

The Natural Carbon Balance & Causes of Climate Change

Your team of experts will gather in-depth information on the carbon cycle and the causes of climate change. The information you gather on these topics will be vital for the group discussion that will take place toward the end of your visit to the Museum, which will focus on:

"What evidence can be used to guide decisions related to climate change?"

Answers to this worksheet can be found in the *Natural Carbon Balance* and *Causes of Change* stations.

The Natural Carbon Balance

1. What are the 4 main parts (or "spheres") that make up the carbon cycle?
 - a.
 - b.
 - c.
 - d.

2. Use the arrows connecting the different spheres of the carbon cycle to identify 4 of the natural processes that are involved in converting carbon from one form to another to restore balance to the carbon cycle.
 - a.
 - b.
 - c.
 - d.

3. What is the main human impact on the natural carbon cycle?
(HINT: Look for the red arrow on the back of the panel!)

4. If CO_2 can be absorbed by ocean uptake and photosynthesis, then why should we worry if we keep producing more CO_2 ?

Causes of Change

5. What are 6 major natural causes of climate change? Each team member should be able to describe at least one of the natural causes in depth.

a.

b.

c.

d.

e.

f.

6. Define what an "amplifier" is and give an example of an amplifier that affects climate change.

Definition:

Example:

Reducing Other Greenhouse Gases (around the corner)

7. What are the three leading sources of human-produced greenhouse gases?

a.

b.

c.

8. Examine the exhibit with Bessy the Cow.

a. What greenhouse gas is Bessy most responsible for producing?

b. Describe one way to reduce the concentration of this other greenhouse gas.

OVER→