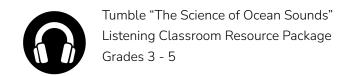# The Science of Ocean Sounds - Listening Guide

PART 1: Before Listening to the Podcast

A. Complete this chart and discuss

K - What you Know about the Ocean	W - What you want to know about the ocean	L - What you've learned about the ocean

Now, listen to the [first excerpt](#) and answer the following questions:

1) What do you think each of the three sounds from the scavenger hunt are? Use evidence and explain your reasoning.

2) In the podcast, Lindsay gives the hint that "One of the sounds is used to collect data about the ocean and the other two are used to help understand the ocean." What do you think she means by that?

3) Why do you think it's important to study the ocean? What do you think we can learn by collecting data about the ocean?
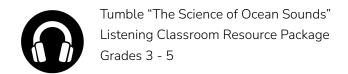
PART 2: Sound Scavenger Hunt. At the start of this episode, you hear three sound effects. As you listen to the episode, you'll learn what each of these sounds are. Use this sheet to help you complete the sound scavenger hunt as you listen!

How would you describe the sound?	What do you think the sound was?	What **evidence** makes you think that?	Explain your **reasoning**

As you listen and find out what the sounds were, use the chart below to take notes.

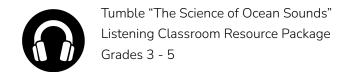| Describe the sound here	What was this sound?	What did the sound have to do with Amy's work?	How does the sound help scientists understand the ocean?

PART 3: Checking for Understanding

Answer these questions as you listen to the episode. Discuss them with a partner afterwards and see if you agree on the answers!

1. What is an ocean current?

2. How big are some of the biggest currents in the ocean?

3. What is the purpose of Amy's drifting buoys? How does Amy use them to learn about ocean currents?

4. What does *data sonification* mean? What are some examples Amy gives in the episode? What are some advantages to sonification over other forms of representing data?

5. Once you've finished listening to the episode, what were each of the three sounds given in the scavenger hunt?
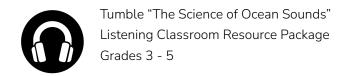
Discussion Questions

1. Amy's journey of learning about the ocean began when she was a young child. What's something you wonder about now that you might want to study more in the future?

2. Amy mentions how sonification has helped her as a blind scientist to better understand the data she needs to use to learn about the ocean. Can you think of other ways besides sound that scientists might be able to represent data to help them understand the world around them? What might be the advantages and disadvantages of each method?

3. On your KWL chart, what is something new that you learned after listening to the Tumble Science Podcast episode "The Science of Ocean Sounds?"

Graphic Organizer

Use the following chart to help you take notes as you listen to the episode. In the left-hand column, write down things that you learned from the episode. In the right hand column, write down questions you still have about each of the facts you wrote down. What more would you like to learn?

Fact About the Ocean	Questions