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Kindgom Plantae Lab

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**Station Three**

Yummy Plant Parts

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| **Plant Part** | **Function** | **Examples** |
| Roots | Absorption of water and inorganic nutrients, anchoring of the plant body to the ground and supporting it, storage of food and nutrients and vegetative reproduction and competition with other plants. | Cassava, sweet potato, beet, carrot, rutabaga, turnip,parsnip, yam and horse radish, |
| Stems | Support for and the elevation of leaves, flowers and fruits, keeps the leaves in the light and provide a place for the plant to keep its flowers and fruits, transport of fluids between the roots and the shoots in the xylem and phloem. | Broccoli, sweet potato, cauliflower, celery, kohlrabi, rhubarb, asparagus, bamboo, and sugar cane. |
| Leaves | Convert the energy in sunlight into chemical energy that the plant can use as food. | Fur needles, pine needles, oak leaves |
| Flowers/Fruit | The primary purpose of a flower is reproduction. | Daises, roses, and petunias, |
| Seeds/Spores | Nourishment of the embryo, dispersal to a new location, and dormancy during unfavorable conditions. | Sunflower seeds, legumes, peas, and soy beans. |

**Station Four**

1. What is the function of a leaf?
   1. To convert the energy in sunlight into chemical energy that the plant can use as food.
2. What structures contribute to its function?
   1. Mainy chloroplast
3. How do leaves differ? Do they all have the same function?
   1. Leaves differ in shape, color and size, and they all have the same function.

**Leaf Structure: Label each part and list the function**

1. Waxy cuticle- protects against water loss
2. Upper epidermis- also protects against excessive water loss
3. Bundle sheath cell- site of the calvin cycle
4. Xylem- upwards water transport
5. Phloem- transports sugar
6. Lower epidermis- also helps prevent water loss
7. Spongy mesophyll cells-facilitate air circulation
8. Guard cell- help regulate the rate of transpiration
9. Stoma- facilitates photosynthesis
10. Cuticle- barrier against water

**Stomata Structure: Draw, color, label, and title a picture of a stomata below.**

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