

Jay Curriculum: Unit Cover Page

Unit title: Monarch Butterfly **Grade Level:** 2
Content Area(s): Science **Date Created:**
Designed By: Jay Second Grade Teachers

Year 1 Map & Template Development

- Map/Matrix Completed
- Material & Resources Listed
- Draft Design Template Completed
- Initial Draft Template Document

Year 2 Piloting

- Develop:
- Performance Tasks
- Other Assessments
- Scoring Rubrics
- Piloted

Year 3 Review & Complete Assessment

- Performance Tasks Development
- Other Assessments Completed
- Scoring Rubrics Completed
- Reviewed/Revised Templates

Year 4

- Full Implementation
- Benchmarks Established

Standard(s)/Performance Indicators:

- A2 Describe characteristics of different living things
- A3 Explain, draw, or otherwise demonstrate the life cycle of an organism
- B1 Identify ways that organisms depend
- B2 Describe how almost all animals' food can be traced back to plants
- B3 Give examples of how one change in a system affects other parts of the system
- C2 Describe how single-celled organisms exist
- C3 Explore magnifying devices and how they allow one to see in more detail
- D2 Identify characteristics that help organisms live in their environment
- D3 Draw or describe ways in which an organism can change over its lifetime, sometimes in predictable ways (e.g. butterfly, frog)
- D4 Describe ways in which individuals of the same species are alike and different
- E1 Show that large things are made up of smaller pieces
- F2 Analyze the relationships between observable weather patterns and the cycling of the seasons
- H2 Explain ways different forms of energy can be produced
- K3 Make observations
- K4 Participate in brainstorming
- L2 Read and write instructions to be followed or instructions which explain procedures
- L3 Ask clarifying questions
- L4 Explain problem-solving processes using verbal, pictorial, and written methods
- L5 Make and read simple graphs
- L6 Use objects and pictures to represent scientific and technological ideas

Unit: Monarch Butterfly

Brief Summary of Unit/Topic

Summary:

In this unit, students will investigate and observe the life cycle, adaptations, migratory patterns of the Monarch butterfly. This unit emphasizes the characteristics of each stage, how the Monarch (during each stage) adapts to its environment, and how seasonal changes affect migratory patterns.

Stage #1: Identify Desired Results

Essential Question/s:

General understanding/s (What is worth being familiar with?)

- Life cycle of a Monarch butterfly
- Migratory patterns
- Seasonal influences

Students will know:

- A Monarch goes through four different stages of life
- Each stage has its own unique characteristics
- Monarch butterflies migrate due to seasonal changes
- The country of Mexico is the winter habitat to thousands of Monarch butterflies
- Milk weed is the food source for Monarch caterpillars
- Nectar is the food source for Monarch butterflies

Students will be able to:

- Observe, record, and organize data
- Graph observations and analyze them
- Draw, sequence, and explain the four stages in the life cycle
- Trace the migratory routes on a map
- Communicate knowledge through journal writing and discussion
- Read scientific material for further information

Enduring Understanding/s:

- The Monarch butterfly goes through four stages in its life cycle
- A Monarch butterfly must migrate due to seasonal changes

Stage #2: Evidence

What evidence will students have to provide in order to demonstrate that they have developed the skills, knowledge and understanding to successfully complete this unit?

| Performance Tasks/Products/other assessments Performance tasks should have a <u>scoring guide</u> . | <i>Performance Indicators</i> for this task.* Example: ELA: C- 1,2,3 Science: B- 3,5,7 SS His: H- 2 | <u>Modalities</u> K =Kinesthetic O =oral V =visual W =written | Are <u>examples</u> available to students? ? Y, N, or N/A | Component of Local Assessment System? Y or N (See aligned scoring guide .) |
|--|---|---|--|---|
| Identify the Monarch caterpillar and butterfly | A2,3; C3; D4; E1; L5,6 | | | |
| Identify and sequence the life cycle of the Monarch butterfly | A3; C1; D3; K3; L2,3,4 | | | |
| Understand the migratory patterns of the Monarch butterfly | B1-3 | | | |
| QUIZZES, TESTS, PROMPTS | | | | |
| True/false assessment of the Monarch | | | | |
| Sequencing of the 4 stages in the life cycle | | | | |
| OTHER | | | | |
| Teacher observations | | | | |
| Sequencing cards and stamps | | | | |
| Graphing | | | | |
| Reports | | | | |
| STUDENT SELF ASSESSMENT | | | | |
| Journal writing | | | | |
| Science logs | | | | |

*Abbreviate: English Language Arts= ELA, Career Preparation=CP, Modern and Classical Languages=MCL, Social Studies=SS, Visual and Performing Arts=VPA

Stage #3: Plan learning experiences & instruction

What teaching & learning experiences may equip students to develop & demonstrate the targeted understanding(s)? (activities/plans):

1. Introductory story or video
2. Introductory of key vocabulary
3. Students bring in caterpillars – daily observations
4. Students read and discuss appropriate literature
5. Use sequence stamps to demonstrate the life cycle
6. Use magnifying glasses for observations and journal writing
7. Introduction of map of North America. Explain Mexico in relation to Maine.
8. Discuss influences of the fall season
9. Use computers for research and story writing
10. Children map the migratory route from Maine to Mexico
11. Discuss the importance of plant life (milkweed and nectar) in the life cycles
12. Compare and contrast differences between caterpillar and butterfly
13. Discuss environmental influences
14. Conclude the unit with classroom discussions, story, and T/F test

REFERENCES: