Using the interactive diagram at: <https://www.sciencelearn.org.nz/image_maps/3-carbon-cycle> answer the following questions.

**Stores:**

1. Write down how much carbon is held in each of the following stores.

Atmosphere:

Vegetation:

Soil & Organic matter:

Coal, oil, gas:

Sediments and sedimentary rock:

Ocean Surfaces:

Deep ocean:

1. What kind of rock does calcium carbonate turn into on the seafloor ?
2. Which stores do you think Carbon stay in for the **shortest amount of time?** Be sure to explain **Why** you think this.
3. Which stores do you think Carbon stay in for the **longest amount of time?** Be sure to explain **Why** you think this.
4. 18% of your body weight is carbon. Which ‘store’ is this carbon considered to be held in?

**Processes**

1. Which 2 processes take carbon out of the atmosphere?
2. Which 5 processes put carbon into the atmosphere?
3. Carbon dioxide exchange: What happens to CO2  when it enters the ocean?
4. How does Carbon make its way to the sea floor?
5. What type of organisms are responsible for the process of “decay”?
6. What process do animals get their energy from? What is the nutrient that is needed in this process?

1. What 3 things do plants need in order to convert atmospheric CO­2 into carbohydrates?

**Student understanding**

1. What Carbon **Stores** do we as humans influence?
2. What human activities contribute to the **processes** of the carbon cycle? (how do humans affect the ‘natural’ processes of the carbon cycle?)
3. What types of things can you do to reduce your carbon foot print?