

Carbon Cycle Loop

Follow carbon through living things.

4.12 "Organisms and environments. The student describes patterns, cycles, systems, and relationships within environments. The student is expected to: investigate and explain how most producers can make their own food using sunlight, water..."

NAME _____

DATE _____

1 LABEL THE MODEL _____ Word bank below

Write one process from the word bank in each numbered box. Follow the arrows around the loop.

WORD BANK

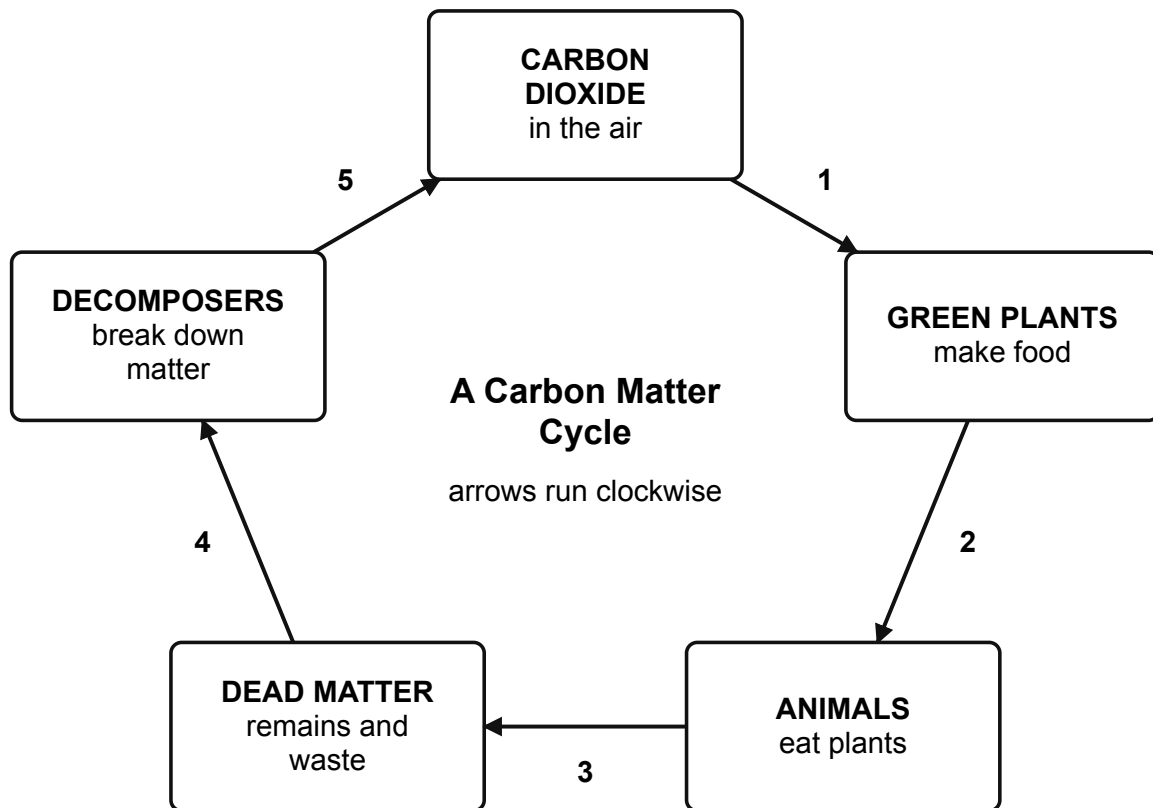
death and waste

decomposition

eating

photosynthesis

respiration



Arrow numbers match the response boxes on the next student section.

Label the arrows

Use the word bank to write the process for each numbered arrow.

Arrow 1

Arrow 2

Arrow 3

Arrow 4

Arrow 5

2 RUN THE MODEL _____ Use your finished diagram

1 Which process uses sunlight to move carbon dioxide from the air into green plants?

2 What stage comes after ANIMALS in the completed model?

3 Which process returns carbon dioxide to the air?

3

CHECK IT

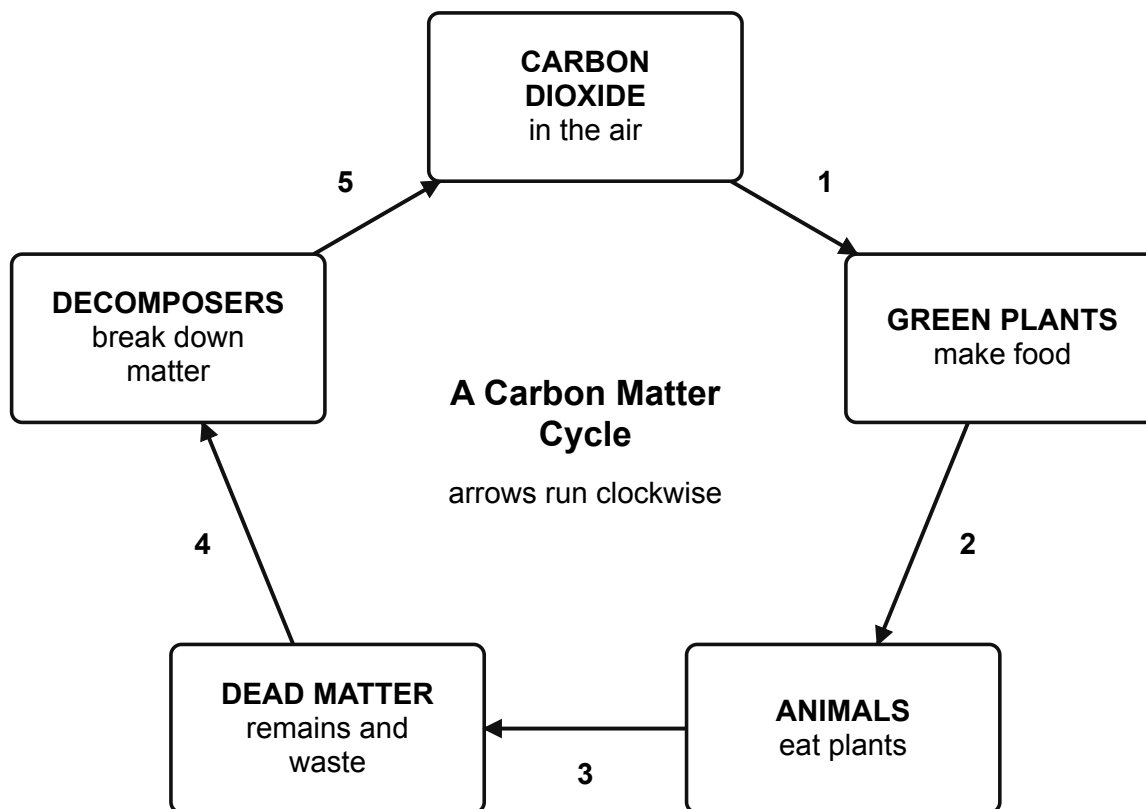
Before you turn it in

- ☐ I wrote one process in each box.
- ☐ I followed every arrow in order.
- ☐ I checked that the loop ends where it starts.

TEST THE MODEL

What is one part of the real carbon cycle that this model leaves out?

PART 1 • COMPLETED MODEL

**Arrow 1**

photosynthesis

Arrow 2

eating

Arrow 3

death and waste

Arrow 4

decomposition

Arrow 5

respiration

PART 2 • RUN THE MODEL

1. **photosynthesis** (Which process uses sunlight to move carbon dioxide from the air into green plants?)
2. **DEAD MATTER** (What stage comes after ANIMALS in the completed model?)
3. **respiration** (Which process returns carbon dioxide to the air?)

TEST THE MODEL (SAMPLE ANSWERS)

- It leaves out carbon dioxide released when plants and animals respire.
- It leaves out sunlight and water used in photosynthesis.

Process order is photosynthesis, eating, death and waste, decomposition, and respiration. Dead matter includes remains and waste, and the model simplifies other ways carbon can move through the system.