Adaptive Radiation Project

**Step 1:**

**Research and organism (plant or animal) in an environment which it currently lives.**

1. Identify the traits of your organism.
2. Identify the characteristics of the environment that your organism currently lives.

**Step 2:**

**Select two environments or niches that are different than the current one that it is occupying.**

1. What are the characteristics of each habitat or niche?

**Step 3:**

**Trait Variations:**

1. Identify how the various traits of your organism would be selected for based on the environment or niche that they occupy (These should be realistic and should be variations on the traits that already exist for your organism). You must make changes to at least 5 traits.
2. Note how the variation of the trait is beneficial for each environment.

**Step 4:**

**Discussion Questions**

**Step 5:**

Create a **visual representation** to show your organism in each environment.

**Step 1:**

**My organism is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it lives \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

|  |  |
| --- | --- |
|  | **Source for my Organism** |
| **Food/Nutrients** |  |
| **Water** |  |
| **Shelter** |  |
| **Space** |  |
| **Climate** |  |

**Animal Traits**

|  |  |  |  |
| --- | --- | --- | --- |
| **Head (eyes, neck, nose, beak, ears?)** |  |  |  |
| **Hands/Feet (claws, size, function?)** |  |  |  |
| **Chest (lungs, back, ribs?)** |  |  |  |
| **Skin (smooth, rough, fur, colour?)** |  |  |  |
| **Behaviours** |  |  |  |
| **Other** |  |  |  |

**My organism is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it lives \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

|  |  |
| --- | --- |
|  | **Source for my Organism** |
| **Food/Nutrients** |  |
| **Water** |  |
| **Shelter** |  |
| **Space** |  |
| **Climate** |  |

**Plant Traits**

|  |  |
| --- | --- |
| **Root System** |  |
| **Stem** |  |
| **Leaves** |  |
| **Colour** |  |
| **Flower** |  |
| **Other** |  |

**Step 2:**

**Habitat/Niche 1 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
|  | **Source for my Organism** |
| **Food/Nutrients** |  |
| **Water** |  |
| **Shelter** |  |
| **Space** |  |
| **Climate** |  |

**Habitat/Niche 2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
|  | **Source for my Organism** |
| **Food/Nutrients** |  |
| **Water** |  |
| **Shelter** |  |
| **Space** |  |
| **Climate** |  |

**Step 3:**

**Note how each variation of the trait is beneficial in the environment.**

|  |  |  |
| --- | --- | --- |
| **Trait** | **Variation for Environment 1** | **Variation for Environment 2** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Step 4:**

**Discussion Questions:**

1. Explain the process that led to the adaptive radiation of your organism (choose something realistic).
2. Explain how natural selection occurred differently in each environment.