



From *Education
in Chemistry*
rsc.li/2P939Rc



The carbon cycle

eic



Starter questions



1. What different forms of carbon have you heard of before?
2.
 - a. Define the words 'respiration' and 'photosynthesis'.
 - b. Write the word equations for these processes.
 - c. What links them together?
3. What role does carbon dioxide play in our atmosphere?



The carbon cycle

You will pretend to be a carbon atom moving through the carbon cycle.

There are five stations around the room:

THE ATMOSPHERE

ANIMALS

A PLANT

FOSSIL FUELS

THE SEA



The carbon cycle

- At each station you must flip two coins.
- Then follow the instructions depending on what combination of heads (H) or tails (T) you get:
HH = 2 heads
TT = 2 tails
HT = 1 heads/1 tails
- Take your carbon cycle passport with you and record your journey!



Make your own diagram

- Now use the notes of your travels from your passport to produce a diagram of the carbon cycle.
- Make sure to mark the different stations you travelled to and how you got there.



Discussion

1. Which stage did you go to most often?
2. Who was 'locked up'? What were the carbon reservoirs?
3. How many times did you enter the atmosphere? How many processes led to the atmosphere, and how many led away from it?
4. Which processes are natural? Which are human-led?
5. What was the approximate timescale of each process?