Cells, Microorganisms, & Traits of Living Things Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Review Sheet

**Cell Structures**

**Nucleus** – organelle found in all types of cells. Control center of the cell & contains cell’s dna.

**Cytoplasm** – found in all types of cells

**Cell Wall** – found ONLY in plant cells – adds additional structure and support for the cell

**Chloroplast** – found ONLY in plant cells – makes food for the plant

**Cell Membrane** – Flexible structure that holds all the cell parts and decides what comes in and goes out of the cell.

*Draw & Label a plant cell and an animal cell.*

|  |  |
| --- | --- |
| Animal Cell (include cell membrane, cytoplasm & nucleus) | Plant Cell (include cell wall, cell membrane, cytoplasm, nucleus, & chloroplasts) |
|  |  |

\*Plant cells have chloroplasts to help them make food. Animal cells DO NOT need to make food for themselves because animals have mouths, and can provide food by eating.

\*Cells may only be observed using a microscope.

\*All living things contain cells.

Microorganisms

\*Microorganisms are all around us.

\*Some microorganisms are helpful. Others are harmful.

\*An example of harmful microorganisms would be the bacteria that causes fruit to rot, or bacteria that causes wounds to become infected.

\*Handwashing prevents many diseases by washing away the bacteria.

\*Not all disease is caused by microorganisms. For example, a broken leg or arm is not caused by bacteria, but by an injury.

\*All microorganisms feed and grow and reproduce best in warm, moist environments.

\*Multicellular organisms have types of cells that perform specific functions and must have the help of other cells to survive.

*Sort the following organisms by whether they are helpful or harmful.*

|  |  |
| --- | --- |
| \*e coli \*mold on bread \*spirochete bacteria  \*acidophilus \*bacteria used to make cheese \*methicillin resistant staphylococcus aureus (MRSA)  \*yeast \*bacteria used to make yogurt \*streptococcus (causes strep throat)  \*amoebas | |
| **HELPFUL** | **HARMFUL** |
|  |  |

**LEARNED VS. INHERITED TRAITS**

\*Some traits are inherited by parents’ DNA being passed down to offspring. Other traits are learned or acquired.

\*Genes can best be described as part of the DNA inherited from parents.

*Sort the following traits according to whether they are learned or inherited.*

**Traits of Living Things**

|  |  |
| --- | --- |
| \*blue eyes \*brown hair \*playing chess \*head shape \*curly or straight hair  \*height \*crooked or straight teeth \*speaking English, Spanish, etc. \*flat footedness  \*skate boarding \*dimples \*singing or playing piano well \*skin color | |
| **LEARNED (ACQUIRED)** | **INHERITED** |
|  |  |