Look out for the special check mark to know which notes to write!

- On a checked slide, write all notes, unless ...
- On a checked slide with lots of notes, just write underlined text!

Cornell Note Format

- Cornell notes use a certain format consisting of three parts.
- The main parts of a Cornell note page are the keywords, the notes, and the summary.

Taking Notes

- First, read a section of the text and write down important things to know such as dates, events, or people.
- Then, write a note about what you read and then write a keyword, something that would remind you of what you read.

Writing a Summary

- When you have finished taking all of your notes, write a summary of the notes in the bottom section of the page.
- The summary does not have to be too long, maybe just one or two sentences.

What Does it Mean to Be Alive?

The Characteristics of Life

Life!!!

All living things share some basic properties.
- Cellular Organization
- Reproduction
- Metabolism (Obtain and Use Energy)
- Homeostasis
- Heredity
- Responsiveness
- Growth and Development
- Adapt Through Evolution
All Living Things are Made Up of Cells
Smallest unit capable of all life functions

Unicellular Organisms
✓ Entire organism is made up of one single cell
✓ Bacteria and protists

Multicellular Organisms
✓ The organism is made up of many cells
✓ Cells have specialized functions within the organism

All Living Things Reproduce
Reproduction is the process of producing new organisms of the same type

Asexual Reproduction
✓ A single parent organism reproducing by itself

Sexual Reproduction
✓ Two different parent organisms contribute genetic information
✓ Involves the combination of male and female sex cells

All Living Things Obtain and Use Energy
Living organisms need energy to grow, develop, repair damage, and reproduce

Anabolism
The process of building up complex substances from simpler substances
✓ Building up cells and cellular components
✓ Photosynthesis
Catabolism
The process of breaking down complex substances into simpler substances to release energy
- Digestion
- Cellular Respiration

Metabolism
The total of all chemical reactions in an organism
- Anabolism + Catabolism = Metabolism
  \[ \text{CO}_2 + \text{H}_2\text{O} + \text{ENERGY} \]

All Organisms: Maintain Homeostasis
A stable state of conditions in the body that are necessary for life
- Body temperature
- Blood volume
- pH balance
- Water balance

All Organisms: Pass Along Hereditary Traits
Genes carry hereditary information
- Genes are composed of DNA
- Heredity is the reason children resemble their parents
  Mutations change DNA code and can be passed from generation to generation

All Living Things Respond to Their Environment
Organisms react to stimuli
- Light
- Temperature
- Odor
- Sound
- Gravity
- Heat
- Water
- Pressure

All Living Things Grow
Growth means to get bigger in size
- An example is a plant’s leaves and stems growing toward light
**All Living Things Develop**

Development involves a change in the physical form or physiological make-up of an organism.

**An Example of Adaptation**

Desert plants have succulent waxy leaves and stems to store water and reduce water loss.

**All Living Things Adapt to Their Environment Through Evolution**

**Adaptation**

✓ A process that enables organisms to become better suited to their environment
✓ Species obtain adaptations through evolution over great periods of time