



## Can Plants Grow Without Soil? - Curriculum Connections

**Suggested Grades:** K, 1, 2, 3, 4, 5, 6

**Curriculum Connections:** Matter (Gr 3, 6), Energy (Gr 2) Living Systems (Gr 1, 2, 3, 6), Earth Systems (K, 1, 2, 3, 4, 5, 6), Computer Science (K, 1)

### Specific Learning Outcomes:

#### Kindergarten

- *Earth Systems* - Children examine and describe surrounding environments (plants).
- *Computer Science* - Children interpret instructions in various environments.

#### Grade 1

- *Earth Systems* - Students analyze environments and investigate interactions and changes (caring/respect for nature)
- *Living Systems* - Students investigate and examine needs of plants and animals.
- *Computer Science* - Students follow instructions and relate them to outcomes.

#### Grade 2

- *Energy* - Students investigate the behaviours of light and sound (sunlight).
- *Earth Systems* - Students investigate Earth, its landforms, its bodies of water, and its relationship to the Sun.
- *Living Systems* - Students investigate the growth and development of plants and animals and consider their relationship to humans.

#### Grade 3

- *Matter* - Students investigate and analyze how materials have the potential to be changed (melting of ice cube).
- *Earth Systems* - Students analyze changes in Earth's surface and explain how its layers hold stories of the past (Earth is warming from natural and human causes).
- *Living Systems* - Students analyze and describe how plants and animals interact with each other and within environments (human behaviours can affect plants and animals).



#### Grade 4

- *Earth Systems* - Students investigate the systems of Earth and reflect on how their interconnections sustain life (natural resources, conservation).

#### Grade 5

- *Earth Systems* - Students analyze climate and connect it to weather conditions and agricultural practices.

#### Grade 6

- *Matter* - Students investigate how particles of matter behave when heated or cooled and analyze effects on solids, liquids, and gases (how water responds to temperature changes).
- *Earth Systems* - Students investigate climate, changes in climate, and the impact of climate change on Earth.
- *Living Systems* - Students investigate the characteristics and components of and interactions within ecosystems (abiotic and biotic components of ecosystems, role of plants)