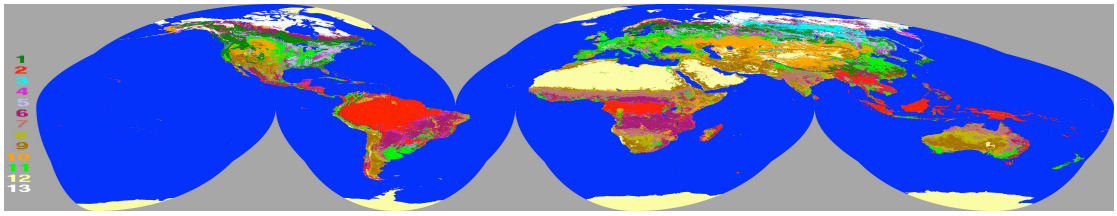
BIOME PROJECT



Objective:

This project is designed for you to begin integrating your knowledge of biology, ecology, and geography. In a small group (maximum of three), you will research and present one of Earth's biomes including an in-depth look at the climate and organisms of this area. You will also begin to explore the ideas of conservation and how human interactions can affect the delicate balance of ecosystems within a biome.

Introduction:

Biome (BY-ome)- A major type of ecosystem with distinctive temperature, rainfall, and organisms. It is often described by the dominant plant species in the area.

The **terrestrial** ecosystems of Earth are divided into eight major biomes:

- *Characterized by a lack of water*: Desert and Tundra
- *Forest biomes*: Coniferous forest, Deciduous Forest, and Rain Forest
- *Grassland biomes*: Steppe, Prairie, and Savannah

The **aquatic ecosystems** of Earth are divided into five major biomes:

- *Freshwater:* Standing Water (lakes, ponds, marshes, swamps, bogs) Flowing Water (streams, rivers)
- *Saltwater:* World Ocean, Neritic Zone (region between continental shelf and low tide mark),
- Intertidal Zone (region between high tide and low tide)

Choose your biome and sign-up with your teacher. Be as specific as possible in your choice. For example, don't simply choose "rain forest" - choose a particular rain forest such as the Brazilian forest or the Indonesian rain forest.

Project Description:

Your final product will be presented in class on an assigned date within approximately 10-15 minutes. You are responsible for teaching the rest of the class about your biome using a highly professional poster OR a power point presentation; both of which must be accompanied by a one page handout that summarizes the key points of the presentation.

Please include (at least, you are not limited to) the following key components:

1. Indicate where your biome is.

2. Describe the climate of the biome in very specific terms using charts and graphs. In doing so, use the term "abiotic factors".

3. Describe in detail the most common plant species of the biome. Explain how these plants are well adapted to their environment. In doing so, use the following terms: pioneer species, climax community, & succession.

4. Describe in detail the most common animals in the biome. Describe how each animal is well adapted to its environment. In doing so, use the following terms: habitat, niche, consumer, population, & community

5. What organisms fulfill the decomposer role in your biome?

6. Construct a rudimentary food web indicating key predator-prey interactions and trophic levels between the plants and animals of your biome.

7. Investigate the human populations living in your biome. Describe any modern or aboriginal populations living in the biome. What resources are they extracting from the biome? Is there any environmental damage being done?

8. Discuss one current biological/environmental issue of the biome in detail. What is happening and is there any plan to stop or slow down the damage. Describe any environmental agencies (local groups in that country, or foreign NGOs) that are involved in trying to protect the indigenous organisms.

Evaluation Criteria:

Givens: All written text must have perfect grammar and spelling. No plagiarized content. Neat.

Presentation:

Content [60]

- Accuracy of information
- Depth of understanding
- Clarity of explanations.
- Organization of material (Beginning, Middle, End)
- Level of learning attempted

Appropriate utilization of power point or poster [20]

- Minimal amount of text/brevity of text used.
- Supporting images used correctly at correct time.
- Appropriate quantity of slides
- Use of colour & visuals
- Use of other effects

Skill in presentation [10]

- Voice
- Appropriate posturing
- Speed of presentation
- Use of eye contact
- Within time limits
- Use of supporting visuals
- Cue cards, research notes, script?

Handout: **[10]**

- Covers the key components of the presentation
- Includes the food web
- Includes the bibliography

Potential Presentation Programs

Prezi

Multilayered non-linear whiteboard presentation software. Real-time collaboration.

sliderocket

Non-linear presentation software. Can embed images and video. iPhone, iPad supported.

Glogster poster yourself

Create and publish multimedia posters. Optional secure education platform

Presentation Tips:

- First slide is a title page, The title must be large, clear, and legible
- Table of contents links directly with at least three other slides
- Presentation is unified, all slides related to main topic, slides flow in a logical order, supporting information with a beginning, middle and end
- Background and graphics are appropriate for subject and consistent
- Proper spelling and grammar
- Any transition effects are used appropriately and consistently and do not distract from the content.

Poster tips:

- Poster must be large and on a proper poster board so it can stand up on its own. Using two full folding poster boards is recommended.

- Font size 20 or larger is recommended. All typing must be legible from 1-1.5 metres away. There should be no handwriting on the poster. The title must be large, clear, and legible from 3-4 metres away. Information must be divided up into "chunks" and each section must have a clear title.

- All sections should have a coloured border around them – choose colours that are significant. For example – the section on plant life could be green and the section on environmental damage could be red.

- Avoid random graphics on the poster. Add pictures of plants, animals, geography, people, tables & graphs. These pictures must be placed next to or visually connected to some brief writing/title somehow.

My group presentation date is: _____

My group member's names, phone numbers & email:

Name	Phone	email