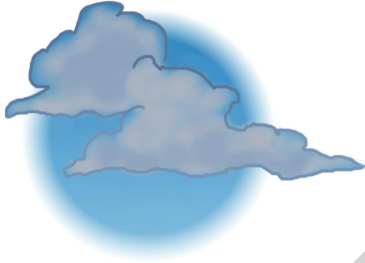


ATMOSPHERE

You are in a molecule of carbon dioxide.

Inorganic Carbon



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

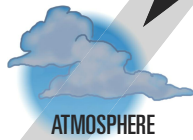


1-3

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



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

Roll your die

1-2

3-6

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.



ATMOSPHERE

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.



PRODUCER

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.



SOIL ORGANIC CARBON

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.



HERBIVORE

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.



HERBIVORE

Defecation

You were in a carbon molecule that was not digestible.

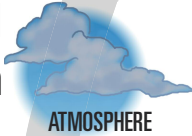
- Go to the soil organic pool and follow the directions there.
- You still have chemical energy in your bonds. **Keep** your twist-tie.



SOIL ORGANIC CARBON

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.



ATMOSPHERE

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.



SOIL ORGANIC CARBON

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

CARNIVORE

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

Organic Carbon



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

Roll your die

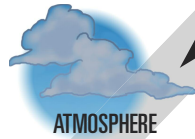
1-3

4-5

6

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.



Defecation

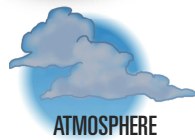
You were in a carbon molecule that was not digestible.

- 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.



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 its body.
- After growing and living for a while, the decomposer dies.
- You still have chemical energy in your bonds. **Keep** your twist-tie.
- Roll again.



1-3

4-5

6

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.

