

# Biomes "Survivor" Research Project

## Information Sheet

A *biome* is a region that can be identified by characteristic flora and fauna (plants and animals). The distribution patterns are strongly correlated with climate patterns and other abiotic factors. The environment of these organisms consists of both abiotic and biotic factors. *Abiotic factors* include physical characteristics, such as temperature, weather, and altitude. *Biotic factors* include other organisms in the environment and the food supply. There are two main types of biomes: land biomes and aquatic biomes.

## Task:

You will be working in small groups. You and your group were flying in a plane, when suddenly the engine goes out! Luckily you keep calm as the plane goes spinning out of control. You eject just minutes before the plane goes crashing down and bursts into a ball of flame. You have no idea where you are, but thanks to science class, you are able to recognize your surroundings as one of the world's biomes. You manage to survive three years before you are rescued by a group of travelers who come across your shelter. National Geographic hears about your amazing survival skills and offers you 50,000 dollars to create a NatGeo special educating the public on how to survive in that biome.

Your team will work together to create this survival special. Your main objective is to explain how life would be if you were to live in a biome such as the arctic tundra or the tropical rainforest. How would you survive? What would you eat? Where would you live? What would you see?

To obtain your goal, each team will complete the attached information packet. Students must list at least three sources, one of which is the textbook. Upon completion of the information packet, each group will create a visual presentation of their life in the biome. Students will also give an oral presentation to the class.

## Biome Project Assessment Checklist

Your power point presentation should include all of the following criteria:

- Map of world showing all areas where your biome is located.
- Explain climate characteristics (temperature range, rainfall, etc.)
- Examples of animals and plants (the *biodiversity*) found in your biome with pictures.
- Geography (explain what the landscape is like, soil quality, etc.)
- Other unique factors about your biome.
- Show how the living conditions would be if you were to live in this biome
- Explain how you were able to survive using the resources that were available
  - What did you eat?
  - How did you find water?
  - What did your shelter look like? (Include pictures – I can scan drawings for you if you need me to.)

Biomes “*Survivor*” Research Project  
List of Biomes and Websites

**Biomes:** Tundra, Tropical Rainforest, Grassland, Temperate Forest (Deciduous Forest), Taiga (Evergreen Coniferous Forest, Boreal), Desert, Freshwater, Marine, Savanna & Alpine

**Useful Websites**

**The World’s Biomes**

<http://www.ucmp.berkeley.edu/glossary/gloss5/biome/>

**Tour of Biomes**

<http://www.cotf.edu/ete/modules/msef/earthsysflr/biomes.html>

**Rainforest**

<http://www.rain-tree.com>

<http://www.snowcrest.net/geography/slides/biomes/index.html>

<http://www.ucmp.berkeley.edu/glossary/gloss5/biome/forests.html#tropical>

<http://www.ups.edu/biology/museum/worldbiomes.html>

**Temperate Deciduous Forest**

[http://www.needham.mec.edu/nps\\_web\\_docs/high\\_school/cur/Bio96\\_97/P5/forest/Forest.html](http://www.needham.mec.edu/nps_web_docs/high_school/cur/Bio96_97/P5/forest/Forest.html)

<http://www.snowcrest.net/geography/slides/biomes/index.html>

<http://www.ucmp.berkeley.edu/glossary/gloss5/biome/forests.html#temperate>

<http://www.ups.edu/biology/museum/worldbiomes.html>

**Taiga (Evergreen Coniferous Forest, Boreal Forest)**

<http://www.snowcrest.net/geography/slides/biomes/index.html>

<http://www.mobot.org/MBGnet/sets/taiga/body.htm>

<http://www.ups.edu/biology/museum/worldbiomes.html>

**Grassland**

<http://www.snowcrest.net/geography/slides/biomes/index.html>

<http://www.ucmp.berkeley.edu/glossary/gloss5/biome/grasslan.html>

<http://www.ups.edu/biology/museum/worldbiomes.html>

**Desert**

<http://www.snowcrest.net/geography/slides/biomes/index.html>

<http://www.ucmp.berkeley.edu/glossary/gloss5/biome/deserts.html>

<http://www.ups.edu/biology/museum/worldbiomes.html>

**Tundra**

<http://www.snowcrest.net/geography/slides/biomes/index.html>

<http://www.ucmp.berkeley.edu/glossary/gloss5/biome/tundra.html>

<http://www.ups.edu/biology/museum/worldbiomes.html>

**Wetlands**

[http://www.jlhs.nhusd.k12.ca.us/Classes/Science/Net\\_Lessons/Biomes/wetlands.html](http://www.jlhs.nhusd.k12.ca.us/Classes/Science/Net_Lessons/Biomes/wetlands.html)

<http://www.epa.gov/OWOW/wetlands/contents.html>

**Biome Map**

<http://cissus.mobot.org/MBGnet/biome/map.htm>

<http://www.snowcrest.net/geography/slides/biomes/index.html>

**ALL LINKS WILL BE ON GOOGLE CLASSROOM**

Biomes "Survivor" Research Project: Activity Sheet

**Biome:** \_\_\_\_\_

**Names of Group Members:** \_\_\_\_\_

**Remember that you need at least three sources, so be sure to write down where you found your information in question number 10.**

1. List 7-10 animals (fauna) that are common in this biome. Find a variety of animals that fill different roles within this biome.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

2. List 7-10 types of plant life (flora) common to this biome.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

3. Describe the physical conditions in this biome (climate, temperature range, weather, and rainfall).

4. Determine where the biome is located.

5. Define biotic and abiotic factors. List the biotic factors and the abiotic factors in this biome.

6. From your list of 7-10 common animals in the biome, describe how one animal is uniquely adapted to this biome.

7. Describe how one plant is uniquely adapted to this biome.

8. Describe what you would see, hear, smell, touch, and taste. Would you be happy living in this biome? Why or why not? Support your answer.

9. Complete the food chain specifically for your biome.

SUN → \_\_\_\_\_ → \_\_\_\_\_ → YOU

10. Cite three references where you found your materials. Your textbook must be one of your resources.

## Teacher Assessment

### Biome Project Assessment Criteria

Did the team:

1. Show a map of world showing all areas where the biome is located  
(5 points)
2. Show unique climate characteristics (temperature range, rainfall, etc.)  
(5 points)
3. Show examples of animals and plants  
(5 points)
4. Explain the unique geography (land dynamics, soil quality, etc.)  
(5 points)
5. Reveal other unique factors about their biome  
(5 points)
6. Explain how the living conditions would be if you were to live in this biome  
(5 points)
7. Turn in their 10-question Activity Sheet  
(15 points)
8. Present their material thoroughly and creatively  
(5 points)
9. Active participation from each team member  
(5 points)
10. Presentation- neat, colourful and well-displayed. Poster, presentation or other.  
(10 points)

Total Project Points =      /65

Biomes "Survivor" Research Project  
Assessment: Student Copy

Please respond to the following four questions – *be specific*:

- I learned ...
- I was surprised ...
- I discovered ...
- I wonder ...

Additionally, please rate your team members in terms of participation on a scale of 1-5; 5 being the highest possible score and 1 being the lowest possible score.

Team Members Name			
Actively contributed towards group assignment			
Worked well with other team members			
Actively contributed towards the presentation (or offered ideas for the presentation)			