

Science Study Guide

Definitions:

- Cell -is the basic unit of structure and function in a living thing
- Inherited trait - characteristic passed from parents to their offspring
- Vacuole- Stores water, nutrients, and waste
- Cytoplasm- gives the cell shape and holds the cell's parts it is also jelly-like
- Recessive trait- a weak trait both have to be there.

Know cell parts, and functions-

| Cell part | Cell function |
|---------------|---|
| Cell membrane | Surrounds the cell and controls what leaves and enters the gate. |
| Nucleus | Controls the activities of the cell, like a brain |
| Mitochondria | Releases energy to do its job the powerhouse of the cell |
| Chloroplast | Uses the energy from the sun to make sugar, glucose |
| Cell wall | Surrounds and protects cell |
| Cytoplasm | Gives the cell shape and holds the cell's parts jelly-like substance. |
| Vacuole | Stores water, nutrients, and waste |

Know which parts are in each cell-

| Cell part | What cell they are in |
|---------------|-----------------------|
| Cell membrane | Both “ the gate” |
| Nucleus | Both “ the brain” |
| Mitochondria | Both “the powerhouse |

| | |
|-------------|---------------------|
| Chloroplast | Plants “the cook” |
| Cell Wall | Plants “ the guard” |
| Vacuole | Plants “ storage” |
| Cytoplasm | Both “ support” |

Know inherited and acquired traits-

Inherited Trait: Characteristic passed from parents to their offspring

Ex. your hair color, eye color, skin color, the shape of facial features, ear lobe, etc.

Acquired Trait: A feature of a living thing that is caused by its environment

Ex. The pink color of a flamingo’s feather comes from the pigments in the food it eats like shrimp. Ex. flexibility, acquired taste,

Know dominant and recessive traits-

Dominant: strong traits a trait that appears even if there is only one parent that has it.

Ex. (in humans) dark hair, brown eyes, freckles, curly hair, and dimples

Recessive: weak traits that appear when there are two parents with that trait

Ex. (in humans) blond hair, blue eyes, green eyes, straight hair

Know what instinct and learned behaviors are-

Instincts are when organisms are born with certain muscle memory.

Behaviors that animals know how to do without being taught.

Ex. hunting, walking, breathing, etc.

Learned behaviors:

A behavior that mammal learners in their life

Ex. Jumping hurdles, Swimming flip turns reading,

Know the cell theory-

- a) All living things are made up of cells
- b) All processes of life take place in cells
- c) New cells come from existing cells

Know the table on page 275

| Cell part | Plants, animals or both | Function |
|---------------|-------------------------|--------------------------------|
| Cell membrane | Both | Control what leaves and enters |
| Nucleus | Both | Gets rid of waste |
| Mitochondria | Both | Release energy |
| Chloroplast | Plants | Uses the sun to make sugar |
| Cell wall | Plants | Surround, protects cell |

Be able to explain our spiritual inherited traits/spiritual learned behaviors versus our worldly inherited traits/worldly learned behaviors. Also, be able to give examples of these. (discussed in class)

Spiritual inherited traits and learned behaviors

Example 1: Sin is our inherited trait because sin is in our everyday lives in the world. Lying, murder, cursing, cheating, etc.

Example 2: Salvation is our learned behavior because once we believe in God we have salvation. Praying, reading the bible, kindness, love, joy, peace, etc.

Worldly inherited traits and learned behaviors

Example 1: Your eye color is one of our inherited traits because your parents may have that eye color

Example 2: Playing a sport is one of our learned behaviors because you are not born with the ability to play soccer or football, etc. you learn how to play that sport.

THE END

