

Plants  
Study Guide  
Fourth Grade

Know the following vocabulary:

- **roots**-take up water and nutrients from the ground, keep plants firmly in the soil (pg. 49)
- **root hairs**-take in water and nutrients that plants need (pg. 49)
- **taproot**-one large root, carrots and dandelions have these roots (pg. 49)
- **fibrous roots**-spread out into the soil, such as grass (pg. 49)
- **stem**-moves food, water, and nutrients throughout the plant, holds plant upright so it does not fall over (pg. 49)
- **photosynthesis**-process by which plants make their own food (pg. 50)
- **stomata**- tiny holes on the bottom of leaves where carbon dioxide enters (pg. 51)
- **transpiration**-if a plant has too much water, its stomata stay open, the extra water escapes (pg. 51)
- **respiration**-cells take in oxygen and give off carbon dioxide, during this process plants change sugar into energy (pg. 51)
- **spore**-cell in a seedless plant that can grow into a new plant (pg. 52)
- **seed**-a plant that is not fully formed (pg. 60)
- **germination**-when a seed sprouts (pg. 64)
- **life cycle**-stages of growth and change during an organism's life. (pg. 65)

Know the following:

- Be able to identify ways that seeds are spread: **seeds can be carried by wind, attach to an animal's body, or can be passed to the soil through animal droppings** (pg. 65)
- Be able to identify the stages of a plant's life cycle: **1. The seed sprouts. 2. The seedling has a stem, roots, and leaves. 3. A flower forms. 4. The adult makes new seeds.**

**\*There will be an open response question on this test. The open response is on the back of this study guide. We went over this question together in class.**