The next time you have a bite to eat, say “Thank you, Photosynthesis!” Every bite you take is thanks to the sun’s energy and the incredible ability of plants to catch the energy so they can build sugars. Play Food Web Bingo and trace the flow of the sun’s energy, into green plants, and into consumers like you. The more creatures you discover, the more points you’ll earn!

**Time:** 30-minute activity

**Materials:**
- You and your skills of observation
- Food Web Bingo card (provided below; copy by hand, print, or take a screenshot)
- A pencil or pen
Directions:

1. With permission from an adult, head outside with your Food Web Bingo card and begin exploring a nearby food web. You could visit a pond or a really different place like a yard, a city park, a garden, or someplace more wild. You’re on the lookout for living creatures!

2. Look up to the sky and look for the sun. Is it shining? Is it hiding behind clouds? Or maybe the sun has set, and it’s dark out because you are investigating a night-time food web! Every day, the sun will rise and its energy will reach the earth. Make a mark on the center space on your Food Web Bingo card labeled “SUN”. That’s your free space, because the sun is the source of energy for nearly all food webs on Earth.
3. Put on your food web cap, and open your eyes and ears to the creatures around you. You are a food web detective on the lookout for examples of creatures on your Food Web Bingo card. Can you find a producer? Producers make their own food inside their own bodies. They catch the sun's energy and with a bit of water and carbon dioxide, make sugar so they can live and grow. Look for things that are green, and rooted into the ground — plants!

4. What do you think might eat that plant? Do you see anything nibbling on that plant right now? Can you imagine a creature that would think that plant is tasty? You've come up with a Primary Consumer — a creature that eats plants! We call those creatures herbivores.
5. Can you think of a creature that might eat that primary consumer? You’re on the lookout for a creature called a Secondary Consumer. They are predators! We call them carnivores.

6. How about a decomposer? Can you find a mushroom? Can you find evidence that decomposers have been at work? Bacteria are so tiny, we can’t see them with our eyes, but we can notice their work as we find things that were once living rotting away and decomposing into smaller and smaller pieces.
7. Each time you find a new creature, add it to your Food Web Bingo card, and draw a line with an arrow pointing in the direction the energy flows from the sun, to a producer, to the primary consumer that eats that producer and on and on. The more connections you discover, the more points you earn. Soon you will have a food web drawn on your bingo card! Well done!

**Wonder Why with Nature WY…**

Do you think you could play food web bingo with YOU as the main consumer? What do you eat, and where do those foods come from? Take a walk through the grocery store or a garden and think about all the foods you eat and all of the connections among those foods. Don’t forget the sun!

How many ways can you connect yourself to the food web of a pond? As you explore a pond, you may become an active part of that food web when an adult, female mosquito lands on your arm for a sip of your blood!

How many pieces of a food web do you think you could take away, and still have a food web that works? If you take away just one creature from your Food Web Bingo card, could the food web still work? What if you took away two? What do you think would happen if you took away all of the Primary Consumers? Wonder what would happen if the sun stopped shining? That’s a chilly thought!

Wonder how your own food web has changed over your life? What did you eat when you were younger? Is it the same now? Other living organisms fit into food webs differently depending on their life stage, too, like an adult mosquito that drinks blood compared to a larval mosquito that gathers fine particles of food from the water.

Wonder about the organisms you found as you investigated a food web, and want to learn more? Try using Seek by iNaturalist to help you identify the living creatures you discovered and learn more about how they find the energy and nutrients they need for life.
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**Scoring:**

1. Five in a row (down): 1 pt
2. Seven in a row (across): 3 pts
3. Two connected rows: 5 pts
4. Three connected rows: 10 pts
5. Five connected rows: 50 pts
6. Blackout: 100 pts!

**Definitions:**

**Producer** = makes its own food through photosynthesis (plants, algae)

**Primary Consumer** = eats producers (= herbivores and omnivores)

**Secondary Consumer** = eats primary consumers (= carnivores and omnivores)

**Decomposers** = eat dead things (= bacteria, fungi), and may include detritivores (= scavengers, like vultures)
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