

Introduce challenge: Creating a bottle ecosystem.

Hook and Collect : <https://goo.gl/rqY2Wh>

Draw the food chain from the 'Circle of life' speech in The Lion King.

Order: peer review the food chains, how do they compare? Discuss how food chains are created and write 3 rules for drawing a food chain.

Make Meaning: How do Lions become soil? Introduction of carbon cycle; respiration versus photosynthesis. Draw the global carbon cycle from the information gathered.

Model: draw the Carbon cycle (homework) using research from web searches.

Reflect: Start of next lesson

Hook: Is global warming FAKE NEWS? Discussion of tweets from Trump RE: Global warming and China conspiracy

Collect: Using websites: <https://climate.nasa.gov/vital-signs/carbon-dioxide/>
<http://www.drroyspencer.com/global-warming-101/> (2 groups)

Students write down 10 most important pieces of information on global warming from opposite perspectives.

Order: In a Venn diagram, place pieces of information which are opposites and both parties agree on.

Making meaning: complete worksheet from slide outlining any information which seems to have a lack of triangulation.

Modelling: who is right? Create an investigation which shows whether an atmosphere high in CO₂ experiences an increase in overall temperature.

Reflect: discussion and reflection of accuracy of model. Does your experiment conclude the argument? Which website do your results most support?

Suggested experiment: use sodium bicarb and vinegar to create carbon dioxide and collect it in a conical flask using the displacement method. Add a pocket lab to the flask and seal off.

Monitor the temperature change in direct sunlight to see if there is a difference. Alternatively, a table lamp with a traditional 'non energy saving' bulb works well as the heat source if it's raining or cloudy outside.

Portfolio Presentation 1:

Create a 5 slide presentation which explores how climate change might affect Agriculture in your area.