

“Food Web Yarn Activities”

Objective: Students use problem solving to form food webs from information about organisms’ diets

Grade Levels: 2-5

Duration: 20 minutes

Materials:

- 1) Organism cards (with their predators listed on the back)
- 2) Pieces of yarn
 - a. Yellow – energy flow from the sun to the producer
 - b. Green – energy flow from the producer to the primary consumer (herbivore)
 - c. Pink – energy flow from the primary consumer (herbivore) to the secondary consumer (omnivore or carnivore)
 - d. Red – energy flow from the secondary consumer (omnivore or carnivore) to subsequent consumer (omnivore or carnivore)
- 3) Food Web answer keys

Procedure:

- 1) Make sure that students understand how a food web is created
- 2) Give the group animal cards and the correct number and color of pieces of yarn
- 3) As a group, students will use the pieces of yarn to show the energy flow from one organism to another
 - a. Students will connect the animal cards with yarn so that one end of the yarn leads to the card (e.g. – what they eat) and the other end of the yarn leads away from the card (e.g. – what eats them)
- 4) Note:
 - a. With younger students, you may want to make the food web on the board with them first, with the students reading the information from their cards to help produce it
 - b. With older students, you may want to instruct them to group the cards into producers, herbivores, and carnivores, and then make their connections between these groups



Extension:

- 1) While they are in food web, ask one of the students to become extinct. What happens to the food web? If there are more students than cards, this would be a good activity for the spectators to be in charge of.
- 2) What other animals are not represented that could be in the food web, too?

Temperate Rainforest Food Web

Sun – gives energy to conifer, vine maple tree, and grass

Conifer – leaves eaten by insect

Vine maple tree – leaves eaten by insect and bark eaten by elk

Grasses – eaten by insect, rabbit, and elk

Insect – eaten by salmon, owl, and frog

Rabbit – eaten by owl

Salmon – eaten by bear

Elk – eaten by bear

Antarctic Food Web

Sun – gives energy to the phytoplankton

Phytoplankton – eaten by the krill

Krill – eaten by the blue whale, Adélie penguin, petrel, fish, and squid

Blue whale – killed by humans (used for oil)

Adélie penguin – eaten by killer whale

Fish – eaten by Emperor penguin

Squid – eaten by Emperor penguin, killer whale, and sperm whale

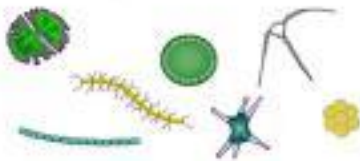
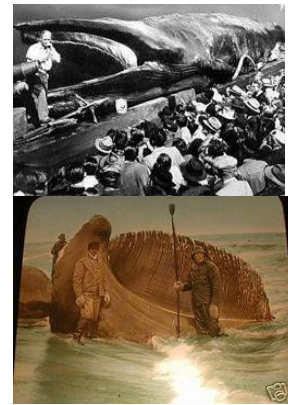
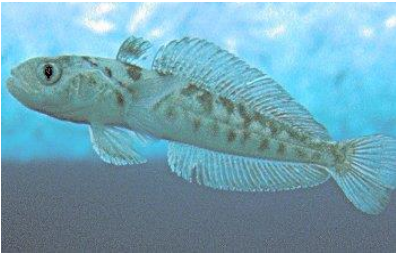
Emperor penguin – eaten by killer whale

Killer whale (orca) – killed by humans (out of fear)

Sperm whale – killed by humans (used for oil and to make perfume)







<p>Sun – gives energy to conifer, vine maple tree, and grass</p> <p>3 Yellow</p>	<p>Conifer – leaves eaten by insect</p> <p>1 Green</p>	<p>Vine maple tree – leaves eaten by insect and bark eaten by elk</p> <p>2 Green</p>
<p>Salmon – eaten by bear</p> <p>1 Red</p>	<p>Elk – eaten by bear</p> <p>1 Red</p>	<p>Rabbit – eaten by owl</p> <p>1 Pink</p>
<p>Sun – gives energy to the phytoplankton</p> <p>1 Yellow</p>	<p>Phytoplankton – eaten by the krill</p> <p>1 Green</p>	<p>Krill – eaten by the blue whale, Adélie penguin, petrel, fish, and squid</p> <p>5 Pink</p>
<p>Fish – eaten by Emperor penguin</p> <p>1 Red</p>	<p>Squid – eaten by Emperor penguin, killer whale, and sperm whale</p> <p>3 Red</p>	<p>Emperor penguin – eaten by killer whale</p> <p>1 Red</p>

<p>Insect – eaten by salmon, owl, and frog</p> <p>3 Pink</p>	<p>Grasses – eaten by insect, rabbit, and elk</p> <p>3 Green</p>	<p>Frog – no predator in this food web</p> <p>No Yarn</p>
<p>Adélie penguin – eaten by killer whale</p> <p>1 Red</p>	<p>Blue whale – killed by humans (used for oil)</p> <p>1 Red</p>	<p>Petrel – no predator in this food web</p> <p>No Yarn</p>
<p>Sperm whale – killed by humans (used for oil and to make perfume)</p> <p>1 Red</p>	<p>Killer whale (orca) – killed by humans (out of fear)</p> <p>1 Red</p>	<p>Human – no predator in this food web</p> <p>No Yarn</p>

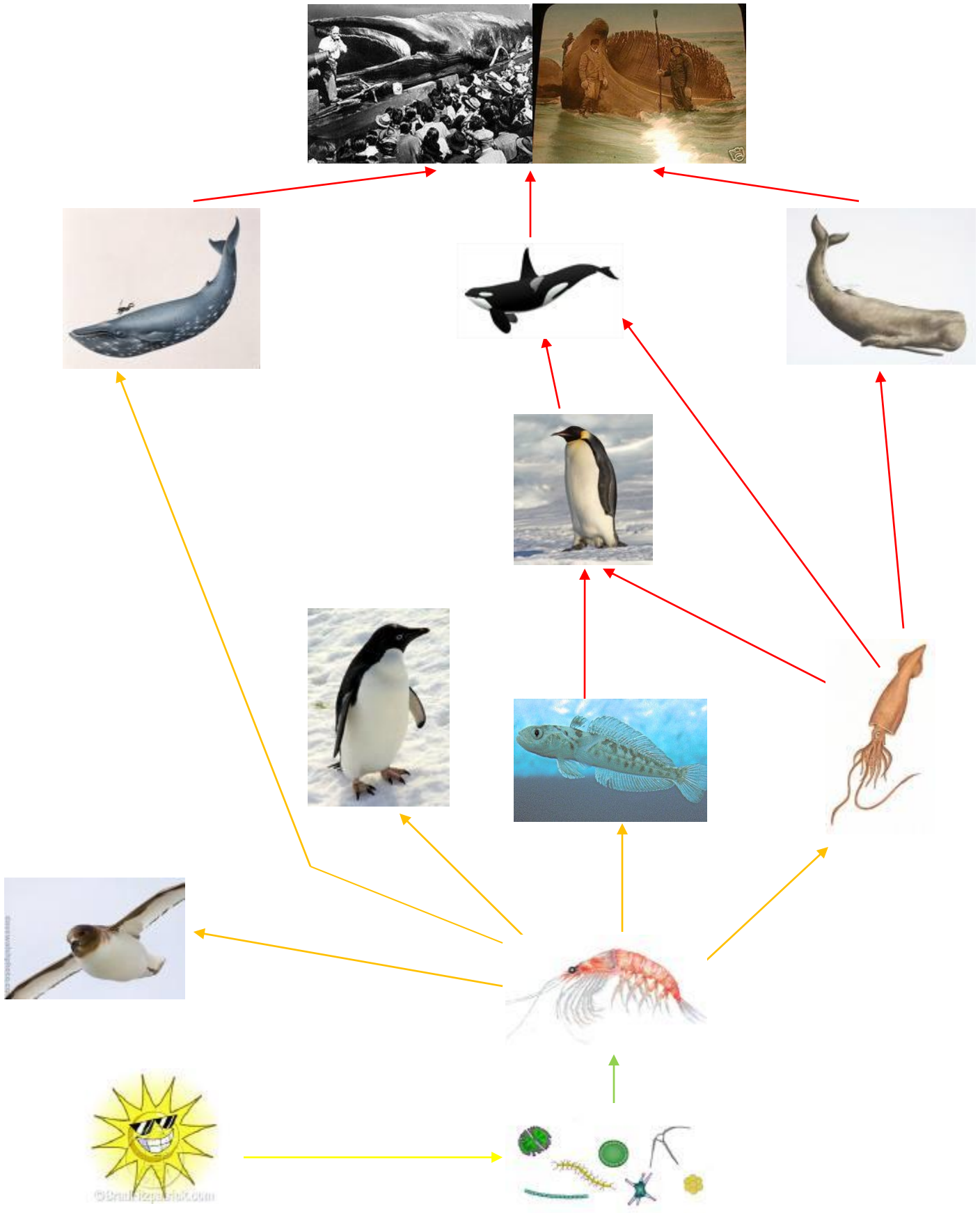
Bear –
No predator in this
food web

No Yarn

Owl –
No predator in this
food web

No Yarn

Antarctic Food Web



Antarctic Food Web

