

Grade 3

Unit 4—Plant and Animal Adaptations (FOSS® Structures of Life)**Essential Question: How are plants and animals well-suited to live in their environments?**

Major Understandings *quoted from NYS Performance Indicators*

(Note: Correlation is provided at the level of FOSS “Investigation & Part.” All “Steps” of an investigation must be completed to meet the standard.)

LE 2.1 Recognize that traits of living things are both inherited and acquired or learned.

2.1a Some traits of living things have been inherited (e.g., color of flowers and number of limbs of animals).

2.1b Some characteristics result from an individual’s interactions with the environment and cannot be inherited by the next generation (e.g., having scars; riding a bicycle).

LE3.1 Describe how the structures of plants and animals complement the environment of the plant or animal.

3.1a Each animal has different structures that serve different functions in growth, survival, and reproduction.

- wings, legs, or fins enable some animals to seek shelter and escape predators
- the mouth, including teeth, jaws, and tongue, enables some animals to eat and drink
- eyes, nose, ears, tongue, and skin of some animals enable the animals to sense their surroundings
- claws, shells, spines, feathers, fur, scales, and color of body covering enable some animals to protect themselves from predators and other environmental conditions, or enable them to obtain food
- some animals have parts that are used to produce sounds and smells to help the animal meet its needs
- the characteristics of some animals change as seasonal conditions change (e.g., fur grows and is shed to help regulate body heat; body fat is a form of stored energy and it changes as the seasons change)

3.1b Each plant has different structures that serve different functions in growth, survival, and reproduction.

- roots help support the plant and take in water and nutrients
- leaves help plants utilize sunlight to make food for the plant
- stems, stalks, trunks, and other similar structures provide support for the plant
- some plants have flowers
- flowers are reproductive structures of plants that produce fruit which contains seeds
- seeds contain stored food that aids in germination and the growth of young plants

3.1c In order to survive in their environment, plants and animals must be adapted to that environment.

- seeds disperse by a plant’s own mechanism and / or in a variety of ways that can include wind, water, and animals
- leaf, flower, stem and root adaptations may include variations in size, shape, thickness, color, smell, and texture
- animal adaptations include coloration for warning or attraction, camouflage, defense mechanisms, movement, hibernation, and migration

LE 5.1 Describe basic life functions of common living specimens (e.g., guppies, mealworms, gerbils)

5.1a All living things grow, take in nutrients, breathe, reproduce, and eliminate waste.

5.1b An organism’s external physical features can enable it to carry out life functions in its particular environment.

Grade 3**LE 5.2 Describe some survival behaviors of common living specimens.**

- 5.2a Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plants to grow; seeds germinate, and leaves form and grow.
- 5.2b Animals respond to change in their environment, (e.g., perspiration, heart rate, breathing rate, eye blinking, shivering, salivating).
- 5.2d Some animals, including humans, move from place to place to meet their needs.
- 5.2e Particular animal characteristics are influenced by changing environmental conditions including: fat storage in winter, coat thickness in winter, camouflage, shedding of fur.
- 5.2f Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating.

LE 6.1 Describe how plants and animals, including humans, depend on each other and the nonliving environment.

- 6.1f When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations.

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Plan to order Living Materials:

The FOSS® Program endorses the National Science Teachers Association Guidelines for Responsible Use of Animals in the Classroom as they apply to elementary classrooms. For information visit the link:

<http://lhsfoss.org/fossweb/teachers/materials/plantanimal/ethics.html>

Consult FOSS® Structures of Life Teacher Guide – Materials, Planning for Live Organisms p. 4

- Locate Live Materials Cards – Part Nos. 270-4184 (12 crayfish, 12 anacharis (Elodea water plant)) and 270-4420 (bess beetles) shipped to your school with the kits.
Note: All cards for FOSS® kits used in Units 3 & 4 were likely shipped in ONE large envelope that accompanied the kit boxes. Grades 3 and 6 cards need to be sorted by module title.
- New York City Schools will not do Investigation 4: Meet the Land Snail. Should you already have a colony of Land Snails or access to a colony, familiarize yourself with the US Dept. of Agriculture regulations and the issues surrounding the use of Land Snails in the classroom. Living materials cards for Land Snails are not available through Delta Education.
- Plan for seeds (included in kit) and fruit (not included in kit) for Investigation 1. See TG, Materials, p. 4 and the Investigation 1 folio.
- Plan to order crayfish so they arrive the week before you begin Structures of Life Investigation 3: Meet the Crayfish. Allow 4 weeks for delivery.
- Plan for arrival and care of crayfish, see TG, Materials p. 4; or follow the link <http://www.fossweb.com/modules3-6/StructuresofLife/index.html>
- Plan to order bess beetles so they arrive a few days before you begin Structures of Life Investigation 5: Bess Beetles. Allow 4 weeks for delivery.
Note: Bess Beetles currently are field collected — hence they are a valuable non-renewable resource. Maintaining the colony in the classroom through their natural lifespan is desirable. Adult bess beetles live 12-14 months, however you will not know the age of the beetles that you receive. Consider sharing populations among teachers in your school.
- Plan for arrival and care of bess beetles, see TG, Materials p. 4; or follow the link <http://www.fossweb.com/modules3-6/StructuresofLife/index.html>
- Suggestion: When ordering multiple sets of organisms for different classrooms, consider varying the shipment arrival dates. Should problems arise with a shipment, the second shipment will be on its way while you notify Delta Education Customer Service of your problem.
- **IMPORTANT! – Retain the “Living Materials Warranty Information” brochure & Packing Slip that is shipped with your order for information on unpacking your order, and resolving problems of shortages or damage.** Claims must be submitted within 48 hours of receipt of your order.
- **REMEMBER! – Do not release any living organisms into your local environment.** Any non-native organism (plant or animal) has the potential to destroy the ecological balance of your local environment.

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	<p>Lesson 1 (45 min) Objective(s): Survey / Pre-assessment.</p>	<p>Alignment with NYS Core Curriculum: LE 3.1a, b, c, 5.1a, b, 5.2a, f</p>	
WEEK 1	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Note: Administration of the Survey should be a few days BEFORE the start of the unit. – Teacher Guide, Benchmark Assessment Folio, pp. 1-19, 60. – Download optional tool: Benchmark and I-Check Assessment coding sheets at www.fossweb.com/NYC. – Kit preparation: see Teacher Guide, Materials, pp 1-7 and Teacher Preparation Video or DVD (or view at www.fossweb.com/NYC). – Note: see Teacher Guide, Materials, p. 3 for Materials Supplied by the Teacher and Materials from the Structures of Life Tool Kit. – Fruits are needed for Inv. 1, Part 1: Seed Search, Getting Ready Step 10 Bean Pods are needed for Lesson 2 Assorted fruits are needed for Lesson 3. – Plan ahead: Order Animals for Investigations 3 & 5. – Gather decaying deciduous hardwood (enough to fill a shoebox) for the bess beetle habitat. – Review the Overview folio of the Teacher Guide taking special note of p. 3: Science Background; p.18: Module Matrix. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Benchmark Assessment Packet, Survey/Posttest pages 1-4 – Letter to Parents, Teacher Sheet No.1 <p>Note: The Letter to Parents in your Teacher Guide refers to students taking care of crayfish and land snails. Hand correct your letter to read “crayfish and bess beetles” or download an alternate version of the Letter to Parents from the FOSS website.</p> <p><i>Log on to www.fossweb.com/nyc. Go to Grade 3, click on Structures of Life. Click on “For Parents and Teachers”, click on “Tips and Tricks.” Scroll down to “Letter to Parents: For Classes using Bess Beetles instead of Snails,” and click on the link to download the PDF file of Investigation Duplication Master 1A.</i></p>	<p style="text-align: center;">Homework/Extra Practice</p>

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WEEK 1 (continued)	<p>Lesson 2 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Seeds develop in the plant part called a fruit. • Different kinds of fruits have different kinds and numbers of seeds. • Seeds have a variety of properties. 		<p>Alignment with NYS Core Curriculum: LE 3.1b</p>	
	<p>Advanced Planning/ Notes to Teacher</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: Origin of Seeds pp. 1-7. – Teacher Guide Inv. 1: Origin of Seeds, Part 1: Seed Search, Materials and Getting Ready pp. 8-12. – Teacher Guide Science Stories folio, pp 1-3. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: <i>Origin of Seeds</i> Part 1: <i>Seed Search</i>, # 1-6 – Teacher Guide pages 13-14 – Investigation Duplication Master: Teacher Sheet No. 1 – Investigation Duplication Master: Student Sheet No. 2 – Assessment Duplication Master No. 1: Assessment Chart for Investigation 1, Part 1 – Teacher Observation 	<p>Homework/Extra Practice</p>	
	<p>Lesson 3 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Seeds develop in the plant part called a fruit. • Different kinds of fruits have different kinds and numbers of seeds. • Seeds have a variety of properties. 		<p>Alignment with NYS Core Curriculum: LE 3.1b</p>	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: Origin of Seeds pp. 1-7. – Teacher Guide Inv. 1: Origin of Seeds, Part 1: Seed Search, Materials and Getting Ready pp. 8-12. – Teacher Guide Science Stories folio, pp 1-3. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: Origin of Seeds Part 1: Seed Search, # 7-14 – Teacher Guide pages 15-17 – Investigation Duplication Master: Student Sheet No. 2 – Assessment Duplication Master No. 1: Assessment Chart for Investigation 1, Part 1 – Teacher Observation 	<p>Homework/Extra Practice</p>	

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WEEK 1 (continued)	Lesson 4 (45 min) Objective(s): <ul style="list-style-type: none"> • Seeds develop in the plant part called a fruit. • Different kinds of fruits have different kinds and numbers of seeds. • Seeds have a variety of properties. 		Alignment with NYS Core Curriculum: LE 3.1b
	Advanced Planning/ Notes to Teacher <ul style="list-style-type: none"> – Teacher Guide Inv. 1: Origin of Seeds pp. 1-7. – Teacher Guide Inv. 1: Origin of Seeds, Part 1: Seed Search, Materials and Getting Ready pp. 8-12. – Teacher Guide Science Stories folio, pp. 1-3. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	Investigation/Activity <ul style="list-style-type: none"> – Investigation 1: Origin of Seeds Part 1: Seed Search, # 15 – Teacher Guide pages 17 – Assessment Duplication Master No. 1: Assessment Chart for Investigation 1, Part 1 – Teacher Observation – FOSS <i>Science Stories: Seeds are Everywhere!</i>, pages 1-3 	Homework/Extra Practice Home/School Connection Student Sheet No. 28

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Note: Plan for long-term observations. Students observe plant growth and animal behaviors over several weeks. Plant Growth Charts and Animal Behavior Logs should remain with the hydroponic containers and habitats. In situations where several classes visit a cluster teacher in a science classroom the teacher may prefer to have classes share plants and animals. Conversely, in schools where the cluster teacher travels, the organisms will need to reside in the Grade 3 classroom and daily care and maintenance will be under the supervision of the classroom teacher.

	<p>Lesson 5 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Seeds undergo changes in the presence of water. • A seed is an organism, a living thing. 	<p>Alignment with NYS Core Curriculum: LE 3.1b, 5.1b, 5.2a</p>	
WEEK 2	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: Origin of Seeds pp. 1-7. – Teacher Guide Inv. 1: Origin of Seeds, Part 2: The Sprouting Seed, Materials and Getting Ready pp. 18-21. – Teacher Guide Science Stories folio, pp. 4-5. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: Origin of Seeds Part 2: The Sprouting Seed, # 1-15 – Teacher Guide pages 22-26 – Investigation Duplication Master: Student Sheet No. 3, 4, 5 – Assessment Duplication Master No. 1: Assessment Chart for Investigation 1, Part 2 – Response Sheet, Origin of Seeds Assessment Rubric: Assessment Folio, p.6 	<p style="text-align: center;">Homework/Extra Practice</p>

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WEEK 2 (continued)	<p>Lesson 6 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Seeds undergo changes in the presence of water. • A seed is an organism, a living thing. 	<p>Alignment with NYS Core Curriculum: LE 3.1b, 5.1b, 5.2a</p>	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: Origin of Seeds pp. 1-7. – Teacher Guide Inv. 1: Origin of Seeds, Part 2: The Sprouting Seed, Materials and Getting Ready pp. 18-21. – Teacher Guide Science Stories folio, pp. 4-5. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: Origin of Seeds Part 2: <i>The Sprouting Seed</i>, # 16-17 – Teacher Guide pages 26-27 – Investigation Duplication Master: Student Sheet No. 3, 4, 5 – Assessment Duplication Master No. 1: Assessment Chart for Investigation 1, Part 2 – Response Sheet, Origin of Seeds – Assessment Rubric: Assessment Folio, p.6 <p>NOTE: Students observe and record changes in sprouting seeds over 6 days.</p>	<p style="text-align: center;">Homework/Extra Practice</p> <p>Math Extension, Student Sheet No. 24</p> <p>Suggestion: Use manipulatives to represent the nuts as you solve the problems.</p>

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WEEK 2 (continued)	Lesson 7 (45 min) Objective(s): <ul style="list-style-type: none"> • Seeds undergo changes in the presence of water. • A seed is an organism, a living thing. 		Alignment with NYS Core Curriculum: LE 3.1b, 5.1b, 5.2a
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> – Teacher Guide Inv. 1: Origin of Seeds pp. 1-7 – Teacher Guide Inv. 1: Origin of Seeds, Part 2: The Sprouting Seed, Materials and Getting Ready pp. 18-21. – Teacher Guide Science Stories folio, pp 4-5 – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	Investigation/Activity <ul style="list-style-type: none"> – Investigation 1: <i>Origin of Seeds</i> Part 2: <i>The Sprouting Seed</i>, # 16 –<i>Observation Day 1</i> – Investigation 1: <i>Origin of Seeds</i> Part 2: <i>The Sprouting Seed</i>, # 18-20 – Teacher Guide pages 27 – Investigation Duplication Master: Student Sheet No. 3, 4, 5 – Assessment Duplication Master No. 1: Assessment Chart for Investigation 1, Part 2 – Response Sheet, <i>Origin of Seeds</i> Assessment Rubric: Assessment Folio, p.6 – <i>FOSS Science Stories: The Most Important Seed</i>, pp. 4-5 	Homework/Extra Practice

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WEEK 2 (continued)	<p>Lesson 8 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Seeds undergo changes in the presence of water. • A seed is an organism, a living thing. • A seed contains the embryo plant and stores food and water. • When seeds are soaked in water, they become bigger and heavier. 	<p>Alignment with NYS Core Curriculum: LE 3.1b, 5.1b, 5.2a</p>	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: Origin of Seeds pp. 1-7. – Teacher Guide Inv. 1: Origin of Seeds, Part 3: Seed Soak, Materials and Getting Ready pp. 28-29. – Teacher Guide Science Stories folio, pp. 6-7. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: <i>Origin of Seeds</i> Part 2: <i>The Sprouting Seed</i>, # 16 – <i>Observation Day 2</i> – Investigation 1: <i>Origin of Seeds</i> Part 3: <i>Seed Soak</i>, # 1-7 – Teacher Guide pages 30-31 – Investigation Duplication Master: Student Sheet No. 6 – Assessment Duplication Master No. 1: Assessment Chart for Investigation 1, Part 3 – Teacher Observation <i>Assessment Rubric: Assessment Folio, p.7</i> 	<p style="text-align: center;">Homework/Extra Practice</p> <p>Identify (as best you can) and research a seed you collected for the Home School Connection. Try to discover how that type of seed might be dispersed (by wind, water, animals or humans).</p>
<p>Sprouting Seed Observation (10 min) (REQUIRED)</p> <p>Investigation 1: Origin of Seeds Part 2: <i>The Sprouting Seed</i>, # 16 – Observation Day 3 Students make observation on their selected seed and record their observations on Investigation Duplication Master No. 4, “The Sprouting Seed”</p>			

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	<p>Lesson 9 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Seeds undergo changes in the presence of water. • A seed is an organism, a living thing. • A seed contains the embryo plant and stores food and water. • When seeds are soaked in water, they become bigger and heavier. 	<p>Alignment with NYS Core Curriculum: LE 3.1b, 5.1b, 5.2a</p>	
WEEK 3	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 1: Origin of Seeds pp. 1-7. – Teacher Guide Inv. 1: Origin of Seeds, Part 3: Seed Soak, Materials and Getting Ready pp. 28-29. – Teacher Guide Science Stories folio, pp. 6-7. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <p>Investigation 1: <i>Origin of Seeds</i> Part 2: <i>The Sprouting Seed</i>, # 16 – <i>Observation Day 4</i> Investigation 1: <i>Origin of Seeds</i> Part 3: <i>Seed Soak</i>, # 8-15 Teacher Guide pages 31-33 Investigation Duplication Master: Student Sheet No. 6 Assessment Duplication Master No. 1: Assessment Chart for Investigation 1, Part 3 – Teacher Observation <i>Assessment Rubric: Assessment Folio, p. 7</i></p>	<p style="text-align: center;">Homework/Extra Practice</p>

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WEEK 3 (continued)	Lesson 10 (45 min) Objective(s): <ul style="list-style-type: none"> • Seeds undergo changes in the presence of water. • A seed is an organism, a living thing. • A seed contains the embryo plant and stores food and water. • When seeds are soaked in water, they become bigger and heavier. 		Alignment with NYS Core Curriculum: LE 2.1a, 3.1b, 5.1b, 5.2a
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> – Teacher Guide Inv. 1: Origin of Seeds pp. 1-7. – Teacher Guide Inv. 1: Origin of Seeds, Part 3: Seed Soak, Materials and Getting Ready pp. 28-29. – Teacher Guide Science Stories folio, pp. 6-7. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	Investigation/Activity <ul style="list-style-type: none"> – Investigation 1: <i>Origin of Seeds</i> Part 2: <i>The Sprouting Seed</i>, # 16 – <i>Observation Day 5</i> – Investigation 1: <i>Origin of Seeds</i> Part 3: <i>Seed Soak</i>, # 16 – Teacher Guide pages 33 – Investigation Duplication Master: Student Sheet No. 6 – Assessment Duplication Master No. 1: Assessment Chart for Investigation 1, Part 3 – Teacher Observation <i>Assessment Rubric: Assessment Folio, p. 7</i> – <i>FOSS Science Stories: Barbara McClintock, pages 6-9</i> 	Homework/Extra Practice Set up plastic bag sprouters with extra lima beans. Review the resources and “Exploration” guidelines from <i>Growlab: Activities for Growing Minds, Lesson 1: Journey to the Center of a Seed</i> , at: http://www.kidsgardening.com/2006.kids.garden.news/jan/pg2.html

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WEEK 3 (continued)	<p>Lesson 11 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Seeds undergo changes in the presence of water. • A seed is an organism, a living thing. • Germination is the onset of a seeds growth. 	<p>Alignment with NYS Core Curriculum: LE 3.1b, 5.1b, 5.2a</p>		
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 2: Growing Further pp. 1-7. – Teacher Guide Inv. 1: Origin of Seeds, Part 1: Germination, Materials and Getting Ready pp. 8-10. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 1: <i>Origin of Seeds</i> Part 2: <i>The Sprouting Seed</i>, # 16 – <i>Observation Day 6</i> AND – Investigation 2: <i>Growing Further</i> Part 1: <i>Germination</i>, # 1-7 – Teacher Guide pages 11-12 – Investigation Duplication Master: Student Sheet No. 7 – Assessment Duplication Master No. 2: Assessment Chart for Investigation 2, Part 1 – Teacher Observation <i>Assessment Rubric: Assessment Folio, p. 8</i> 	<p>Homework/Extra Practice</p>	
	<p>Lesson 12 (45 min) Objective(s): Germination is the onset of a seed’s growth.</p>	<p>Alignment with NYS Core Curriculum: LE 5.2a</p>		
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 2: Growing Further pp. 1-7. – Teacher Guide Inv. 2: Growing Further, Part 1: Germination, Materials and Getting Ready pp. 8-10. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 2: <i>Growing Further</i> Part 1: <i>Germination</i>, # 8-9 – Teacher Guide pages 13 – Investigation Duplication Master: Student Sheet No. 7 – Assessment Duplication Master No. 2: Assessment Chart for Investigation 2, Part 1 – Teacher Observation <i>Assessment Rubric: Assessment Folio, p. 8</i> 	<p>Homework/Extra Practice Math Extension, Student Sheet No. 25</p>	

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NOTE	<p>Development of the Bean Plant from seedling to the production and harvesting of bean pods will take approximately 2 months. Plan ahead to ensure the completion of the experiment and recording of observations. Flower development will take 25-30 days (Plants will have 11-14 leaves and be 40-50 cm tall.).</p> <p>“Beans produce perfect, self-pollinating flowers. Cross pollination by insects is possible but rare as pollination occurs before the flower opens. Because the anthers are pushed up against the stigma, automatic pollination is assured when the anthers open.”</p> <p>See: International Seed Saving Institute: http://www.seedsave.org/issi/904/beginner.html</p> <p>Plants should be maintained providing adequate light and warmth (see Teacher Guide, Investigation 2, pp. 15 and 20) for 50-60 days until bean pods are harvested.</p>		
	<p>Lesson 13 (45 min) Objective(s):</p> <ul style="list-style-type: none"> Plants need water, light, and nutrients to grow. Plants can grow in water if nutrients are added. 	<p>Alignment with NYS Core Curriculum: LE 3.1b</p>	
WEEK 4	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> Teacher Guide Inv. 2: Growing Further pp. 1-7. Teacher Guide Inv. 2: Growing Further, Part 2: Hydroponics, Materials and Getting Ready pp. 14-15. Teacher Guide Science Stories folio, pp. 8-9. www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> Investigation 2: <i>Growing Further</i> Part 2: <i>Hydroponics</i>, # 1-5 Teacher Guide pages 16 Investigation Duplication Master: Student Sheet No. 8 Assessment Duplication Master No. 2: Assessment Chart for Investigation 2, Part 2 – Response Sheet, <i>Growing Further</i> <i>Assessment Rubric: Assessment Folio</i>, p. 9 	<p style="text-align: center;">Homework/Extra Practice</p>

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WEEK 4 (continued)	<p>Lesson 14 (45 min) Objective(s):</p> <ul style="list-style-type: none"> Plants need water, light, and nutrients to grow. Plants can grow in water if nutrients are added. 		<p>Alignment with NYS Core Curriculum: LE 3.1b</p>		
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> Teacher Guide Inv. 2: Growing Further pp. 1-7. Teacher Guide Inv. 2: Growing Further, Part 2: Hydroponics, Materials and Getting Ready pp. 14-15. Teacher Guide Science Stories folio, pp. 8-9. www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching <p>Structures of Life.</p>		<p>Investigation/Activity</p> <ul style="list-style-type: none"> Investigation 2: Growing Further Part 2: <i>Hydroponics</i>, # 6-8 Teacher Guide pages 16 Investigation Duplication Master: Student Sheet No. 8 Assessment Duplication Master No. 2: Assessment Chart for Investigation 2, Part 2 – Response Sheet, <i>Growing Further Assessment Rubric: Assessment Folio</i>, p.9 <i>FOSS Science Stories: Hydro-growing</i>, pp. 10-11 		<p>Homework/Extra Practice</p> <p>Compare plants grown in soil: Plant extra bush bean seedlings in soil to compare with the hydroponically grown plants.</p>
	<p>Lesson 15 (45 min) Objective(s):</p> <ul style="list-style-type: none"> Seeds develop in the plant part called a fruit. Different kinds of fruits have different kinds and numbers of seeds. Seeds have a variety of properties. Seeds undergo changes in the presence of water. A seed is an organism, a living thing. A seed contains the embryo plant and stores food and water. When seeds are soaked in water, they become bigger and heavier. 		<p>Alignment with NYS Core Curriculum: LE 3.1b, 5.1b, 5.2a</p>		
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> Teacher Guide, Benchmark Assessment Folio, pp. 20-27, 60. Plan Assessment Review time with class after teacher assessment coding. 		<p>Investigation/Activity</p> <p>Benchmark Assessment Packet, Investigation 1 I-Check, pages 1-4</p>		<p>Homework/Extra Practice</p> <p>Home/School Connection, Student Sheet No. 29</p>

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WEEK 4 (continued)	Lesson 16 (45 min) Objective(s): <ul style="list-style-type: none"> The life cycle is the process of a seed growing into a mature plant, which in turn produces seeds. The fruit of the plant develops from the flower. 		Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1b, c, 5.2a, 6.1f
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> Teacher Guide Inv. 2: Growing Further pp. 1-7. Teacher Guide Inv. 2: Growing Further, Part 3: Life Cycle of the Bean, Materials and Getting Ready pp. 18-19. Teacher Guide Science Stories folio, pp 10-11. www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	Investigation/Activity <ul style="list-style-type: none"> Investigation 2: <i>Growing Further</i> Part 3: <i>Life Cycle of the Bean</i>, # 1-3 Teacher Guide page 20 Investigation Duplication Master: Teacher Sheet No. 9 Investigation Duplication Master: Student Sheet No. 10 Assessment Duplication Master No. 2: Assessment Chart for Investigation 2, Part 3 – Student Sheet, <i>Bean Life Cycle</i> <i>Assessment Rubric: Assessment Folio, p.10</i> <p>The Investigation 2, Part 3: Life Cycle of the Bean Week 1 measurement is taken today. Continue to take weekly measurements of bean plants for 2 months. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p>	Homework/Extra Practice

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WEEK 5	Lesson 17 (45 min) Objective(s): Crayfish have observable structures such as legs, eyes, antennae, a carapace, swimmerets, a tail, pincers, and mouth parts.		Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, 5.1a, b NOTE: Pose direct questions to students to address standard LE 2.1 on inherited and acquired characteristics.	
	Advanced Planning/ Notes to Teachers – Teacher Guide Inv. 3: Meet the Crayfish pp. 1-7. – Teacher Guide Inv. 3: Meet the Crayfish, Part 1: Meet the Crayfish, Materials and Getting Ready pp. 8-11. – Teacher Guide Inv. 3: Classroom Vignette, p. 15. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life .	Investigation/Activity – Investigation 3: <i>Meet the Crayfish</i> Part 1: <i>Meet the Crayfish</i> , # 1-8 – Teacher Guide pages 12-14 – Investigation Duplication Master: Student Sheet No. 11, 12 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 1 – Student Sheet, <i>Crayfish Structures</i> <i>Assessment Rubric: Assessment Folio, p. 11</i> Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.		Homework/Extra Practice Label crayfish structures. Make a copy of Crayfish Diagrams (IDM No. 12) and have students write in the names of crayfish structures. Make a list of the words if you are sending this activity home.

Grade 3

	<p>Lesson 18 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Crayfish have particular requirements for life, including clean, cool water; food; and shelter. • Habitat is where an animal lives. 	<p>Alignment with NYS Core Curriculum: LE 3.1c, 5.1a, b, 5.2d, 6.1f</p>	
WEEK 5 (continued)	<p>Advanced Planning/Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 3: Meet the Crayfish pp. 1-7. – Teacher Guide Inv. 3: Meet the Crayfish, Part 2: Crayfish Habitat, Materials and Getting Ready pp. 16-17. – Teacher Guide Science Stories folio, pp. 12-13. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 3: <i>Meet the Crayfish</i> Part 2: <i>Crayfish Habitat</i>, # 1-8 – Teacher Guide pages 18-19 – Investigation Duplication Master: Student Sheet No. 13 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 2 – Teacher Observation <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Establish the Crayfish Log observation schedule. Different groups of students will observe and record crayfish behavior. Classes may share these observation duties. Continue to the end of the Structures of Life module.</p>	<p>Homework/Extra Practice</p>

Grade 3

WEEK 5 (continued)	<p>Lesson 19 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Crayfish have particular requirements for life, including clean, cool water; food; and shelter. • Habitat is where an animal lives. 		<p>Alignment with NYS Core Curriculum: LE 3.1a, c, 5.1a, b, 5.2d, 6.1f</p>
	<p>Advanced Planning/Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 3: Meet the Crayfish pp. 1-7. – Teacher Guide Inv. 3: Meet the Crayfish, Part 2: Crayfish Habitat, Materials and Getting Ready pp. 16-17. – Teacher Guide Science Stories folio, pp. 12-13. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 3: <i>Meet the Crayfish</i> Part 2: <i>Crayfish Habitat</i>, # 9-11 – Teacher Guide page19 – Investigation Duplication Master: Student Sheet No. 13 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 2 – Teacher Observation – <i>FOSS Science Stories: Answering Kids Questions</i>, p. 17-19 <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p> <p>Home School Connection Student Sheet No. 30</p>

Grade 3

WEEK 5 (continued)	Lesson 20 (45 min) Objective(s): Behavior is what an animal does.		Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, f, 6.1f NOTE: Pose direct questions to address standard LE 5.2b during crayfish observations.
	Advanced Planning/ Notes to Teachers – Teacher Guide Inv. 3: Meet the Crayfish pp. 1-7. – Teacher Guide Inv. 3: Meet the Crayfish, Part 3: Crayfish at Home, Materials and Getting Ready pp. 20-21. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life .	Investigation/Activity – Investigation 3: Meet the Crayfish Part 3: Crayfish at Home, # 1-7 – Teacher Guide pp. 22-23 – Investigation Duplication Master: Student Sheet No. 14, 15 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 3 – Response Sheet, Meet the Crayfish Assessment Rubric: Assessment Folio, p. 12 The Investigation 2, Part 3: Life Cycle of the Bean Week 2 measurement is taken today. Continue to take weekly measurements of bean plants for 2 months. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested. Observe and record crayfish behavior.	Homework/Extra Practice

Grade 3

WEEK 6	Lesson 21 (45 min) Objective(s): Behavior is what an animal does.		Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, f, 6.1f
	Advanced Planning/ Notes to Teachers – Teacher Guide Inv. 3: Meet the Crayfish pp. 1-7. – Teacher Guide Inv. 3: Meet the Crayfish, Part 4: Crayfish Territory, Materials and Getting Ready pp. 24-26. – Teacher Guide Science Stories folio, pp. 14-19. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life .	Investigation/Activity – Investigation 3: <i>Meet the Crayfish</i> Part 3: <i>Crayfish at Home</i> , # 8-9 – Teacher Guide pp. 22-23 – Investigation Duplication Master: Student Sheet No. 14, 15 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 3 – Response Sheet, <i>Meet the Crayfish</i> <i>Assessment Rubric: Assessment Folio</i> , p. 12 Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested. Observe and record crayfish behavior.	Homework/Extra Practice Determine the mass of each crayfish. Reweigh them periodically to see if there is a change in mass.

Grade 3

WEEK 6 (continued)	Lesson 22 (45 min) Objective(s): Some animals claim a territory that they protect from other animals.		Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, f, 6.1f
	Advanced Planning/ Notes to Teachers – Teacher Guide Inv. 3: Meet the Crayfish pp. 1-7. – Teacher Guide Inv. 3: Meet the Crayfish, Part 4: Crayfish Territory, Materials and Getting Ready pp. 24-26. – Teacher Guide Science Stories folio, pp. 14-19. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life .	Investigation/Activity – Investigation 3: <i>Meet the Crayfish</i> Part 4: <i>Crayfish Territory</i> , # 1-7 – Teacher Guide pp. 27-28 – Investigation Duplication Master: Student Sheet No. 16 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 4 – Teacher Observation Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested. Observe and record crayfish behavior.	Homework/Extra Practice

Grade 3

WEEK 6 (continued)	<p>Lesson 23 (45 min) Objective(s): Some animals claim a territory that they protect from other animals.</p>	<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, f, 6.1f</p>	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 3: Meet the Crayfish pp. 1-7. – Teacher Guide Inv. 3: Meet the Crayfish, Part 4: Crayfish Territory, Materials and Getting Ready pp. 24-26. – Teacher Guide Science Stories folio, pp. 14-19. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 3: <i>Meet the Crayfish</i> Part 4: <i>Crayfish Territory</i>, # 1-7, 14 – Teacher Guide pp. 27-28 – Investigation Duplication Master: Student Sheet No. 16 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 4 – Teacher Observation – <i>FOSS Science Stories: Life Cycle of a Crayfish</i>, pp. 20-21 <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 3

	<p>Lesson 24 (45 min) Objective(s): Some animals claim a territory that they protect from other animals.</p>	<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, e, f, 6.1f</p>	
WEEK 6 (continued)	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 3: Meet the Crayfish pp. 1-7. – Teacher Guide Inv. 3: Meet the Crayfish, Part 4: Crayfish Territory, Materials and Getting Ready pp. 24-26. – Teacher Guide Science Stories folio, pp. 14-19. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 3: <i>Meet the Crayfish</i> Part 4: <i>Crayfish Territory</i>, # 1-7, 14 – Teacher Guide pp. 27-28 – Investigation Duplication Master: Student Sheet No. 16 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 4 – Teacher Observation – <i>FOSS Science Stories: Life on Earth</i>, pp. 22-34 <p>The Investigation 2, Part 3: Life Cycle of the Bean Week 3 measurement is taken today. Continue to take weekly measurements of bean plants for 2 months. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p> <p>Plan a “Crayfish Road Show.” See Interdisciplinary Extensions: Language Extensions, on page 31 of the Investigation 3 folio.</p>

Grade 3

WEEK 7	<p>Lesson 25 (45 min) Objective(s): Some animals claim a territory that they protect from other animals.</p>		<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, e, f, 6.1f</p>
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 3: Meet the Crayfish pp. 1-7. – Teacher Guide Inv. 3: Meet the Crayfish, Part 4: Crayfish Territory, Materials and Getting Ready pp. 24-26. – Teacher Guide Science Stories folio, pp. 14-19. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 3: <i>Meet the Crayfish</i> Part 4: <i>Crayfish Territory</i>, # 1-7 – Teacher Guide pp. 27-28 – Investigation Duplication Master: Student Sheet No. 16 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 4 – Teacher Observation – <i>FOSS Science Stories: Life on Earth</i>, pp. 22-34 <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 3

WEEK 7 (continued)	<p>Lesson 26 (45 min) Objective(s): Some animals claim a territory that they protect from other animals.</p>		<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2a, b, d, f, 6.1f</p>
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 3: Meet the Crayfish pp. 1-7. – Teacher Guide Inv. 3: Meet the Crayfish, Part 4: Crayfish Territory, Materials and Getting Ready pp. 24-26. – Teacher Guide Science Stories folio, pp. 14-19. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 3: <i>Meet the Crayfish</i> Part 4: <i>Crayfish Territory</i>, # 8-14 – Teacher Guide pp. 28-30 – Investigation Duplication Master: Student Sheet No. 16 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 4 – Teacher Observation – <i>FOSS Science Stories: A Change in the Environment</i>, pp. 35-36 <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p> <p>Math Extension, Student Sheet No. 26.</p>

Grade 3

WEEK 7 (continued)	<p>Lesson 27 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Crayfish have observable structures such as legs, eyes, antennae, a carapace, swimmerets, a tail, pincers, and mouth parts. • Crayfish have particular requirements for life, including clean, cool water; food; and shelter. • Habitat is where an animal lives. • Behavior is what an animal does. • Some animals claim a territory that they protect from other animals. 		<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, f, 6.1f</p>
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide, Benchmark Assessment Folio, pp. 36-43, 60. – Plan Assessment Review time with class after teacher assessment coding. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Benchmark Assessment Packet, Investigation 3 I-Check, pages 1-4 <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 3

WEEK 7 (continued)	<p>Lesson 28 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Seeds develop in the plant part called a fruit. • Different kinds of fruits have different kinds and numbers of seeds. • Seeds have a variety of properties. • Seeds undergo changes in the presence of water. • A seed is an organism, a living thing. • A seed contains the embryo plant and stores food and water. • When seeds are soaked in water, they become bigger and heavier. • Crayfish have observable structures such as legs, eyes, antennae, a carapace, swimmerets, a tail, pincers, and mouth parts. • Crayfish have particular requirements for life, including clean, cool water; food; and shelter. • Habitat is where an animal lives. • Behavior is what an animal does. • Some animals claim a territory that they protect from other animals. 		<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, b, c, 5.1a, b, 5.2a, b, d, e, f, 6.1f</p>
	<p>Advanced Planning/ Notes to Teachers Teacher Guide, Benchmark Assessment Folio, pp. 20-27, 36-43, 60.</p>	<p style="text-align: center;">Investigation/Activity</p> <p>– Benchmark Assessment Review, Investigations 1 & 3 I-Check, pages 1-4</p> <p>The Investigation 2, Part 3: Life Cycle of the Bean Week 4 measurement is taken today. Continue to take weekly measurements of bean plants for 2 months. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested. <i>Look for FLOWER DEVELOPMENT.</i></p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 3

	<p>Lesson 29 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Bess beetles are insects, with six legs, three body parts, antennae, and a variety of other structures. • Bess beetles need water, food, air, and space. 	<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, 5.1a, b, 5.2b, d, f, 6.1f</p>	
WEEK 8	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 5: Bess Beetles pp. 1-7. – Teacher Guide Inv. 5: Bess Beetles, Part 1: Bess Beetles at Home, Materials and Getting Ready pp. 8-9. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching <p>Structures of Life.</p> <ul style="list-style-type: none"> – Gather decaying deciduous hardwood (enough to fill a shoebox) to supply the bess beetle habitats. <i>Organic or NON-TREATED hardwood mulch can be used if decaying hardwoods cannot be field collected. Soak the mulch in treated tap water to hydrate before putting in the habitat.</i> 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 5: <i>Bess Beetles</i> Part 1: <i>Bess Beetles at Home</i>, # 1-10 – Teacher Guide pp. 10-12 – Investigation Duplication Master: Student Sheet No. 16 – Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 4 – Teacher Observation <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Continue to observe and record crayfish behavior or plan for a new crayfish home. Refer to the “Guidelines for Living Materials” brochure received with your living materials shipment or visit</p> <p>NOTE: Review Background for the Teacher pp. 4-6, especially noting the segmented thorax of the bess beetle, common to the Order: Coleoptera. See: http://www.lawrencehallofscience.org/foss/newsletters/archive/FOSS21.BessBeetles.html and http://en.wikipedia.org/wiki/Odontotaenius_disjunctus</p> <p style="text-align: center;">Homework/ Extra Practice</p>	

Grade 3

	<p>Lesson 30 (45 min)</p> <p>Objective(s):</p> <ul style="list-style-type: none"> Bess beetles are insects, with six legs, three body parts, antennae, and a variety of other structures. Bess beetles need water, food, air, and space. 	<p>Alignment with NYS Core Curriculum:</p> <p>LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, f, 6.1f</p>	
WEEK 8 (continued)	<p>Advanced Planning/Notes to Teachers</p> <ul style="list-style-type: none"> Teacher Guide Inv. 5: Bess Beetles pp. 1-7. Teacher Guide Inv. 5: Bess Beetles, Part 1: Bess Beetles at Home, Materials and Getting Ready pp. 8-9. www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. Gather decaying deciduous hardwood (enough to fill a shoebox) to supply the bess beetle habitats. <i>Organic or NON-TREATED hardwood mulch can be used if decaying hardwoods cannot be field collected. Soak the mulch in treated tap water to hydrate before putting in the habitat.</i> 	<p>Investigation/Activity</p> <ul style="list-style-type: none"> Investigation 5: <i>Bess Beetles</i> Part 1: <i>Bess Beetles at Home</i>, # 11-13 Teacher Guide pp. 10-12 Investigation Duplication Master: Student Sheet No. 16 Assessment Duplication Master No. 3: Assessment Chart for Investigation 3, Part 4 – Teacher Observation <i>FOSS Science Stories: The Life of Bess Beetles</i>, pp. 30 of the Investigation 5 folio in the Teacher Guide <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p>Homework/Extra Practice</p> <p>Math Extension, Student Sheet No. 27.</p>

Grade 3

	<p>Lesson 31 (45 min) Objective(s): The structures found on different kinds of organisms show some similarities and some differences.</p>	<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, f, 6.1f</p>	
WEEK 8 (continued)	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 5: Bess Beetles pp. 1-7. – Teacher Guide Inv. 5: Bess Beetles, Part 2: Comparing Crayfish and Beetles, Materials and Getting Ready pp.13-14. – Teacher Guide Science Stories folio, pp. 20-21. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 5: <i>Bess Beetles</i> Part 2: <i>Comparing Crayfish and Beetles</i>, # 1-6 – Teacher Guide pp. 16-18 – Investigation Duplication Master: Student Sheet No. 20 (optional), 32, 33 – Assessment Duplication Master No. 4: Assessment Chart for Investigation 4, Part 2 – Response Sheet, <i>Meet the Land Snail (optional)</i> Assessment Rubric: Assessment Folio, p.13 – <i>FOSS Science Stories: A Snail’s Journey</i>, pp. 37-40 <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 3

WEEK 8 (continued)	<p>Lesson 32 (45 min) Objective(s): The structures found on different kinds of organisms show some similarities and some differences.</p>	<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, f, 6.1f</p>	
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 5: Bess Beetles pp. 1-7. – Teacher Guide Inv. 5: Bess Beetles, Part 2: Comparing Crayfish and Beetles, Materials and Getting Ready pp.13-14. – Teacher Guide Science Stories folio, pp. 22-23. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 5: Bess Beetles Part 2: Comparing Crayfish and Beetles, # 7-15 – Teacher Guide pp. 16-18 – Investigation Duplication Master: Student Sheet No. 20 (optional), 32, 33 – Assessment Duplication Master No. 4: Assessment Chart for Investigation 4, Part 2 – Response Sheet, <i>Meet the Land Snail (optional)</i> Assessment Rubric: Assessment Folio, p.13 – <i>FOSS Science Stories: Crayfish, Snails and Kids, pp. 41-42</i> <i>The Food Web, p. 43</i> <p>The Investigation 2, Part 3: Life Cycle of the Bean Week 5 measurement is taken today. Continue to take weekly measurements of bean plants for 2 months. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p> <p>Consider Step 11 (p.17) as a homework assignment.</p>

Grade 3

	<p>Lesson 33 (45 min) Objective(s):</p> <ul style="list-style-type: none"> An organism's structures have functions that help it survive in its habitat. We must take care not to harm animals as we learn about them. 	<p>Alignment with NYS Core Curriculum: LE 2.1a, 3.1a, c, 5.1b, 5.2b, d, f, 6.1f</p>	
WEEK 9	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> Teacher Guide Inv. 5: Bess Beetles pp. 1-7. Teacher Guide Inv. 5: Bess Beetles, Part 3: The Beetle Pull, Materials and Getting Ready pp.19-20. Teacher Guide Science Stories folio, pp. 24-27. www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> Investigation 5: <i>Bess Beetles</i> Part 3: <i>The Beetle Pull</i>, # 1-12 Teacher Guide pp. 21-23 Assessment Duplication Master No. 4: Assessment Chart for Investigation 4, Part 3 – Teacher Observation, <i>Modify chart for entry if needed. See Step 2 of Getting Ready for criteria.</i> Assessment Rubric: Assessment Folio, <i>FOSS Science Stories: A Chance Encounter</i>, p. 44 <i>Life in Los Angeles</i>, pp. 45-48 <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p> <p>Refer to the Venn Diagram from Part 2, Step 9. Write 4 sentences to describe the data in the Venn Diagram.</p>
<p>NOTE</p>	<p>FOSS® encourages the use of student projects in Choosing Your Own Investigation. Students develop investigation plans, do systematic work to complete investigations and support conclusions with evidence. While it may not be possible to complete projects in every FOSS® unit, creative management and interdisciplinary opportunities will allow students to gain experience in manageable independent projects. Examine the Project Ideas (Student Sheet No. 21) for ideas for individual, group or class projects. Interdisciplinary Extensions are also appropriate research projects.</p> <p>In FOSS® Structures of Life SIX LESSONS (Lesson 34 through 39) include work to complete Investigation 5: Bess Beetles, Part 4: Choosing Your Own Investigation.</p> <p>Time spent on Investigation 5: Bess Beetles, Part 4: Choosing Your Own Investigation may be adjusted to allow for completion of Investigation 2: Growing Further, Part 3: Life Cycle of the Bean (Lessons 41-43). Lessons 40 and 44 are not altered by these decisions.</p>		

Grade 3

WEEK 9 (continued)	Lesson 34 (45 min) Objective(s): Using questions and ideas for projects they suggested throughout the module, students choose a project to research or investigate.		Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, b, c, 5.1a, b, 5.2a, b, d, e, f, 6.1f
	Advanced Planning/ Notes to Teachers – Teacher Guide Inv. 5: Bess Beetles pp. 1-7. – Teacher Guide Inv. 5: Bess Beetles, Part 4: Choosing Your Own Investigation, Materials and Getting Ready pp. 25-27. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life .	Investigation/Activity – Investigation 5: Bess Beetles Part 4: <i>Choosing Your Own Investigation</i> , # 1-4 – Teacher Guide pp. 21-23 – Investigation Duplication Master: Student Sheet No. 21, 22, 23 – Assessment Duplication Master No. 4: Assessment Chart for Investigation 4, Part 4 – Assessment Rubric: Assessment Folio, pp. 14-15 Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested. Observe and record crayfish behavior.	Homework/Extra Practice

Grade 3

WEEK 9 (continued)	Lesson 35 (45 min) Objective(s): Using questions and ideas for projects they suggested throughout the module, students choose a project to research or investigate.		Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, b, c, 5.1a, b, 5.2a, b, d, e, f, 6.1f
	Advanced Planning/ Notes to Teachers – Teacher Guide Inv. 5: Bess Beetles pp. 1-7. – Teacher Guide Inv. 5: Bess Beetles, Part 4: Choosing Your Own Investigation, Materials and Getting Ready pp. 25-27. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life .	Investigation/Activity – Investigation 5: Bess Beetles Part 4: <i>Choosing Your Own Investigation</i> , # 1-4 – Teacher Guide pp. 21-23 – Investigation Duplication Master: Student Sheet No. 21, 22, 23 – Assessment Duplication Master No. 4: Assessment Chart for Investigation 4, Part 4 – Assessment Rubric: Assessment Folio, pp. 14-15 Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested. Observe and record crayfish behavior.	Homework/Extra Practice

Grade 3

	<p>Lesson 36 (45 min) Objective(s): Using questions and ideas for projects they suggested throughout the module, students choose a project to research or investigate.</p>	<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, b, c, 5.1a, b, 5.2a, b, d, e, f, 6.1f</p>	
WEEK 9 (continued)	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 5: Bess Beetles pp. 1-7. – Teacher Guide Inv. 5: Bess Beetles, Part 4: Choosing Your Own Investigation, Materials and Getting Ready pp. 25-27. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 5: Bess Beetles Part 4: <i>Choosing Your Own Investigation</i>, # 1-4 – Teacher Guide pp. 21-23 – Investigation Duplication Master: Student Sheet No. 21, 22, 23 – Assessment Duplication Master No. 4: Assessment Chart for Investigation 4, Part 4 – Assessment Rubric: Assessment Folio, pp. 14-15 <p>The Investigation 2, Part 3: Life Cycle of the Bean Week 6 measurement is taken today. Continue to take weekly measurements of bean plants for 2 months. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 3

	<p>Lesson 37 (45 min) Objective(s): Using questions and ideas for projects they suggested throughout the module, students choose a project to research or investigate.</p>	<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, b, c, 5.1a, b, 5.2a, b, d, e, f, 6.1f</p>	
WEEK 10	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 5: Bess Beetles pp. 1-7. – Teacher Guide Inv. 5: Bess Beetles, Part 4: Choosing Your Own Investigation, Materials and Getting Ready pp. 25-27. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 5: Bess Beetles Part 4: <i>Choosing Your Own Investigation</i>, # 1-4 – Teacher Guide pp. 21-23 – Investigation Duplication Master: Student Sheet No. 21, 22, 23 – Assessment Duplication Master No. 4: Assessment Chart for Investigation 4, Part 4 – Assessment Rubric: Assessment Folio, pp. 14-15 <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p> <p>Practice your 3 minute project presentation at home. Be sure to send home IDM No. 23, <i>Presentation Guidelines</i></p>

Grade 3

WEEK 10 (continued)	<p>Lesson 38 (45 min) Objective(s): Using questions and ideas for projects they suggested throughout the module, students choose a project to research or investigate.</p>		<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, b, c, 5.1a, b, 5.2a, b, d, e, f, 6.1f</p>
	<p>Advanced Planning/ Notes to Teachers – Teacher Guide Inv. 5: Bess Beetles pp. 1-7. – Teacher Guide Inv. 5: Bess Beetles, Part 4: Choosing Your Own Investigation, Materials and Getting Ready pp. 25-27. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life.</p>	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 5: Bess Beetles Part 4: <i>Choosing Your Own Investigation</i>, # 5-6 – Teacher Guide pp. 21-23 – Investigation Duplication Master: Student Sheet No. 21, 22, 23 – Assessment Duplication Master No. 4: Assessment Chart for Investigation 4, Part 4 – Assessment Rubric: Assessment Folio, pp. 14-15 <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 3

	<p>Lesson 39 (45 min) Objective(s): Using questions and ideas for projects they suggested throughout the module, students choose a project to research or investigate.</p>	<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, b, c, 5.1a, b, 5.2a, b, d, e, f, 6.1f</p>	
WEEK 10 (continued)	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide Inv. 5: Bess Beetles pp. 1-7. – Teacher Guide Inv. 5: Bess Beetles, Part 4: Choosing Your Own Investigation, Materials and Getting Ready pp. 25-27. – www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Investigation 5: Bess Beetles Part 4: <i>Choosing Your Own Investigation</i>, # 7 – Teacher Guide pp. 21-23 – Investigation Duplication Master: Student Sheet No. 21, 22, 23 – Assessment Duplication Master No. 4: Assessment Chart for Investigation 4, Part 4 – Assessment Rubric: Assessment Folio, pp. 14-15 <p>Keep track of the weekly measurements of bean plants. If your teaching schedule is altered you will need to recalculate the Lesson during which measurements are recorded. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 3

WEEK 10 (continued)	<p>Lesson 40 (45 min) Objective(s):</p> <ul style="list-style-type: none"> • Bess beetles are insects, with six legs, three body parts, antennae, and a variety of other structures. • Bess beetles need water, food, air, and space. • The structures found on different kinds of organisms show some similarities and some differences. • An organism’s structures have functions that help it survive in its habitat. • We must take care not to harm animals as we learn about them. • Using questions and ideas for projects they suggested throughout the module, students choose a project to research or investigate. 		<p>Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1a, c, 5.1a, b, 5.2b, d, e, f, 6.1f</p>
	<p>Advanced Planning/ Notes to Teachers</p> <ul style="list-style-type: none"> – Teacher Guide, Benchmark Assessment Folio, pp. 52-59, 60. – Plan Assessment Review time with class after teacher assessment coding. 	<p style="text-align: center;">Investigation/Activity</p> <ul style="list-style-type: none"> – Benchmark Assessment Packet, Investigation 4 I-Check, pages 1-4 <p>The Investigation 2, Part 3: Life Cycle of the Bean Week 7 measurement is taken today. Continue to take weekly measurements of bean plants for 2 months. Return to Investigation 2, Part 3, Steps 4-9 when bean pods can be harvested.</p> <p>Observe and record crayfish behavior.</p>	<p style="text-align: center;">Homework/Extra Practice</p>

Grade 3

WEEK 11 (continued)	Lesson 41 (45 min) Objective(s): <ul style="list-style-type: none"> The life cycle is the process of a seed growing into a mature plant, which in turn produces seeds. The fruit of the plant develops from the flower. 		Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1b, c, 5.2a, 6.1f
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> Teacher Guide Inv. 2: Growing Further pp. 1-7. Teacher Guide Inv. 2: Growing Further, Part 3: Life Cycle of the Bean, Materials and Getting Ready pp. 18-19. Teacher Guide Science Stories folio, pp. 10-11. www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	Investigation/Activity <ul style="list-style-type: none"> Investigation 2: <i>Growing Further</i> Part 3: <i>Life Cycle of the Bean</i>, # 4-6 Teacher Guide page 20 Investigation Duplication Master: Teacher Sheet No. 9 Investigation Duplication Master: Student Sheet No. 10 Assessment Duplication Master No. 2: Assessment Chart for Investigation 2, Part 3 – Student Sheet, <i>Bean Life Cycle</i> <i>Assessment Rubric: Assessment Folio, p. 10</i> 	Homework/Extra Practice Review seeds as a food source. Make a list of seeds eaten by humans.

Grade 3

WEEK 11 (continued)	Lesson 42 (45 min) Objective(s): <ul style="list-style-type: none"> The life cycle is the process of a seed growing into a mature plant, which in turn produces seeds. The fruit of the plant develops from the flower. 		Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1b, c, 5.2a, 6.1f
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> Teacher Guide Inv. 2: Growing Further pp. 1-7. Teacher Guide Inv. 2: Growing Further, Part 3: Life Cycle of the Bean, Materials and Getting Ready pp. 18-19. Teacher Guide Science Stories folio, pp. 10-11. www.fossweb.com/NYC – Check website for interactive simulations, to write questions to a scientist, for teaching tips, and other websites to support teaching Structures of Life. 	Investigation/Activity <ul style="list-style-type: none"> Investigation 2: <i>Growing Further</i> Part 3: <i>Life Cycle of the Bean</i>, # 7-9 Teacher Guide page 20 Investigation Duplication Master: Teacher Sheet No. 9 Investigation Duplication Master: Student Sheet No. 10 Assessment Duplication Master No. 2: Assessment Chart for Investigation 2, Part 3 – Student Sheet, <i>Bean Life Cycle</i> <i>Assessment Rubric: Assessment Folio, p. 10</i> <i>FOSS Science Stories: Seeding Space, pp. 12-16</i> 	Homework/Extra Practice Write 4 sentences to describe the data in the <i>Plant Growth Chart</i> .

Grade 3

WEEK 11 (continued)	Lesson 43 (45 min) Objective(s): <ul style="list-style-type: none"> • Germination is the onset of a seed’s growth. • Plants need water, light, and nutrients to grow. • Plants can grow in water if nutrients are added. • The life cycle is the process of a seed growing into a mature plant, which in turn produces seeds. • The fruit of the plant develops from the flower. 		Alignment with NYS Core Curriculum: LE 2.1a, b, 3.1b, c, 5.2a, 6.1f
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> – Teacher Guide, Benchmark Assessment Folio, pp. 28-35, 60. – Plan Assessment Review time with class after teacher assessment coding. 	Investigation/Activity Benchmark Assessment Packet, Investigation 2 I-Check, pages 1-4	Homework/Extra Practice Write 4 sentences to describe the data in the <i>Plant Growth Chart</i> .
	Lesson 44 (45 min) Objective(s):		Alignment with NYS Core Curriculum: LE 3.1a, b, c, 5.1a, b, 5.2a, f
	Advanced Planning/ Notes to Teachers <ul style="list-style-type: none"> – Teacher Guide, Benchmark Assessment Folio, pp. 1-19, 60. – Download optional tool: Benchmark and I-Check Assessment coding sheets at www.fossweb.com/NYC. 	Investigation/Activity Benchmark Assessment Packet, Survey/Posttest, pp. 1-4	Homework/Extra Practice