**Forest Carbon Cycling**

Sketch the basic carbon cycle and label the four main reservoirs:

Define the following terms

**Biosphere**:

**Gross Primary Productivity**:

**Anthropogenic fossil fuel emissions**:

**Carbon sink**:

**Short Answer questions**:

What is the carbon cycle?

How much carbon is stored in terrestrial systems?

How much does this offset the fossil fuel emissions?

How will the earth’s forests influence the course of climate change?

**Diagram activity**

Your group’s diagram: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sketch your basic diagram including (at a minimum): GPP, ANPP, Reco

What is your diagram’s GPP?

**Find four other diagrams and list their GPP**

Diagram 1

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ GPP:\_\_\_\_\_\_\_\_\_\_\_

Diagram 2

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ GPP:\_\_\_\_\_\_\_\_\_\_\_

Diagram 3

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ GPP:\_\_\_\_\_\_\_\_\_\_\_

Diagram 4

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ GPP:\_\_\_\_\_\_\_\_\_\_\_

**Discussion**: Answer the following in paragraph form

What conclusions can you draw about GPP in different biomes? Do you notice any differences in GPP between young and mature biomes? What about any other variables?