

LINCOLN PUBLIC SCHOOLS  
Science Learning Expectations: Grade 4

**Standard**

**Life Science:**

Plant Structures &  
Functions Energy &  
Living Things

Mass Standard

Recognize that plants and animals go through predictable life cycles that include birth, growth, reproduction, and death.  
Recognize plant behaviors such as the way seedlings' stems grow toward light and their roots grow downward in response to gravity.  
Describe how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within a food chain from producers (plants) to consumer to decomposers.

**Big Ideas**

- ❑ Many plants follow a life cycle that begins with growth from a seed and proceeds through the production of seeds.
- ❑ Plants have distinct stages in their life cycle.

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**Key Outcomes**

- ❑ Students will demonstrate an understanding **that plants go through predictable life cycles** by explaining and giving examples of the parts, functions, and life cycles of plants.

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**Essential Knowledge and Skills**

*Students will know:*

- ❑ How to use scientific inquiry\* to access, explore and explain their understanding of core knowledge
- ❑ That living things have diverse forms, structures, functions, and habitats
- ❑ Photosynthesis is the process in which plants produce their own food
- ❑ Plants survive in different environments and what key factors help a plant grow
- ❑ To live and grow, plants need light, water, and nutrients.
- ❑ Describe how roots, stems, and flowers are associated with the intake of water and soil nutrients and green leaves are associated with making food from sunlight (photosynthesis).
- ❑ Label and understand the life cycle of a plant.

\* Scientific Inquiry Standards are embedded in each unit of study