

FOOD CHAINS: IT'S ALL ABOUT ENERGY

USE THE PICTURES AND DESCRIPTIONS BELOW TO FILL IN THE FOOD WEB AT THE BOTTOM FOR THIS NORTH AMERICAN HABITAT.



CONSUMER: THIS GARTER SNAKE CONSUMES OTHER ANIMALS TO GET ITS ENERGY.



PRIMARY CONSUMER: THE GRASSHOPPER IS A HERBIVORE THAT CONSUMES PRODUCERS AND IS ALSO EATEN BY HIGHER LEVEL CONSUMERS.



THE SUN CREATES A LOT OF ENERGY AND GIVES SOME OF IT TO PLANTS FOR ANIMALS TO EAT.



PRODUCER: PLANTS LIKE GRASS PRODUCE THEIR OWN FOOD WITH ENERGY FROM THE SUN.



CONSUMER: THIS HAWK IS A CARNIVORE. HE GETS HIS ENERGY FROM EATING MEAT. DO YOU THINK ANY OF THESE ANIMALS COULD EAT HIM?



CONSUMER: THIS AMERICAN BULLFROG IS AN INSECTIVORE AND GETS ITS ENERGY FROM INSECTS.



ANSWER KEY



THE SUN ISN'T ALWAYS LISTED ON A FOOD CHAIN, BUT IT IS WHERE ALL OF THE ENERGY COMES FROM THAT TRAVELS DOWN THE CHAIN.



PLANTS PRODUCE THEIR OWN FOOD WITH ENERGY FROM THE SUN. THINK ABOUT THE PRODUCE SECTION OF THE GROCERY STORE.



THE ANIMAL IN ANY FOOD CHAIN THAT IS AN HERBIVORE IS CALLED A PRIMARY CONSUMER. THIS LEVEL GETS THE MOST ENERGY OF ANY CONSUMERS BECAUSE THEY DON'T HAVE TO HUNT DOWN THEIR FOOD.



THE BULLFROG WOULD BE A SECONDARY CONSUMER BECAUSE THEY EAT THE INSECTS THAT EAT THE PLANTS. SECONDARY CONSUMERS CAN BE OMNIVORES, BUT THEY MUST CONSUME OTHER ANIMALS.



THE SNAKE WOULD BE A TERTIARY CONSUMER BECAUSE IT EATS THE SECONDARY CONSUMER. THESE ANIMALS ARE TYPICALLY CARNIVORES.



THE HAWK IN THIS CHAIN WOULD BE A QUATERNARY CONSUMER OR APEX PREDATOR. ONLY 10% OF THE ENERGY IS PASSED DOWN THE CHAIN. THEN THE PREY AND PREDATOR EXPEND ENERGY SO THESE PREDATORS ONLY RECEIVE ABOUT .01% OF THE ENERGY THAT STARTED THE CHAIN.



- WHY DO THE ARROWS GO THAT WAY? DOES THAT MEAN THE SUN EATS THE GRASS?
- HAVE YOU EVER SEEN A CHUBBY CHEETAH? WHY DO YOU THINK THAT IS?
- CAN YOU EXPLAIN THIS FOOD CHAIN IN YOUR OWN WORDS?
- WHAT DO YOU THINK WOULD HAPPEN IF WE REMOVED _____ FROM THIS FOOD CHAIN?
- HOW MUCH ENERGY WOULD THE GRASSHOPPER RECEIVE IN THIS FOOD CHAIN? (10%)
- CAN YOU MAKE A FOOD CHAIN WITH THE ANIMALS YOU SAW AT THE ZOO?