Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**STUDYING GUIDE FOR SCIENCE EVALUATION (SECOND TERM)**

**GENERAL**

**Write the definition of the following terms.**

**Structure: Part of the body.**

**Function: The use of the structure.**

**Adaptation: Changes in the body or behaviour to fit a habitat.**

**PLANTS**

**VASCULAR PLANTS : PARTS,FUNCTIONS, AND ANALOGIES.**

**Complete the following table with the function of each part of vascular plants, and an analogy to explain its function. An example is made for you!**

|  |  |  |
| --- | --- | --- |
| **PART** | **FUNCTION** | **ANALOGY** |
| **Stem** | **Holds the plant and transports the water and the sugar through the Xylem and the Phloem.**  | **The stem is like a highway because it moves people and things from one place to another.** **Also, the stem is like the walls of a building.**  |
| **Leaves** | **Leaves are where plants make photosynthesis producing their food.**  | **The leaves are similar to strongboxes because they get energy and protect it.** **The leaves are similar to a solar panel because they absorb sunlight and transform it into energy.** **The leaves are similar to a kitchen because in them the plant prepares food.**  |
| **Roots**  | **They take water and nutrients from the soil. They anchor the plant in the ground.**  | **The roots are like a vacuum cleaner because they absorb the minerals from the ground.****The roots are like a charger because they are the source of nutrients for the plant.** **The roots are like a straw because they absorb all the nutrients.**  |
| **Flower**  | **The bright colors of the flower attract pollinators, such as bees and birds.**  | **Flowers are like beautiful women who attract men to reproduce.**  |

**Find your Venn diagram about vascular and non-vascular plants and complete the following information.**

**Name two similarities and three differences between vascular and non-vascular plants. An example is made for you!**

|  |  |
| --- | --- |
| **Similarities** | **Differences** |
| **They need water.** **They make photosynthesis.****They need sunlight.** **Both are plants.**  | **Vascular plants have stems. Non vascular plants don’t have stems.** **Vascular plants have roots and leaves. Non vascular plants don´t have roots and leaves.** **Vascular plants grow tall. Non vascular plants don’t grow tall.** **Non vascular plants need to live in shady and damp places. (Dark and humid)** |

***What is the main difference between vascular plants and non-vascular plants, and how does it affect their growth*?**

**Vascular plants have vascular tissues called xylem and phloem. Non vascular plants don’t have vascular tissues for that reason they can´t grow because they don’t have a xylem and a phloem to transport nutrients.**

**ANIMALS**

**Complete the following table. An example is made for you!**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Animal** | **Classification** | **Adaptation (structure)** | **Function** | **Adaptation for movement, breathing, protection or extreme temperatures.**  |
| Tuna  | Fish  | Gills  | Take oxygen from the water for gas exchange.  | Breathing.  |
| Duck | Bird  | Webbed feet  | Swim faster.  | Movement |
| Elephants  | Mammal  | Loose Skin  | Cool off.  | Temperature |
| Eagle | Bird  | Feathers and wings | To fly  | Movement and temperature |
| Cobra Alligator  | Reptile  | Lungs  | Breathe on land  | Breathing  |
| Whale  | Mammal | Blubber under the skin | To keep warm in cold water  | Temperature  |
| Rattle Snake | Reptile | Venom | To protect and decompose the prey.  | Protection |

**Think about an artic fox and an elephant and answer the following questions.**

1. How are the fox´s thick fur and the elephant´s huge ears similar?

They regulate temperature. Thick fur to be warm, huge ears to cool off.

1. To what type of adaptation do these structures belong?

Extreme temperatures.

1. In which way are these structures different?

One is for hot habitats and the other one is for cold habitats.

**Think about a bat and an eagle and answer the following questions.**

1. Do they belong to the same group of vertebrates? Why?

No, the bat is a mammal, the eagle is a bird.

1. Why do these two animals need wings? To fly
2. What are the differences and similarities between their wings?
* Bat´s wings are covered with skin (mammals) and eagle wings are covered with feathers (birds)
* They need wings to fly and catch the prey.
* Bat´s wings are attached to the arms and legs. Eagle´s wings are separated from the legs.