Name _____ Date _____ Period _____

LAB: Biome Poster

H O N O R S B I O L O G Y : U N I T 9

What is a biome? Biomes are very large ecological areas on the earth's surface, with fauna and flora (animals and plants) adapting to their environment. Biomes are often defined by abiotic factors such as climate, relief, geology, soils and vegetation. A biome is NOT an ecosystem, although in a way it can look like a massive ecosystem. If you take a closer look, you will notice that plants or animals in any of the biomes have special adaptations that make it possible for them to exist in that area. You may find many units of ecosystems within one biome.

There are five major categories of biomes on earth. In these five, there are many sub-biomes, under which are many more well defined ecosystems.

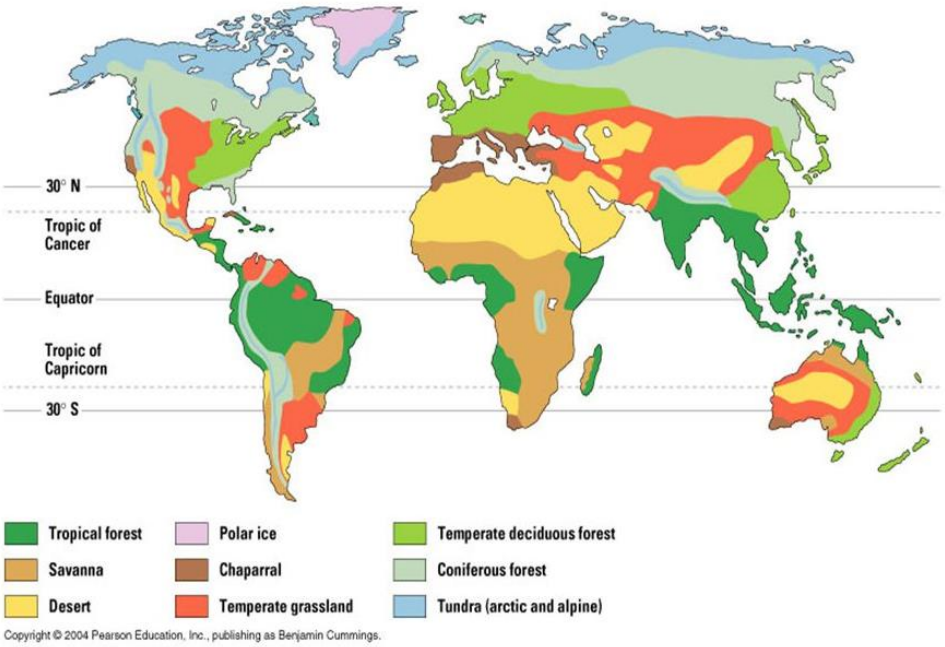
The Desert Biomes: They are the Hot and Dry Deserts, Semi-Arid Deserts, Coastal Deserts and Cold Deserts.

The Aquatic Biomes: Aquatic biomes are grouped into two, Freshwater Biomes (lakes and ponds, rivers and streams, wetlands) and Marine Biomes (oceans, coral reefs and estuaries).

The Forest Biomes: There are three main biomes that make up Forest Biomes. These are the Tropical Rainforest, Temperate and Boreal Forests (also called the Taiga)

The Grassland Biomes: There are two main types of grassland biomes: the Savanna Grasslands and the Temperate Grasslands.

The Tundra Biomes: There are two major tundra biomes—The Arctic Tundra and the Alpine Tundra.



Biomes play a crucial role in sustaining life on earth. For example, the Aquatic biome is home to millions of fish species and the source of the water cycle. It also plays a very important role in climate formation. The terrestrial biomes provide foods, enrich the air with oxygen and absorb carbon dioxide and other bad gases from the air. They also help regulate climate and so on.
From http://eschooltoday.com/ecosystems/what-is-a-biome.html

MATERIALS:

- Newsprint (18"x 24")
- Colored pencils/markers
- Ruler
- Textbook

PROCEDURE:

1. Students will work in groups of 3.
2. Investigate some of the World's biomes before deciding on which one to research.
3. Once you have made your choice, discover its unique **abiotic** and **biotic factors**.
4. Create a **visual poster** and include the following information:
    - Group names (first and last), period number, and date
    - Identify the **biome** you selected
    - Locate the biome's **geographic location** on a world map, including a list of countries it covers
    - Include the following **abiotic factors:**
        1) A **climatogram** of your selected biome (you can find in textbook)
        2) **Soil type** or types
        3) **Latitude** you will typically find this biome
        4) **Altitude** or elevation you will typically find this biome
        5) Other abiotic distinctions (i.e. amount of sunlight)
    - Include the following **biotic factors:**
        1) Specific plants and animals at all trophic levels
        2) Illustrate one **food chain** from your biome
        3) Include at least one **keystone species** found in your biome
        4) Discuss the **adaptations** of both its plants and animals in their environment
        5) Discuss any pressing **environmental issues** which affect your biome
            - What are current problems?
            - Have any past problems been addressed?
            - Who, how, and when did they solve them?