

ATMOSPHERE

You are in a molecule of carbon dioxide

Inorganic Carbon



When you arrive
at this location,
put a tally mark
in the
Atmosphere Pool



1-3

4-6

Remain in the atmosphere

- Stay at the atmosphere location
- Put another tally mark in the atmosphere pool
- You are inorganic carbon, so do not pick up a twist tie
- Roll again



Photosynthesis

- Sunlight is transformed into chemical energy in your bonds. Take one energy twist-tie from the sunlight pile
- Go to the producer location and follow the directions there



PRODUCER

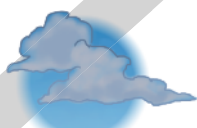
You are in a sugar molecule in a plant

Organic Carbon



Cellular Respiration

- Chemical energy in your bonds is transformed into heat. Leave your twist-tie in the heat pile
- Go to the atmosphere location and follow the directions there



Death

- Go to the soil organic carbon pool and follow the directions there
- You still have chemical energy in your bonds. Keep your twist-tie



Biosynthesis

You become part of the producer.

- Put another tally mark in the producer pool
- You still have chemical energy in your bonds. Keep your twist-tie
- Roll again



You Got Eaten

- Go to the herbivore pool and follow the directions there
- You still have chemical energy in your bonds. Keep your twist-tie



When you arrive at this location, put a tally mark in the Producer Pool

Roll
your
die

1-2

3-6

Roll
your
die

1-3

4-6

HERBIVORE

You are in a food molecule in an herbivore's stomach

Organic Carbon

When you arrive at this location, put a tally mark in the Herbivore Pool

Roll
your
die

1-3

4-5

6

Digestion/ Biosynthesis

You become part of the herbivore's body.

- Put another tally mark in the herbivore pool
- You still have chemical energy in your bonds. Keep your twist-tie
- Roll again

Defecation

You were in a carbon molecule that was not digestible.

- Go to the soil organic pool and follow the directions there
- You still have chemical energy in your bonds. Keep your twist-tie

Cellular Respiration

- Chemical energy in your bonds is transformed into heat. Leave your twist-tie in the heat pile
- Go to the atmosphere location and follow the directions there

Roll
your
die

1-3

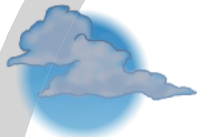
4-6

Death

- Go to the soil organic carbon pool and follow the directions there
- You still have chemical energy in your bonds. Keep your twist-tie

You Got Eaten

- Go to the carnivore pool and follow the directions there
- You still have chemical energy in your bonds. Keep your twist-tie



CARNIVORE

You are in a food molecule in a carnivore's stomach

Organic Carbon



Cellular Respiration

- Chemical energy in your bonds is transformed into heat. Leave your twist-tie in the heat pile
- Go to the atmosphere location and follow the directions there



Digestion/Biosynthesis

You become part of the carnivore's body.

- Put another tally mark in the carnivore pool
- After growing and living for a while, the carnivore dies
- Go to the soil organic carbon pool and follow the directions there
- You still have chemical energy in your bonds. Keep your twist-tie



When you arrive at this location, put a tally mark in the Carnivore Pool

Roll
your
die

1-3

4-5

6

Defecation

You were in a carbon molecule that was not digestible.

- Go to the soil organic pool and follow the directions there
- You still have chemical energy in your bonds. Keep your twist-tie

SOIL ORGANIC CARBON LOCATION

When you arrive at this location, put a tally mark in the Soil Organic Pool

Roll your die

1-3

4-5

6

Cellular Respiration

- While you are in soil, a decomposer eats you.
- Chemical energy in your bonds is transformed into heat. Leave your twist-tie in the heat pile
- Go to the atmosphere location and follow the directions there

Digestion/ Biosynthesis

You become part of a decomposer.

- Put another tally mark in the soil organic carbon pool
- You are eaten and digested by a decomposer and become part of it's body.
- After growing and living for a while, the decomposer dies.
- You still have chemical energy in your bonds. Keep your twist-tie

Remain Undecayed

You are in a molecule that is tough to decay.

- Put another tally mark in the soil organic carbon pool
- You still have chemical energy in your bonds. Keep your twist-tie
- Roll again

