

Pequea Valley School District
English

Unit: Living and Non-Living Things

Course: Science

Grade: Kindergarten

Planning the Focus Based on the Desired Result
What do you want all students to know, understand and do by the end of the unit?

Unit Essential Question(s):

Unit EQ:

Lesson EQ's:

- Do I notice similarities and patterns in living things?
- Can I explain why living things need air and water?
- Can I use my senses to help solve problems?
- Structure: An object or living thing made up of a number of parts.
- Parts: A portion or piece of a whole.
- Function: How a part acts or moves.
- Can I explain why changes have occurred?
- Can I identify changes through observation and explanations?

Keystone Eligible Content/PA Core Standard

3.1.K.A1 Identify the similarities and differences of living and non-living things.

3.1.K.A5 Observe and describe structures and behaviors of a variety of common animals.

3.1.K.C2 Describe changes animals and plants undergo throughout the seasons.

3.2.K.B6 ENERGY Recognize that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow.

Pacing: Approximate number of class sessions per unit

Tier 3 Vocabulary (Content specific vocabulary)

- Living Thing: Something that grows, changes, and needs food, air, and water to survive.
- Nonliving Thing: Something that does not grow and change, or need food, air, or water to survive.
- Basic Needs: Things needed to survive such as food, water, air and shelter.

Know - What do learners need to **know** in order to be able to do and understand? *List concepts, such as facts, formulas, key vocabulary and knowledge “nuggets”.*

- Know that living things need food, air, and water to survive.
- Know that living things grow and change.
- Know that nonliving things do not need food, air, and water to survive.
- Know that nonliving things do not grow and change.

Understand - What do learners need to **understand**? What is the **big idea**? *List broad concepts or “big ideas” in a statement of enduring understanding.*

- Learners need to understand that living things need food, air, and water to survive.
- Learners need to understand that living things grow and change.
- Learners need to understand that nonliving things do not need food, air, and water to survive.
- Learners need to understand that nonliving things do not grow and change.

Learning Outcome - What do learners need to be able to **accomplish** by the unit’s end? *List skills and competencies.*

- Learners will be able to build an introductory vocabulary of scientific terms.
- Learners will be able to identify what is living and nonliving.
- Learners will be able to identify living and nonliving things on a farm.
- Learners will be able to group objects by like characteristics.
- Learners will be able to compare objects with different characteristics.
- Learners will be able to identify the basic needs of living things.
- Learners will be able to identify parts of living things.
- Learners will be able to identify the function of parts of living things.
- Learners will be able to sort common Pennsylvania things into groups.

- Learners will be able to identify similarities and differences of living things found in Pennsylvania.
- Learners will be able to use their senses to develop observations.
- Learners will be able to observe and categorize living and nonliving things by external characteristics.

Literature:

Software/Resources:

Pequea Valley School District
English

Unit: Plant Life Cycles

Course: Science

Grade: Kindergarten

Planning the Focus Based on the Desired Result
What do you want all students to know, understand and do by the end of the unit?

Unit Essential Question(s):

Unit EQ:

Lesson EQ's:

- Do I notice similarities and patterns in living things?
- Can I explain why living things need air and water?
- Can I compare common physical characteristics?
- Can I explain why changes have occurred?
- Can I identify changes through observation and explanations?

Keystone Eligible Content/PA Core Standard

3.1.K.A3 Observe, compare, and describe stages of life cycles for plants and/or animals.

3.1.K.C2 Describe changes animals and plants undergo throughout the seasons.

Pacing: Approximate number of class sessions per unit

Tier 3 Vocabulary (Content specific vocabulary)

- Life Cycle: A series of stages through which something passes during its lifetime.
- Roots: Anchor and support the plant, take in water and food, and store food.
- Stems: Hold leaves up to the light and move water and food up and down the plant.
- Leaves: “Catch” light and use it to make food.
- Flowers: Produce seeds and attract birds, insects, and other pollinators.
- Scientific Journal: A daily record of happenings.

Know - What do learners need to **know** in order to be able to do and understand? *List concepts, such as facts, formulas, key vocabulary and knowledge “nuggets”.*

- Know the parts of a plant: root, leaves, stem, and flower.
- Know the stages of a plant’s life cycle.
- Know the parts of a plant and their functions.

Understand - What do learners need to **understand**? What is the **big idea**? *List broad concepts or “big ideas” in a statement of enduring understanding.*

- Learners need to understand that plants have parts, and each part has a function.
- Learners need to understand that plants grow from seeds.

Learning Outcome - What do learners need to be able to **accomplish** by the unit’s end? *List skills and competencies.*

- Learners will be able to observe differences and similarities of a variety of seeds.
- Learners will be able to observe, measure, and record the growth of a seed into a plant.
- Learners will be able to describe the importance of each part of a plant.
- Learners will be able to identify the parts of a plant: root, leaves, stem, and flower.
- Learners will be able to observe the life cycle of plants using their senses.
- Learners will be able to identify the stage’s in a plant’s life cycle.
- Learners will be able to use tools (e.g., hand lens) to observe changes in a plant.

Literature:

- *Sunflower House* by Eve Bunting. PUBLISHER, DATE
- *From Seed to Plant* by Gail Gibbons. Holiday House, 1993.
- *The Tiny Seed* by Eric Carle. Little Simon, 2009.

Software/Resources:

Pequea Valley School District
Science

Unit: Seasons and Weather

Course: Science

Grade: Kindergarten

Planning the Focus Based on the Desired Result
What do you want all students to know, understand and do by the end of the unit?

Unit Essential Question(s):

Unit EQ:

Lesson EQ's:

- Can I explain what weather changes have occurred?
- Can I identify weather changes through observation and explanation?

Keystone Eligible Content/PA Core Standard

3.2.K.B6 - Describe changes animals and plants undergo throughout the seasons.

3.1.K.C3 - CONSTANCY AND CHANGE Describe changes that occur as a result of climate.

3.2.K.B3 - Describe how temperature can affect the body.

3.3.K.A5 - Record daily weather conditions using simple charts and graphs Identify seasonal changes in the environment. Distinguish between types of precipitation.

Pacing: Approximate number of class sessions per unit

Tier 3 Vocabulary (Content specific vocabulary)

- Weather: What the air is like at a certain time and place.
- Wind: Air moving.
- Precipitation: Water falling from the sky in forms such as rain, snow, or hail.
- Thermometer: An instrument for measuring temperature.

Know - What do learners need to **know** in order to be able to do and understand? *List concepts, such as facts, formulas, key vocabulary and knowledge “nuggets”.*

- Know that there are various forms of water.

- Know that a thermometer is a tool used to measure temperature.
- Know that there are different forms of precipitation.
- Know that temperature affects the type of precipitation that occurs.

Understand - What do learners need to **understand**? What is the **big idea**? *List broad concepts or “big ideas” in a statement of enduring understanding.*

- Learners need to understand that a thermometer is a tool used to measure temperature.
- Learners need to understand that there are different kinds of precipitation.
- Learners need to understand that temperature affects the type of precipitation that occurs.
- Learners need to understand that there are several forms of water.
- Learners need to understand that there are four seasons.
- Learners need to understand that each of the four seasons has its own distinct weather.

Learning Outcome - What do learners need to be able to **accomplish** by the unit’s end? *List skills and competencies.*

- Learners will be able to use a thermometer as a tool used to measure temperature.
- Learners will be able to demonstrate how rain is made.
- Learners will be able to describe different kinds of precipitation.
- Learners will be able to describe how temperature affects the type of precipitation that occurs.
- Learners will be able to identify various forms of water.
- Learners will be able to identify the four seasons.
- Learners will be able to identify the weather that occurs in each of the four seasons.

Literature:

- *Water Dance* by Thomas Locker. Sandpiper, 2002.
- *The Rain Came Down* by David Shannon. Blue Sky Press, 2000.
- *It Looked Like Spilt Milk* by Charles G. Shaw. HarperFestival, 1992.

Software/Resources: