



# Killer Whale Trading Card Activity

## Ocean Literacy

### Principle: #5

**The ocean supports a great diversity of life and ecosystems.** Ocean biology provides many unique examples of life cycles, adaptations and important relationships among organisms that do not occur on land. Ocean habitats are defined by environmental factors.

## Ocean Literacy

### Principle: #6

**The oceans and humans are inextricably interconnected.** Everyone is responsible for caring for the ocean. Individuals and collective actions are needed to effectively manage ocean resources for all.

## Activity from Killer Whale Recovery curriculum:

- High school (Killer Whale Recovery; 5 lessons with a NOAA representative available for the 5<sup>th</sup> lesson)
- Elementary (Springer curricula; 1<sup>st</sup>-3<sup>rd</sup> grade and 4<sup>th</sup>-6<sup>th</sup> grade)

**Target Audience:** Outreach event for all ages or classroom activity, a pproximately 15-40 minutes.

### Space requirements:

Open space where people can mingle or move about.

**Purpose:** Increase awareness of the endangered status of the Southern Resident killer whale population (J, K, and L pods) and highlight how scientists and NOAA managers use the annual census to monitor population trends, demography, and individual life histories. Identifying the threats that these animals face and inspiring people to support recovery efforts are the goals. We hope that everyone who participates in this trading card activity will realize that protecting these whales, really means protecting and restoring their habitat which we all share.

### Supplies Need:

- Trading cards (organize by matralines depending on number of participants and additional cards so that everyone can take one home with them)
- Chalk board, chalk to connect generations and relationships, tape
- ID guides for visual learners to connect matralines with pods
- Brochures to supplement learning about the SRKW, Ecotypes poster or Salish Sea poster, Marine Mammals Two by Two video
- Great to use with "Can you find your orca family activity"

### Trading Cards Provide:

- Names of individual whales in the Southern Resident community,
  - Adoption name (like Mike) and scientific name (J26)
- Photo of unique dorsal fin and saddle patch which is used to identify individuals by researchers and the general public.
- The letter of the pod each whale belongs is on one side of the card, along with the matriline written vertically along the side.
- The cards are color coded by decades, another way to look at which whales were born when and how many whales in different age classes.
- Also each card has a fun fact and a stewardship message.



## Trading Card Activity:

1. Gather your group together and share a few qualities about the social structure of resident killer whales and the different kinds of information on the cards.
  - a. The Southern Resident population is endangered and made up of three pods, J, K, and L.
  - b. Each pod is made up of family groups called, matriline, which consist of mothers and her sons and daughters. Her offspring stay with her throughout their lives. When daughters are old enough to produce calves the matriline grows and can span several generations. The oldest mother in the pod is considered the matriarch and she is the leader.
2. Next engage them by asking, "Raise your hand if you know any of these whales?" Hand everyone in the group 1-2 cards (depending on the size of group) from 1 or more matriline.
3. Challenge each person to walk around the space and find out who they are related to by reading the trading card and asking others about their cards. Once they have found their matriline (mother and her offspring) have that group tell the instructor.
4. Once all matriline groups are formed have that group share how they are related to one another. Mother, brothers, sisters, aunts, uncles, nieces, nephews, and maybe even grandmother. Or they could draw a family tree on the board of their matriline.
5. Next, have the matriline groups form a pod if large enough group size or hand them the rest of the cards from that pod and ask them:
  - a. Who is the oldest female? What does the color of the card mean? Why does this matter?
  - b. By looking at the dates, what else can you determine? (age of mother when pregnant, periods between births, longevity, etc.)
6. Thank them for participating, let them keep a few cards and provide additional materials, like a brochure or sticker sheet to help remind them who NOAA is and what we are doing to promote killer whale recovery, as well as Science, Service, and Stewardship.

## Tips on how to modify the activity:

Younger kids: If kids are unable to read, do this as a whole group activity. Read aloud the name(s) and tell them who the family tie is when handing out the cards. With each new card, have the students create family groups. To culminate have kids share what they learned or ask questions. Keep it simple.

Older kids: Rather than actively making matriline groups, they could sit at a large table and build matriline groups, pods, and learn about some of the population parameters that influence population sizes. They could estimate how many juveniles there are, post reproductive females, # of males, etc.

Adults/Teachers: After activity emphasize the other information on the cards and ask them for different ways they could use the cards (incentives,

### Continue to engage:

- Prompt them to share other facts on the cards;
- They could draw out their matriline on the board;
- Create a pod by joining matriline groups

Acknowledge when they participate and accomplish certain tasks (high five or verbal accolade)