

Carbon Cycle Flow

| Name of Group | Options for Carbon Flows | Explanation for each Carbon Flow |
|----------------------------|--|--|
| Atmosphere | <ol style="list-style-type: none"> 1. water 2. land plants | <ol style="list-style-type: none"> 1. Carbon dioxide from the atmosphere diffuses and dissolves into water. 2. Carbon is taken up by land plants to perform photosynthesis. |
| Water | <ol style="list-style-type: none"> 1. aquatic plants 2. aquatic animals 3. atmosphere | <ol style="list-style-type: none"> 1. Aquatic plants use carbon dioxide from the water to perform photosynthesis. 2. Some marine organisms take carbon from the water to build their skeletons and shells. 3. Carbon dioxide can diffuse from the water back into the atmosphere. |
| Aquatic Plants | <ol style="list-style-type: none"> 1. water 2. sediments and rocks 3. aquatic animals | <ol style="list-style-type: none"> 1. Cellular respiration and decomposition put carbon back into the water. 2. Carbon from dead plants can be incorporated into sediments. 3. Animals consume aquatic plants and use carbon for energy or store it in their tissues. |
| Aquatic Animals | <ol style="list-style-type: none"> 1. water 2. sediments and rocks | <ol style="list-style-type: none"> 1. Respiration and decomposition put carbon back into the water. 2. Carbon from dead animals can be incorporated into sediments on the ocean floor and can eventually become sedimentary and metamorphic rocks. |
| Sediments and Rocks | <ol style="list-style-type: none"> 1. water 2. volcano to atmosphere | <ol style="list-style-type: none"> 1. Weathering and erosion of rocks deposits carbon in rivers and oceans. 2. Volcanic eruptions spew carbon-containing gases into the atmosphere. |
| Land Plants | <ol style="list-style-type: none"> 1. atmosphere 2. sediments and rocks 3. land animals | <ol style="list-style-type: none"> 1. Cellular respiration and decomposition put carbon back into the atmosphere. 2. Carbon from dead trees can be buried and incorporated into sediments. 3. Plants are consumed by animals that use carbon for energy or store it in their tissues. |
| Land Animals | <ol style="list-style-type: none"> 1. atmosphere 2. sediments and rocks | <ol style="list-style-type: none"> 1. Respiration and the decomposition of dead animals put carbon back into the atmosphere. 2. Carbon from dead animals can be buried and incorporated into sediments. |