

Introduction to SONAR and Ocean Floor Mapping

Course: 8th Grade Science CCSS Standard Number(s): 8.E1.1

Unit 3 Oceans

Block(s)/Period(s): 1 2 3 4

	Description	
Unit Essential Question(s):	How can scientists obtain information about the bathymetry of the seafloor?	
Learning Target(s) “I can statements”	I can explain the concept of sonar I can describe the major components of a sonar system.	
Essential Vocabulary	Sonar, Continental Shelf, Continental Slope, Abyssal Plain, Mid-Ocean Ridge, Trench, Plate, Sea Floor Spreading	
Resources and Materials	Teacher	Student
	PowerPoint, Textbook	PowerPoint, Textbook, Composition Books, Straws, 6 Shoeboxes, 6 random classroom objets
Activating Strategy/ Cultural Connection (Opening Activity) <input type="checkbox"/> <i>Engage</i>	Students will complete the day’s section on the learning log/warm up sheet in their composition books.	
Cognitive Teaching Strategies Me/We/Few/You (TIP-Teacher input SAP-Student actively participates GP – Guided Practice IP-Independent Practice) Cognitive Teaching Practices: <input type="checkbox"/> <i>Explore: Learning Experiences</i> <input type="checkbox"/> <i>Explain: Learning Experiences</i>	Guided notes sonar (Following along with the teacher and the PowerPoint) Small lab highlighting the basic concept of SONAR using shoeboxes with mystery objects enclosed. Students will push straws through pre-made holes in the top of the shoeboxes in an attempt to figure out the identity of the mystery object.	
Summarizing Strategy (Closing Activity) <input type="checkbox"/> <i>Evaluate: Summarizing Strategy</i>	Reflection: Explain how you used the method of indirect observation to learn about the object.	
Assessment/Homework	Completing Data Notebook (Composition Books)	

Introduction to SONAR and Ocean Floor Mapping

<p>Extending/Refining</p> <p><input type="checkbox"/> <i>Elaborate: Extending & Defining</i></p>	<p>Intervention, Language Development</p>
---	--