Lesson 4 Identifying Individual Whales

Students will know …

- individual whales can be identified observing unique characteristics of the dorsal fin and saddle patch.
- it is important to be able to identify individuals whales so that changes in the number of whales in the orca pods is known for management decisions.

Students will be able to…

- identify photos of members of L Pod matching them to the orca trading cards.

Focus Questions

1. How do researchers identify individual whales in the pods?
2. Why is identifying individual whales important?

Materials

- slides from the unit slides
- 7 sets of Orca Trading Cards (in the kit) - students use L Pod members ONLY in this activity
- 7 sets of 8 photos of orcas (in the kit)
- 7 pads of sticky notes (in the kit)

Teacher Background

Researchers have learned to recognize individual killer whales from photos. Photo-identification is an important research tool for studying various aspects of whale biology, including distribution, habitat, and changes in population.

For over four decades, the Center for Whale Research has been conducting annual photo-identification studies of Southern Resident killer whales. Researchers must be skilled at recognizing subtle differences in the whale’s body appearance as they study the pictures. Their long-term research has generated unprecedented baseline information on the whales' population dynamics, health, demography, social structure, and individual life histories. Thanks to the Center’s research, more detail is known about the endangered Southern Resident killer whales than any other group of marine mammals in the world. They are a non-profit 501(c) 3 organization, whose mission is to facilitate the recovery of this beloved population of Orcas through non-invasive scientific study, public awareness and education, and conservation action.
Procedures

Identifying Members of L Pod

1. Display this slide to introduce students to the Center for Whale Research and the work they do (see Teacher Background). In the video, also linked on this slide, Ken Balcomb talks about the photo ID studies.

2. Divide students into working groups.

3. To introduce the activity, say something like:
   
   *One of the field researchers took photos of a recent encounter with L pod. It is the responsibility of your group to identify the whales encountered.*

4. Display this slide and reveal only the question; ask students how researchers identify individual whales (presented in opening video). Reveal the 3 observations listed on the slide. Display the next 4 slides so students know what observations will be useful to identify the whales in the photos they will receive.

5. Distribute a set of the orca trading cards to each group and have them sort the cards so that they are working with only members of L pod. Instruct them to put aside the rest of the cards (J and K pod whale cards).

6. Distribute a packet of the photos of the orcas (in kit) that need identifying.

7. Explain that when a group has decided on the identity of each whale, they should use a sticky note to label the whale with its name. Additionally, they should add to the label:
   
   a) Male or female   b) When the whale was born

8. When all groups have identified the whales, display the slides of the same 8 photos and have students share the name of each whale. As the whales are identified, have students share what specific observations helped them make the match.
9. Clean up - make certain groups combine the Orca Trading Cards so that their set includes all 3 pods before returning them to the kit.

**Additional Resources**
Visit this [link](#) to the Center for Whale Research website to see images and read about the most recent killer whale encounters (2018) in the Salish Sea.

The **Whale Museum** website includes [photos of individual Southern Resident whales](#).