**Mstep review and practice**  Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hr\_\_

**MSTEP online practice test**: Open the **EDGE** browser. Right click on the link below. Right click sample item sets. Right click grade 11. Right click science. Right click the sign in button.

<https://wbte.drcedirect.com/MI/portals/mi/ott1?index=1&adminId=523977&displayOTT=M-STEP+-+OTTS&display=M-STEP>

**Directions:** I would like you to become familiar with how to navigate the mstep test, become familiar with the tools available and how to use them (look at the periodic table), become familiar with the type of questions asked and the different methods used to answer the questions (they aren’t all multiple choice!).

**Answer the questions** as you work through the test then place your answers below so we can go over the answers:

1) Scientists can use the carbon cycle models …. Identify all the processes that would decrease CO2 in the atmosphere if the rates of these processes were to increase.

A) photosynthesis B) cellular respiration C) fossil fuel combustion D) diffusion into the ocean

E) diffusion into the atmosphere

2) The data show that atmospheric CO2 concentrations have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ over time. This pattern is most likely due to the process of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3) Based on the graph, which statement best explains the difference in the temperature pattern between the substances: A) water absorbs and stores more energy than soil B) Soil absorbs and stores more energy than water

C) The same amount of energy changes the temperature of soil less than it changes the temperature of water

D) The same amount of energy changes the temperature soil more than it changes the temperature of water.

4) Complete the statement that best uses evidence from the investigation to support the explanation chosen in Part A.

The water had \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ increase in temperature when the heat lamp was on. The water had \_\_\_\_

Decrease in temperature when the heat lamp was turned off.

5) Modification: (write it out)

Reasoning:

6) Global Map: Net change in solar radiation absorption

What color did you pick? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7) Top Box: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Right Box:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Bottom: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Left: \_\_\_\_\_\_\_

8) Part B. Use the model in part A …

The model shows a cycle of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sea ice due to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In the atmosphere. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in sea ice prevents \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from

accessing their prey, therefore the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will die off.