Wallenpaupack Area School District
Planned Course Curriculum Guide

Department Science

Grade 2

Course Description:
The elementary science curriculum provides opportunities for students to develop understanding and skills to become problem solvers in a scientific world. Students will describe, discuss, identify and compare various landforms and their formation. Students will observe, discuss and differentiate between inherited and learned behaviors and traits. Students will also observe, compare, classify and develop an understanding of plant and animal life cycles. The needs of living things will be identified, investigated and compared to develop an understanding of the effects of changing environments.

Initial Creation Date (if applicable) and Revision Dates:
6/5/25

Wallenpaupack Area School District Curriculum	
COURSE: Grade 2 Science	**GRADE/S: 2**
UNIT 1: Living things and their needs **Life Cycles** **Inherited characteristics**	**TIMEFRAME: 12 weeks (4 weeks per unit_**

PA COMMON CORE/NATIONAL STANDARDS:

UNIT OBJECTIVES (SWBATS):

Describe characteristics of living things that help to identify and classify them.

illustrate how plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death.

Classify plants and animals according to the physical characteristics that they share.

Describe the different resources that plants and animals need to live.

Construct and interpret models and diagrams of various animal and plant life cycles.

Compare and contrast the similarities and differences in life cycles of different organisms.

Understand that plants and animals closely resemble their parents.

Identify characteristics that appear in both parents and offspring.

Describe features that are observable in both parents and their offspring.

Recognize that reproduction is necessary for the continuation of life.

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
Investigating characteristics and needs of living and non-living things.
Observe the life cycle of living things.
Construct models of life cycles.
Compare/contrast habitats.
Explain how specific adaptations can help a living organism to survive.
Explain why each of the four elements in a habitat is essential for survival.
Explain why plants and animals differ in coloring, shapes, sizes and how that is related to inherited characteristics.

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
Teacher observations, rubrics, and teacher created assessments.

DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment):
Small group instruction, one on one support, additional resources as needed to reteach or enrich.

RESOURCES (Technology Based Resources, Text Resources, etc.):
Non-fiction text
Pebble-go.

Key Vocabulary:

Living

non-living

organism

environment

Survive

species

Life cycle

egg, larva, pupa, adult.

metamorphosis

Grow

change

Habitat

Wallenpaupack Area School District Curriculum	
COURSE: Grade 2 science	**GRADE/S: 2**
UNIT 2: PA Landforms and formation of landforms	**TIMEFRAME: 8weeks**

PA COMMON CORE/NATIONAL STANDARDS:

UNIT OBJECTIVES (SWBATS):

Describe basic landforms. Identify the layers of the earth.
Recognize that the surface of the earth changes due to slow processes and rapid processes.
Identify basic landforms using models and simple maps.
Identify simple changes in the earth system as air, water, soil and rock interact.
Explain how basic weather elements are measured
Recognize and identify how water goes through phase changes (i.e., evaporation, condensation, freezing, and melting).
Describe how the properties of matter can be changed (e.g., heating, cooling, and physical weathering).
Identify what different models represent (e.g., maps show physical features, directions, distances; globes represent

INSTRUCTIONAL STRATEGIES/ACTIVITIES:

Identify and label basic Earth structures and water formations through the use of models.
Describe locations of fresh and salt water in or near the state of PA.
Explain watersheds and wetlands and their importance to plants and animals.
Develop models to represent the shapes and kinds of land and bodies of water in an area.
Use information from sources to provide evidence that Earth events can occur slowly or quickly.
Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.
Obtain information to identify where water is found on Earth and that it can be solid or liquid.

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

Teacher observations, rubrics, and teacher created assessments.

DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment):

Small group instruction, one on one support, additional resources as needed to reteach or enrich.

RESOURCES (Technology Based Resources, Text Resources, etc.):

Non-fiction text
Pebble-go.

KEY VOCABULARY

Erosion
weathering

Earth **materials** **landform** **geographic** **geologic**

Wallenpaupack Area School District Curriculum	
COURSE: Grade 2 science	**GRADE/S: 2**
UNIT 3: The History of Planet Earth **Rock Cycle** **Fossils**	**TIMEFRAME: 12 weeks (4 weeks per unit)**

PA COMMON CORE/NATIONAL STANDARDS:

OBJECTIVES (SWBATS):

Identify and describe the layers of the Earth.
Explain the rock cycle.
Make observations to construct evidence that Earth events can occur slowly or quickly.
Construct explanations and design solutions to problems.

INRUCTIONAL STRATEGIES/ACTIVITIES

Construct models of the rock cycle.
Classify rocks as metamorphic, sedimentary, and igneous.
Use interactive diagrams to simulate the rock cycle.
Classify rock samlpes
Explore industrial uses of rocks.
Classify different types of fossils as imprint, body, or trace.
Obtain and combine information to describe that energy and fuels are derived from natural resources.
Identify different types of Earth's materials.

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):

Teacher observations, rubrics, and teacher created assessments.

DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment):

Small group instruction, one on one support, additional resources as needed to reteach or enrich

RESOURCES (Technology Based Resources, Text Resources, etc.):
Non-fiction text
Pebble-go.

KEY VOCABULARY:

Weathering
Erosion
Metamorphic
Sedimentary
Igneous
Volcano
Crust
Mantle
core