

8 Characteristics of Life

Compiled by class members of 1st hour biology

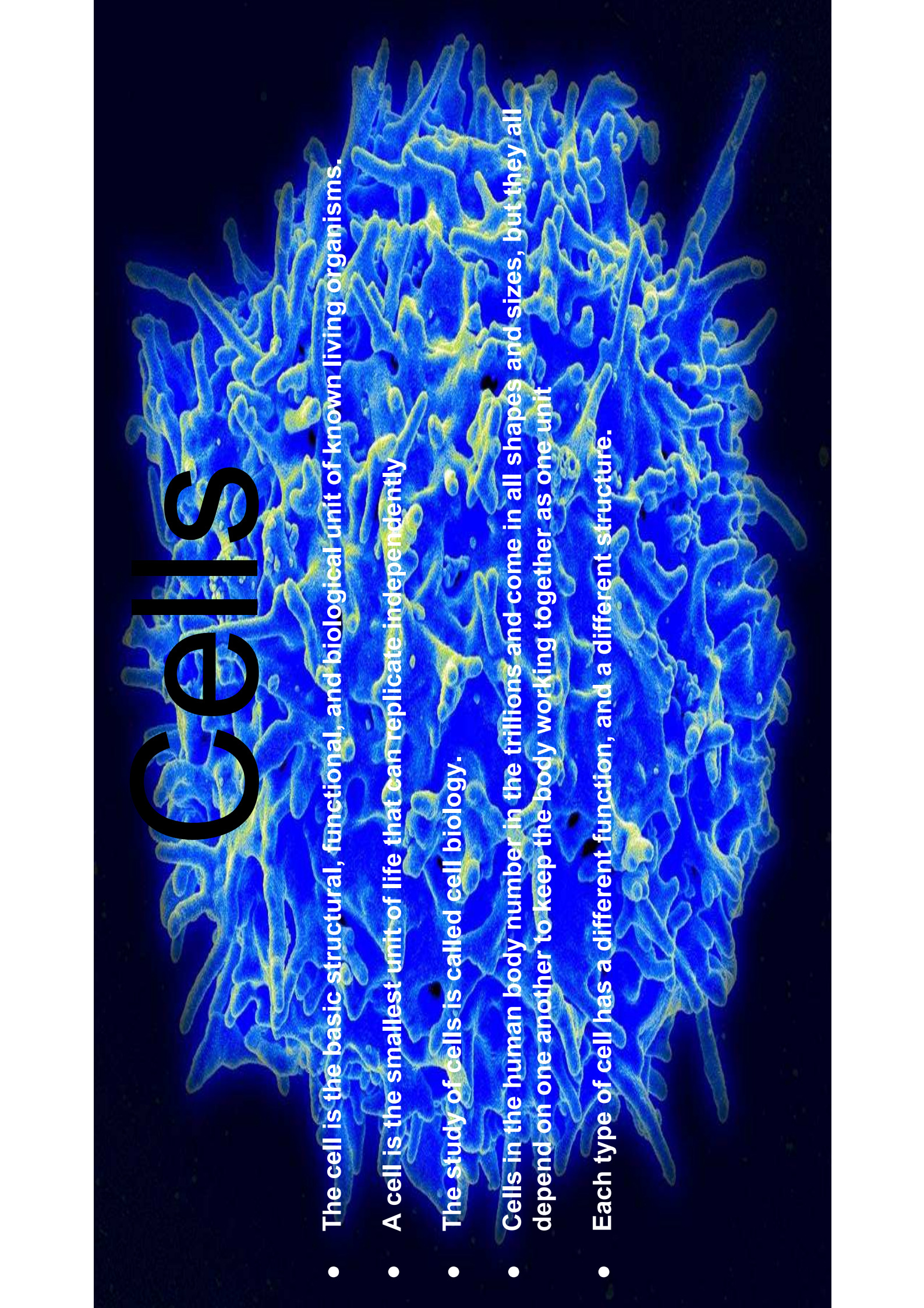
Reproduction

- One organism can survive without reproduction...
 - but it's required for a species to survive
- Genetic information gets passed to next generation

Adaptations evolve over time

- **inherited changes**
- **occur over time**
- **help the species survive**

Cells



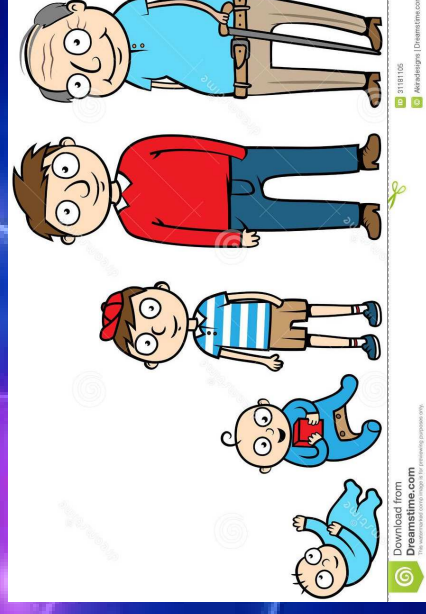
- The cell is the basic structural, functional, and biological unit of known living organisms.
- A cell is the smallest unit of life that can replicate independently
- The study of cells is called cell biology.
- Cells in the human body number in the trillions and come in all shapes and sizes, but they all depend on one another to keep the body working together as one unit
- Each type of cell has a different function, and a different structure.

Growth & Development

By: Tyler Dunn, Harry, & Codey

Definition of growth: the process that results in mass being added to an organism; may include formation of new cells and new structures.

Definition of development: changes an organism undergoes in its lifetime before reaching its adult form. Examples: Robin chicks cannot fly for the first few weeks of their lives. Like most organisms, robins **develop** structures that give them specific abilities, such as flying.



Organization

The levels of organization in biological systems being with atoms and molecules and increase in complexity. Each organized structure in an organism has a specific function. The structure of an anteater snout relates to one of its functions a container for the anteater's long tongue.

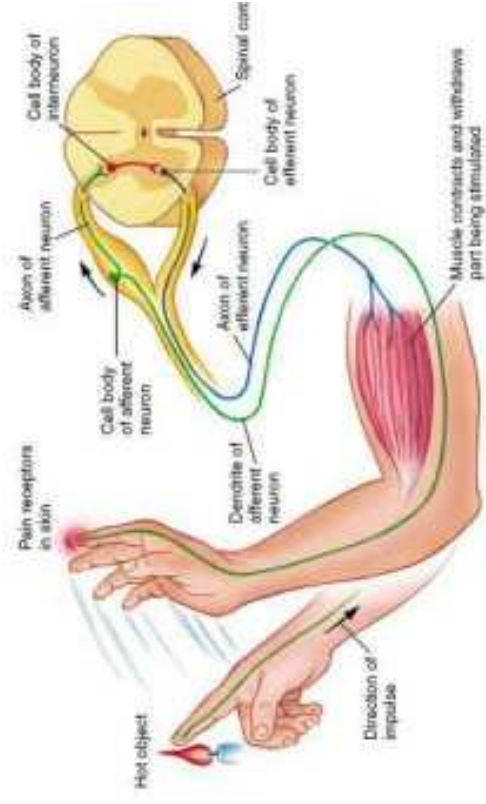
Living things also display organization which means they are arranged in an orderly way. The paramecium is made up of one cell, yet that carries on life functions. Each of those structures is composed of atoms and molecules.

Homeostasis

Homeostasis, from the greek words “same” and “steady”, refers to any process that living things use to actively maintain fairly stable conditions necessary for survival.

Response to Stimuli

Any change in an organism's internal or external environment that causes the organism to react.



Energy Use

Energy is required for all life processes. Many organisms must take in food other organisms make their own food.

