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| The Plant kingdom is in domain Eukarya  **Characteristics:**   * eukaryotic cells - have a nucleus * multicellular * heterotrophic - contain chlorophyll (pigment that absorbs light energy) in their chloroplast and do photosynthesis * cuticle - waxy layer that coats the surface of stems, leaves, and other plant parts * cell wall made of cellulose   **Divisions(what they call Phlum for plants):**  **Mosses:**   * nonvascular- without vessels to transport water and nutrients * small * live in wet areas * no true stems, roots, and leaves * reproduce by spores   **Ferns:**   * vascular - have tissues to deliver water and other materials throughout the plant * reproduce by spores   **Conifers:**   * also called gymnosperms- “naked seed”   or seed not enclosed in a fruit   * vascular * Examples: ginkgo tree, pine trees |
| **Flowering Plants:**   * also called angiosperms - seed plant with flowers * vascular * fruit surround and protect seeds * Examples: apples, corn, roses, eggplant, etc.   **Plant Behavior**  The stimulus is what causes an organism to respond.  ● phototropism – plants response to light  ● geotropism – plants respond to gravity  ● thigmotropism – plants respond to touch  ● hydrotropism– plants respond to water |
| **Plant Processes**  **Photosynthesis:** Label the equation for the process of photosynthesis below.  6 CO2 + 6 H2O --------------> C6H12O6 + 6O2  **carbon + water sunlight glucose + oxygen**  **dioxide**   * What are the reactants? carbon dioxide, water, and sunlight * What are the products? glucose and oxygen   **Transpiration:** when the leaves of plants release water into the environment |