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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Date: \_\_\_\_\_\_\_\_\_ | Period: \_\_\_\_\_\_\_ |

Energy Transfer

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  | 1  E |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | C |  |  |  |  | 2  P | R | I | M | A | R | Y | S | U | C | C | E | S | S | I | O | N |  |  |  |  |  |
|  |  |  | O |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3  C | E | L | L | U | L | A | R | R | E | S | P | I | R | A | T | I | O | N |  |  |  |  |  |  |  |  |  |  |
|  |  |  | O |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | G |  |  |  |  |  |  |  |  |  |  | 4  N |  |  |  | 5  S |  |  |  |  |  |  | 6  P |  |  |  |  |
|  |  |  | I |  | 7  C |  |  |  |  |  |  | 8  F |  | I |  |  |  | E |  |  |  |  |  |  | H |  |  |  |  |
|  |  |  | C |  | L |  | 9  T |  |  |  |  | O |  | T |  |  |  | C |  |  |  |  |  |  | O |  |  |  |  |
|  |  |  | A |  | I |  | R |  |  |  |  | O |  | R |  | 10  F | O | O | D | W | E | B |  |  | T |  | 11  C |  |  |
|  |  |  | L |  | M |  | O |  | 12  O |  |  | D |  | O |  |  |  | N |  |  |  |  |  |  | O |  | A |  |  |
|  |  |  | S |  | A |  | P |  | M |  |  | C |  | G |  |  |  | 13  D | E | C | O | M | P | O | S | E | R | S |  |
|  |  |  | U |  | X |  | H |  | N |  |  | H |  | E |  |  |  | A |  |  |  |  |  |  | Y |  | B |  |  |
|  |  |  | C |  | C |  | I |  | I |  | 14  C | A | R | N | I | V | O | R | E | S |  |  |  |  | N |  | O |  |  |
|  |  |  | C |  | O |  | C |  | V |  |  | I |  | C |  |  |  | Y |  |  |  |  |  |  | T |  | N |  |  |
|  |  |  | E |  | M |  | L |  | O |  |  | N |  | Y |  |  |  | S |  |  | 15  P |  |  |  | H |  | C |  |  |
|  |  |  | S |  | M |  | E |  | R |  |  |  |  | 16  C | O | N | S | U | M | E | R |  |  |  | E |  | Y |  |  |
|  |  |  | S |  | U |  | V |  | E |  |  |  |  | L |  |  |  | C |  |  | O |  |  |  | S |  | C |  |  |
|  |  | 17  P | I | O | N | E | E | R | S | P | E | C | I | E | S |  |  | C |  |  | D |  |  |  | I |  | L |  |  |
|  |  |  | O |  | I |  | L |  |  |  |  |  |  |  |  |  |  | E |  |  | U |  |  |  | S |  | E |  |  |
|  |  |  | N |  | T |  |  |  | 18  P | H | O | S | P | H | O | R | U | S | C | Y | C | L | E |  |  |  |  |  |  |
|  |  |  |  |  | Y |  |  |  |  |  |  |  |  |  |  |  |  | S |  |  | E |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | 19  H | E | R | B | I | V | O | R | E | S |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | O |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | 20  N | I | T | R | O | G | E | N | F | I | X | I | N | G | B | A | C | T | E | R | I | A |  |  |

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| **Across**  **2.** the type of succession that occurs on a surface where no ecosystem existed before; such as rocks or sand dunes  **3.** the process of breaking down food to yield energy  **10.** A diagram that shows the feeding relationships between organisms in an organism  **13.** Breaks down dead organisms in an ecosystem and returns nutrients to the soil, water, and air  **14.** Consumers that only eat other consumers  **16.** Gets energy by eating other organism  **17.** a species the colonizes an uninhabited area and that starts an ecological cycle in which many other species become established  **18.** The movement of phosphorus from the environment to organisms and then back to the environment  **19.** Consumers that only eat producers  **20.** The only organisms that can fix atmospheric nitrogen into chemical compounds are a a few species of bacteria | **Down**  **1.** a gradual process of change and replacement of some or all of the species in an community  **4.** the process in which nitrogen circulates among the air, soil, water, plants, animals in an ecosystem  **5.** the more common type of succession, occurs on a surface where an ecosystem has previously existed  **6.** Energy from the sun enters an ecosystem when a plant uses sunlight to make sugar molecules  **7.** a final, stable community in equilibrium with the environment  **8.** a sequence in which energy is transferred from one organism to the next as each organism eats another organism  **9.** One of the steps in a food chain or food pyramid  **11.** A process by which carbon is cycled between the atmosphere, land, water, organism  **12.** consumers that eat both plants and animals  **15.** an organism that makes its own food |

   Photosynthesis        Producer       Consumer       Herbivores       Carnivores        omnivores        Decomposers       Cellular Respiration        Food Chain       Food web       Trophic level        Carbon cycle       Nitrogen-fixing bacteria        Nitrogen cycle       Phosphorus Cycle       Ecological Succession       Primary Succession       Secondary Succession       Pioneer Species       Climax Community