



Student Worksheet: Which Robot When?

Ocean exploration relies on a variety of exploration vehicles, including submersibles like remotely operated vehicles (ROVs), and autonomous underwater vehicles (AUVs), uncrewed surface vessels (USVs), and more to explore and study remote areas of the ocean. These vehicles come in a variety of shapes, sizes, and configurations that make them suited for many mission objectives. When planning an expedition, ocean explorers must decide which exploration vehicle(s) is best for collecting the data they need (video, samples, measurements, etc) to advance our understanding of the ocean.

Section One: Exploration Vehicle Specifications

Use your group's assigned Exploration Vehicle Summary Sheet to complete the vehicle specification details below:

Name of Underwater Robot: _____

Maximum Operating Depth: _____

Tethered or Autonomous: _____

Included Tools/Equipment: _____

Special Capabilities or Advantages: _____

Other Unique Details: _____

Section Two: Mission Scenario Compatibility

Based on your group's assigned exploration vehicles specifications, determine whether or not your vehicle could complete the following exploration scenarios:

MISSION SCENARIO	CAN YOUR EXPLORATION VEHICLE COMPLETE THIS SCENARIO (YES/NO)	WHAT DETAILS HELPED YOU DETERMINE YOUR ANSWER?
1		
2		
3		
4		
5		
6		
7		
8		

