Online Resources

Life Cycles, Traits, and Variations

Click on each section link to access its online resources. Page numbers refer to pages in the Teacher Guide. Some links provide access to files created by the Core Knowledge Foundation, including PDF documents that you can download and view with the appropriate software (such as Adobe Reader).

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Extend and customize this unit for your students using the CKSci Additional Activities
## About This Unit

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| 1    | Note to Teachers and Curriculum Planners:  
  - The learning progressions of the following Disciplinary Core Ideas offer guidance regarding the scope and sequence of learning about traits in the elementary grades and beyond:  
    - LS1.B Growth and Development of Organisms  
    - LS3.A Inheritance of Traits  
    - LS3.B Variation of Traits  
    - LS4.B Natural Selection  
  - Learn more about these core ideas and their related content by reading the corresponding sections of *A Framework for K–12 Science Education*.  
  - See also the Teacher Resources section of this guide. |
| 2    | Notes to Core Knowledge Teachers:  
  - *2019 Core Knowledge Science Sequence* for this unit:  
  - Domain—Life Cycles, Traits, and Variations  
  - CKSci correlations to the *2010 Core Knowledge Sequence*—  
    - GRADE 3  
    - GRADE 4  
    - GRADE 5 |
| 3    | This unit has been informed by the following Next Generation Science Standards (NGSS) Performance Expectations:  
  - Topic—3. Inheritance and Variation of Traits: Life Cycles and Traits  
    - 3-LS1-1  
    - 3-LS3-1  
    - 3-LS3-2  
    - 3-LS4-2 |
| 10   | Resources for Effective & Safe Classroom Activities |
| 11   | Materials Supply List: Grade 3 Unit 2 Life Cycles, Traits, and Variations |
| 14   | Pacing Guides for CKSci Grades 3–5 |

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Online Resources

Part A: Organisms Have Life Cycles

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| 19   | Disciplinary Core Idea: LS1.B *Growth and Development of Organisms*  
  - From the *Framework*: Middle of pg. 145–147 |
|      | Crosscutting Concept: *Patterns*  
  - From the *Framework*: Bottom of pg. 85–87 |
|      | Science and Engineering Practice: *Developing and Using Models*  
  - From the *Framework*: pg. 56-59 |
| 25   | [VIDEO/GIF OPTION]  
  - *Time-lapse of plant germination and growth* |

Lesson 2

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  - From the *Framework*: Bottom of pg. 85–87 |
|      | Science and Engineering Practice: *Developing and Using Models*  
  - From the *Framework*: pg. 56-59 |
| 28   | [VIDEO] *Life Cycle of Mosquitos* |

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| 39   | Performance Expectation:  
• [3-LS1-1](#)  
• [Evidence Statements](#) for 3-LS1-1  
Disciplinary Core Idea: LS1.B *Growth and Development of Organisms*  
• From the *Framework*: Middle of pg. 145–147  
Crosscutting Concept: *Patterns*  
• From the *Framework*: Bottom of pg. 85–87  
Science and Engineering Practice: *Developing and Using Models*  
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|      |   pg. 158–159  
|      | • LS3.B Variation of Traits  
|      |   From the Framework:  
|      |   pg. 160–161 |
|      | Crosscutting Concept: Patterns  
|      |   From the Framework:  
|      |   Middle of pg. 85-87 |
|      | Science and Engineering Practice: Analyzing and Interpreting Data  
|      |   From the Framework: Bottom of pg. 61-63 |
| 53   | [VIDEO OPTIONS]  
|      | • Amazing Animals  
|      | • For example: Walruses or Giraffes  
|      |   Also for more information:  
|      | • Animal Types |

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|      | Crosscutting Concept: Patterns  
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|      | Science and Engineering Practice: Analyzing and Interpreting Data  
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[VIDEO] Puppy Paws
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|      | Science and Engineering Practice: *Analyzing and Interpreting Data*  
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| 64   | ![Image](Cat with kittens)  
| 65   | ![Image](Cheetah)  
|      | ![Video](Cheetah 101)  

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| 73   | [VIDEO] *Mustang herd*  
| 74   | [IMAGE] *Seashell variations*  

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  From the *Framework*: [pg. 160–161](#) |

Crosscutting Concept: *Cause and Effect*  
- From the *Framework*: Middle of [pg. 87-89](#)  

Science and Engineering Practice: *Constructing Explanations and Designing Solutions*  
- From the *Framework*: Bottom of [pg. 67-71](#)  

| 88   | [VIDEO OPTIONS]  
- [Flooded crops](#)  
- [City monkeys](#) |

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  Science and Engineering Practice: *Constructing Explanations and Designing Solutions*  
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| 102  | [VIDEO] *Polar bear* |

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| 109  | [VIDEO ] *Snowshoe hare traits*  

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| 11   | Materials Supply List: Grade 3 Unit 2 Life Cycles |
| 108  | Activity Pages Answer Key |
| 110  | Unit Assessment: Teacher Evaluation Guide |
| 116  | Safety in the Science Classroom:  
  • NSTA Safety Resources  
  • Safety Resources for Elementary Teachers |

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- Appendix D – Advance Preparation  
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