitat)	*Please use word bank vocabulary (Investigations 1-6) accordingly as you explore this concept. Order Steps Materials	
Insects	S.IP.02.16 Construct simple charts and graphs from data and observations.	Using data Construct simple chart	Student Sheet #16 (as a quiz) and # 18		Communicate observations through quantifiable means (ie tally marks) Simple T-charts Complete a graph using information from observations or data	Mealworm Adult Poster Investigation 1, Part 2, Student Sheet 15, Whole group Timeline, Calendar to document observations Investigation 2 Venn Diagram (whole group) Ants, Ants, and More Ants (level G, #1) Reading A to Z Student Sheet 24 Math Extension 6A and B Use with Investigation 6	*Please use word bank vocabulary (Investigations 1-6) accordingly as you explore this concept. Graph Chart Organize data	

<p>Insects</p>	<p>S.IA.02.12 Share ideas about science through purposeful conversation.</p>	<p>Skill: demonstrate a conversation about science ideas.</p>	<p>Read Insect Book Whole group. Ask questions on Pg. 45 and 46 (variation), 10 (camouflage), 14 using Think-pair-share. Listen intentionally to student responses and document as anecdotal notes.</p>	<p>Insect Test #5</p>	<p>Think Pair Share</p>	<p>Investigations 1-4. Go to www.fossweb.com. Enter k-2 and select insects. Use ask an expert. Divide questions up for respective groups. Bring students back together and have them talk to each other about what they learned.</p>	<p>*Please use word bank vocabulary (Investigations 1-6) accordingly as you explore this concept.</p> <p>I think I wonder I feel What do you think? Tell me more.</p>	
<p>Insects</p>	<p>S.IA.02.13 Communicate and present findings of observations.</p>	<p>Draw and label Write about it (assess either modality)</p>	<p>Student Sheet 10 (use after investigation 5)</p>	<p>Insect Test #2, #3</p>	<p>Model how to draw and observe an insect.</p>	<p>Investigations 1-6: Student page 3 and 4 to make an observation journal. (can be applied for a specific insect or all insects) HomeSchool Connection Investigation 1: Student Sheet No. 25 Go to www.fossweb.com. Enter k-2 and select insects. Insect Hunt, movies and audio story and ask an expert are all good resources for students to observe and generate questions.</p>	<p>*Please use word bank vocabulary (Investigations 1-6) accordingly as you explore this concept.</p>	

<p>Insects</p>	<p>S.IA.02.14 Develop strategies and skills for information gathering and problem solving (books, internet, ask an expert, observation, investigation, technology tools).</p>	<p>Demonstrate strategies for information gathering.</p>	<p>Expose students to Ask an expert on fossweb</p>	<p>Insect Test #7</p>	<p>Expose students to several sources (ie internet field trips, books, investigations, email an expert, videostreams, etc)</p>	<p>Ask an expert Apply within Investigations 1-6</p>	<p>*Please use word bank vocabulary (Investigations 1-6) accordingly as you explore this concept.</p>	
<p>Insects</p>	<p>S.RS.02.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.</p>	<p>Demonstrate a concept, sequence stages of insect life</p>	<p>Student Sheet #6 and #11</p>	<p>Insect Assessment #4, pg. 34 (teacher option: allow kinesthetic learners to manipulate stage pictures first, then number them)</p>	<p>Offer different modalities for the expression of scientific thought. Other strategies for communication: -dramatization -rap/song -commercial -fashion show -dance</p>	<p>Apply within Investigations 1-6 (Teachers: You can have students draw/diagram, perform any insect, habitat, stages, etc at your own discretion) Also: Investigation 1 Mealworms Student sheet 25 (illustration)</p>	<p>*Please use word bank vocabulary (Investigations 1-6) accordingly as you explore this concept.</p>	

<p>Pebbles, Sand and Silt</p>	<p>S.RS.02.15 Use evidence when communicating scientific ideas.</p>	<p>Communicate ideas Use proof</p>	<p>HomeSchool Connection 4. Have students look for evidence first. The t-chart can be used as a quiz. Make sure to clarify how many pieces of evidence of insects needed. (ie 5 ideas=100%, 4=80%, etc)</p>	<p>Insect Test #8</p>	<p>Model for students the application of basing ideas on evidence. Model the question for students in whole and small groups: How do you know? Ask students to communicate HOW they know regularly (ie science journals, etc)</p>	<p>Apply within Investigations 1-4</p>	<p>*Please use word bank vocabulary (Investigations 1-6) accordingly as you explore this concept.</p>	
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Pebbles, Sand and Silt	S.IP.02.11 Make purposeful observation of the natural world using the appropriate senses.	Purposeful observation Appropriate senses			Use sentence starters such as “I see, I hear, I can feel ____” Model observation skills within each investigation.	Investigations 1-4	Observe Notice Record Attributes Senses	
Pebbles, Sand and Silt	S.IP.02.12 Generate questions based on observations.	Use observation to form your question			Record and observe attributes. Communicate prediction or hypothesis.	Investigations 1-4	Wonder Curious 5 Ws	

<p>Pebbles, Sand and Silt</p>	<p>S.IP.02.13 Plan and conduct simple investigations.</p>	<p>Making a plan</p>			<p>Talk to a friend about your plan. Post-investigation: reflective discussion.</p>	<p>Investigation 1 (sorting mat, and sorting game-Student sheet 9)</p>	<p>Order Steps Materials</p>	
<p>Pebbles, Sand and Silt</p>	<p>S.IP.02.16 Construct simple charts and graphs from data and observations.</p>	<p>Using data Construct simple chart</p>			<p>Communicate observations through quantifiable means (ie tally marks) Simple T-charts Complete a graph using information from observations or data</p>	<p>Exmple: Investigation 1, student sheet 4 – Use the information from the sorting activity and ask students to chart it, communicate it in tallies or graph it. Math extension 2A, Student sheet 16</p>	<p>Graph Chart Organize data</p>	

<p>Pebbles, Sand and Silt</p>	<p>S.IA.02.12 Share ideas about science through purposeful conversation.</p>	<p>Skill: demonstrate a conversation about science ideas.</p>			<p>Use discussion strategies: Use strategic cues or signals to ensure conversation is on topic and respectful (ie pass a beanbag for the speakers turn, working in small groups cooperatively)</p>	<p>Investigations 1-4</p>	<p>I think I wonder I feel What do you think? Tell me more.</p>	
<p>Pebbles, Sand and Silt</p>	<p>S.IA.02.13 Communicate and present findings of observations.</p>	<p>Draw and label Write about it (assess either modality)</p>			<p>Use student journals for students to regularly record ideas in drawings and words.</p>	<p>Investigations 1-4</p>		

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<p>Pebbles, Sand and Silt</p>	<p>S.IA.02.14 Develop strategies and skills for information gathering and problem solving (books, internet, ask an expert, observation, investigation, technology tools).</p>	<p>Demonstrate strategies for information gathering.</p>			<p>Expose students to several sources (ie internet field trips, books, investigations, email an expert, videostreams, etc)</p>	<p>Apply within Investigations 1-4</p>		
<p>Pebbles, Sand and Silt</p>	<p>S.RS.02.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.</p>	<p>Demonstrate a concept</p>			<p>Offer different modalities for the expression of scientific thought. Other strategies for communication: -dramatization -rap/song -commercial -fashion show -dance</p>	<p>Apply within Investigations 1-4</p>		

<p>Pebbles, Sand and Silt</p>	<p>S.RS.02.15 Use evidence when communicating scientific ideas.</p>	<p>Communicate ideas Use proof</p>			<p>Model for students the application of basing ideas on evidence. Model the question for students in whole and small groups: How do you know? Ask students to communicate HOW they know regularly (ie science journals, etc)</p>	<p>Apply within Investigations 1-4</p>		
<p>Pebbles, Sand and Silt</p>	<p>P.PM.02.12 Describe objects and substances according to their properties (color, size, shape, texture, hardness, liquid or solid, sinking or floating)</p>	<p>Use properties to describe use of rock</p>						

<p>Pebbles, Sand and Silt</p>	<p>P.PM.02.41 Classify objects as single substances (ice, silver, sugar, salt) or mixtures (salt and pepper, mixed dry beans)</p>	<p>Classify Single substance or mixture</p>						
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