

Bacteria and Fungi

| If you roll a ... | Process | End Form | Go to ... |
|-------------------|--|---|------------------|
| 1 | You are carbon in the form of CO ₂ that has been <u>given off by <i>respiration</i> in an ocean-dwelling fungus</u> and enter the ocean by <i>diffusion</i> and stored as... | Calcium Carbonate (sea shell) | Ocean |
| 2 | You are carbon in the form of CO ₂ that has been <u>given off by <i>respiration</i> in an ocean-dwelling bacterium</u> and enter the ocean by <i>diffusion</i> and stored as... | Carbon dioxide, CO ₂ (dissolved gas) | Ocean |
| 3 | You are carbon in the form of sugar that has <u>entered the body of fungus by <i>ingestion</i></u> and stored as... | Protein (cell wall) | Litter and Waste |
| 4 | You are carbon in the form of CO ₂ that has been <u>given off by <i>respiration</i> in an ocean-dwelling fungus</u> and enter the ocean by <i>diffusion</i> and stored as... | Calcium carbonate (limestone) | Ocean |
| 5 | You are carbon in the form of glucose that has been <u>used by bacteria for <i>energy</i></u> and enter the atmosphere by <i>respiration</i> and stored as... | Carbon dioxide (CO ₂) | Atmosphere |
| 6 | You are carbon in the form of <u>protein in a bacteria cell wall</u> and are <u><i>excreted</i> through a cow's digestive tract</u> and fall to the ground as... | Animal waste | Litter and Waste |

Fossil Fuel

| If you roll a ... | Process | End Form | Go to ... |
|-------------------|--|---|--------------------------|
| 1 | You are carbon in the form of <u>oil that has leaked</u> through a hole in an oil tanker and <u>entered the ocean</u> as an <i>oil spill</i> and stored as... | Oil (Crude) | Ocean |
| 2 | You are carbon in the form of coal in an <u>underwater coal deposit that has combined with oxygen in a chemical reaction</u> and enter the ocean by <i>diffusion</i> and stored as... | Carbon dioxide, CO ₂ (dissolved gas) | Ocean |
| 3 | You are carbon in the form of an <u>oil spill that has leaked</u> through the hull of a tanker and <u>enter a fungus by ingestion</u> and stored as... | Protein (cell wall) | Litter and Waste |
| 4 | You are carbon in the form of <u>gasoline that was created in a factory</u> Salt Lake City | Pollution (petroleum) | Industry and Vehicles |
| 5 | You are carbon in the form of CO ₂ that has been <u>given off by diffusion from an underground coal deposit</u> and enter the atmosphere by <i>diffusion</i> and stored as... | Carbonic acid (H ₂ CO ₃) | Atmosphere |
| 6 | You are carbon in the form of <u>coal that just keeps getting buried</u> under more layers of sedimentary rock. | Coal (fossil fuel) | Stay Here |

Litter and Waste

| If you roll a ... | Process | End Form | Go to ... |
|-------------------|--|-----------------------------------|--------------------|
| 1 | You are carbon in the form of <u>fish scales that have fallen to the ocean floor</u> after the <i>death</i> of a fish and stored as... | Calcium carbonate (limestone) | Ocean |
| 2 | You are carbon in the form of <u>whale waste excreted by a whale's digestive tract</u> and <i>ingested</i> by a hermit crab and stored as ... | Calcium carbonate (sea shell) | Ocean |
| 3 | You are carbon in the form of <u>cow waste excreted by a cow's digestive tract and taken in by another cow</u> through <i>ingestion</i> and <i>excreted</i> again and stored as that fertilizes the ground | Waste (organic) | Bacteria and Fungi |
| 4 | You are carbon in the form of <u>coal that has formed by the burial of dead ferns</u> in an ancient fern grove and stored as... | Coal | Fossil Fuel |
| 5 | You are carbon in the form of CO ₂ that has been <u>given off by rotting of dead leaves in a forest</u> and stored as... | Carbon dioxide (CO ₂) | Atmosphere |
| 6 | You are carbon in the form of cellulose that has <u>formed by the metabolism of nutrients from worm castings</u> and stored as... | Grass | Vegetation |

Industry and Vehicles

| If you roll a ... | Process | End Form | Go to ... |
|-------------------|--|---|------------|
| 1 | You are carbon in the form of oil that has <u>leaked out of the engine of an old garbage truck</u> and enter the ocean as <u>runoff</u> and stored as... | Pollution (petroleum) | Ocean |
| 2 | You are carbon in the form of <u>coal and burned to heat water and produce steam</u> for the production of electricity. You enter the atmosphere and are stored as... | Carbon dioxide, CO ₂ | Atmosphere |
| 3 | You are carbon in the form of <u>gasoline that was created in a factory</u> Salt Lake City | Pollution (petroleum) | Stay Here |
| 4 | You are carbon in the form of oil that has <u>leaked out of a cruise ship that has capsized off the coast of Spain</u> . You enter the ocean as... | Pollution (petroleum) | Ocean |
| 5 | You are carbon in the form of CO ₂ that has been <u>given off by combustion from a power plant</u> . You dissolve in water in the air and stored as... | Carbonic acid (H ₂ CO ₃) | Atmosphere |
| 6 | You are carbon in the form of CO ₂ that has been <u>given off by combustion in the cars</u> of Los Angeles. You dissolve in water in the air and stored as... | Carbonic acid (H ₂ CO ₃) | Atmosphere |

Vegetation

| If you roll a ... | Process | End Form | Go to ... |
|-------------------|---|--|--------------------|
| 1 | You are carbon in the form of sugar that has been <u>metabolized and given off by respiration in a tree</u> and enter the atmosphere and stored as... | Carbon dioxide, CO ₂ | Atmosphere |
| 2 | You are carbon in the form of CO ₂ that has been <u>given off by respiration in an ocean-dwelling sea weed</u> and enter the ocean by <i>diffusion</i> and stored as... | Carbon dioxide, CO ₂ (dissolved gas) | Ocean |
| 3 | You are carbon in the form of <u>sugar that was created by photosynthesis in mulberry leaf</u> that fell to the ground and stored as... | Protein (cell wall) | Litter and Waste |
| 4 | You are carbon in the form of <u>sugar that was eaten by a hippopotamus</u> and stored as... | glycogen | Animal |
| 5 | You are carbon in the form of glucose that has been <u>formed by photosynthesis in the leaves of an ash tree</u> . You have been converted to a gas and sent to the atmosphere by <i>respiration</i> and are stored as... | Carbon dioxide (CO ₂) | Atmosphere |
| 6 | You are carbon in the form of <u>a rose petal that has died and fallen to the ground as organic waste</u> that fertilizes the ground | Organic waste | Bacteria and Fungi |

Ocean

| If you roll a ... | Process | End Form | Go to ... |
|-------------------|--|---|-------------|
| 1 | You are carbon in the form of CO ₂ that combines with calcium ions in the ocean in a <u>chemical reaction to form a hermit crab shell</u> and stored as... | Calcium Carbonate (sea shell) | Animal |
| 2 | You are carbon in the form of CO ₂ that has been <u>given off by respiration in an ocean-dwelling sea weed</u> and enter the ocean by <u>diffusion</u> and stored as... | Carbon dioxide, CO ₂ (dissolved gas) | Stay Here |
| 3 | You are carbon in the form of CO ₂ that <u>leaves the ocean through diffusion, enters the atmosphere</u> and is stored as... | Carbon dioxide (CO ₂) | Atmosphere |
| 4 | You are carbon in the form of CO ₂ that <u>has been given off by respiration in giant squid</u> and enter the ocean and are stored as... | Carbon dioxide, CO ₂ (dissolved gas) | Stay Here |
| 5 | You are carbon in the form of oil that has formed by the <u>burial of dead algae that has sunk and built up on the ocean floor</u> and buried by sediments and stored as... | Oil | Fossil Fuel |
| 6 | You are carbon in the form of CO ₂ that has been <u>diffused out of the ocean because of a warming of the water temperature</u> and enter the atmosphere as... | Carbon dioxide (CO ₂) | Atmosphere |

Animal

| If you roll a ... | Process | End Form | Go to ... |
|-------------------|---|---|------------------|
| 1 | You are carbon in the form of sugar that has been <u>metabolized</u> and given off by <u>respiration in grasshopper</u> and enter the atmosphere and stored as... | Carbon dioxide, CO ₂ | Atmosphere |
| 2 | You are carbon in the form of CO ₂ that has been given off by <u>respiration in a yellow tuna</u> and enter the ocean by <u>diffusion</u> and stored as... | Carbon dioxide, CO ₂ (dissolved gas) | Ocean |
| 3 | You are carbon in the form of sugar that was <u>metabolized</u> in a cow and <u>dropped to the ground by excretion</u> and stored as... | Organic waste | Litter and Waste |
| 4 | You are carbon in the form of CO ₂ that given off by <u>respiration in a killer whale</u> and stored as... | Carbon dioxide, CO ₂ (dissolved gas) | Ocean |
| 5 | You are carbon in the form of glucose that has been <u>eaten</u> by a Dixie Middle School student required to run the mile in PE. You have been <u>converted to a gas through respiration</u> , sent to the atmosphere and stored as... | Carbon dioxide (CO ₂) | Atmosphere |
| 6 | You are carbon in the form of <u>dietary fiber excreted</u> from a tall ox in a field and enter the ground as... | Organic waste | Litter and Waste |

Atmosphere

| If you roll a ... | Process | End Form | Go to ... |
|-------------------|---|--|------------|
| 1 | You are carbon in the form of CO ₂ that has <u>chemically combined with water in the atmosphere</u> to form... | Carbonic Acid (H ₂ CO ₃) | Stay Here |
| 2 | You are carbon in the form of CO ₂ that has <u>moved by diffusion into the ocean</u> and stored as... | Carbon dioxide, CO ₂ (dissolved gas) | Ocean |
| 3 | You are carbon in the form of <u>CO₂ taken in by photosynthesis in a fern</u> and stored as... | Glucose (C ₆ H ₁₂ O ₆) | Vegetation |
| 4 | You are carbon in the form of <u>CO₂ that has moved by diffusion into the ocean</u> and stored as... | Carbon dioxide, CO ₂ (dissolved gas) | Ocean |
| 5 | You are carbon in the form of <u>CO₂ taken in by photosynthesis in an ash tree</u> and stored as... | Carbon dioxide (CO ₂) | Vegetation |
| 6 | You are carbon in the form of <u>dietary fiber excreted from a tall ox in a field</u> and enter the ground as... | Organic waste | Ocean |