

# FALMOUTH PUBLIC SCHOOLS

## SCIENCE CURRICULUM

### **Unit Overview: Life Science (LS) Animals Grow and Change**

**Grade 2**

Suggested time frame: 4 reading lessons, 10 sessions, + observations, + assessments

### **Science Curriculum Goals**

1. **SCIENTIFIC LITERACY.** Provide all students with science experiences that are appropriate to their cognitive stages of development and serve as a foundation for more advanced ideas that prepare them for life in an increasingly complex scientific and technological world.
2. **INSTRUCTIONAL EFFICIENCY.** Provide all teachers with a comprehensive, flexible, attainable science curriculum based upon current research on learning; including collaborative learning, student discourse, and embedded assessment, and uses effective instructional methodologies including: hands-on active inquiry-based learning, integration of disciplines and content areas, and multisensory methods.
3. **SYSTEMIC REFORM.** Aligned to the Massachusetts State Curriculum Frameworks Science Standards and societal expectations that will prepare students with the knowledge, skills and understandings to succeed in the 21st century.

### **Pedagogy**

Young people need an understanding of basic scientific concepts and methods in order to comprehend the scientific issues that will shape their lives. It is equally important for students to develop and apply the concepts and process skills used in scientific inquiry so that they will be prepared to solve problems encountered in other areas of study and in dealings with the everyday world.

This unit emphasizes basic science concepts and skills presented through a range of engaging, inquiry-based, hands-on instructional experiences that focus on the processes and techniques of discovery. This unit is designed to promote scientific literacy and provide opportunities for students to satisfy their innate curiosity as they develop techniques for observing, questioning, and testing basic scientific concepts.

### **Unit Summary**

Animals Grow and Change allows students to discover how animals change as they grow and ways that living things are like their parents; moreover, it provides hands-on experiments that explore how an animal's habitat provides for its basic needs. Further, this unit enables students to see that all animals have different life cycles. In this unit, the life cycle and habitat of a butterfly will be explored.

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#### Curriculum Standards and Enduring Understandings

LS3 Draw and label the life cycle of an animal.

- A life cycle is the way a living thing grows and changes.

LS4 Recognize animals look like their parents.

- Animals look like their parents.

LS8 Describe ways in which an organism's habitat provides for its basic needs

LS8 Identify animal habitats

- An animal's habitat provides for its basic needs.

#### Essential Questions

- How do animals change as they grow?
- How might animals be like their parents?
- How does an animal's habitat provide for its basic needs?

#### Unit Vocabulary

abdomen  
antennae  
caterpillar  
chrysalis  
frass  
habitat  
larva/larvae  
life cycle  
living  
meconium  
nonliving  
nutrient  
observe  
silk  
thorax

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#### Evidence of Scientific Method within Instruction

- ✓ Reading (shared, guided, independent) – *share information, collaborate*
- ✓ KWL – *activate, predict, analyze, hypothesize*
- ✓ Think – Pair – Share – *share information, collaborate*
- ✓ Modeling – *share information, observe, experiment*
- ✓ Participating in experiments - *share information, procedure, measure, record, compare, sort & classify*

#### Assessments

- ❖ Observations
- ❖ Anecdotal notes
- ❖ Class discussions
- ❖ Activity sheets
- ❖ Lab report(s)
- ❖ ORQ(s) \*from Essential Questions
- ❖ “Watch the butterfly grow” worksheet
- ❖ Short answer item(s)