

## Questions

## Cornell Notes: Characteristics of Living Things (Organisms)

- What are two different functions of proteins?
- What are the two types of reproduction, and how are they different?
- What process do all cells need to get energy?

### 1. All living things are made of cells (ALTAMOC)

- a. Unicellular = one cell

Example = BACTERIA

- b. Multicellular = many specialized cells (can be trillions of cells)

Example = YOU and ME, PLANTS, PETS, etc.

### 2. Living things are made of similar types of chemicals

- a. Water = hydration, about 70% of the human body
- b. Carbohydrates = source of energy (sugars, starches)
- c. Proteins = “building blocks” of cells; important in chemical reactions
- d. Lipids = Store energy and help build cells (fats, oils)
- e. Nucleic Acids = direct cell activities (DNA and RNA)

### 3. Living Things Use Energy

- a. Photosynthesis = process plants use to make their own energy (fuel)
- b. Respiration = process in ALL cells to convert fuel into usable energy

### 4. Living Things Respond to Their Surroundings

- a. Stimulus = change in surroundings causing an organism to react
- b. Response = action or change in behavior

Example = Light flashes in your eyes, you respond by blinking

### 5. Living Things Grow and Develop

- a. Growth = getting larger
- b. Development = change over the lifespan from “kid” to “adult”

Example = Caterpillar turns into butterfly

### 6. Living Things Reproduce

Reproduction = production of offspring similar to the parents

- a. Asexual = one “parent” splits into two identical offspring (bacteria)
- b. Sexual = Two parent combining genetic material to make offspring similar to but not identical to themselves

