

# CHECKLIST OF CA SCIENCE STANDARDS FOR GRADE 1 PLANTS AND ANIMALS

## **PURPOSE**

The checklist is

- A sequential listing of instructional activities through each module.
- A place to document teaching and coverage of CA standards.
- A correlation tool showing where each CA standard is addressed.

**Instructional sequence.** The Checklist displays the sequence of instruction as the module progresses through 1) active investigation, 2) reading, and 3) assessment. The chart is broken out by investigation, part, and session number.

Most grade 1 sessions start with active investigation, which may include teacher demonstration, hands-on activity in small groups with guiding questions, class discussion, teacher explanation, and vocabulary reinforcement. At certain times in an investigation, students read (or are read to) and discuss the reading as a class. Students use their notebooks to respond in words or drawings to review questions focusing on the key science concepts in the investigation. FOSS Teacher Guide and *Science Resources* book pages where CA standards are addressed are referenced through the instructional sequence.

**Documentation of teaching and coverage.** The Checklist helps teachers keep track of the class's progress through the module. Teachers can copy the Checklist and record the date of each instruction session. The completed Checklist can serve as a planning tool for teaching the module a second time.

**Correlation with CA standards.** The Checklist allows teachers to identify all the places in the teacher guide and *Science Resources* book where any specific CA standard is addressed. Teachers can quickly find the page references for any point in the instruction. The Checklist provides a table of evidence showing where the CA standards are addressed through multiple exposures and with a minimum of 20–25% hands-on activities integrated cohesively into the instruction.



### FOSS AND CALIFORNIA STANDARDS

The **Plants and Animals Module** supports the following Life Sciences Content Standards for grade 1.\*

#### LIFE SCIENCES

**LS2** *Plants and animals meet their needs in different ways. As a basis for understanding this concept:*

- LS2a *Students know* different plants and animals inhabit different kinds of environments and have external features that help them thrive in different kinds of places.
- LS2b *Students know* both plants and animals need water, animals need food, and plants need light.
- LS2c *Students know* animals eat plants or other animals for food and may also use plants or even other animals for shelter and nesting.
- LS2d *Students know* how to infer what animals eat from the shapes of their teeth (e.g., sharp teeth: eats meat; flat teeth: eats plants).
- LS2e *Students know* roots are associated with the intake of water and soil nutrients and green leaves are associated with making food from sunlight.

The **Plants and Animals Module** supports the following Investigation and Experimentation Content Standards for grade 1.\*

#### INVESTIGATION AND EXPERIMENTATION

**I&E4** *Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:*

- I&E4a Draw pictures that portray some features of the things being described.
- I&E4b Record observations and data with pictures, numbers, or written statements.
- I&E4c Record observations on a bar graph.
- I&E4d Describe the relative position of objects by using two references (e.g., above and next to, below and left of).
- I&E4e Make new observations when discrepancies exist between two descriptions of the same object or phenomenon.

\* *Science Content Standards for California Public Schools: Kindergarten through Grade Twelve* (Sacramento: California Department of Education, 2000).



**Checklist of CA Science Standards for Plants and Animals Investigation 1**

<b>Content Standard Focus</b>	<b>Investigation 1: Grass and Grain Seeds</b>	<b>Teacher Guide (Science Resources) pages</b>
<b>LS2b, LS2c, LS2e, I&amp;E4a, I&amp;E4b, I&amp;E4d</b>	<b>Part 1: Lawns—3 sessions</b>	<b>41-51 (3-8)</b>
DATE OF INSTRUCTION	SESSION 1	
	Teacher-led class discussion (lawns) and demonstration (planting rye grass and alfalfa)	46-47
	Class hands-on with guiding questions and vocabulary instruction (sprout, light, fertilizer, nutrients)	47-49
	Writing in science notebook	49
DATE OF INSTRUCTION	SESSION 2	
	Writing in science notebook (record growth at 3 days)	49
	Vocabulary and content review	50
DATE OF INSTRUCTION	SESSION 3	
	Student reading with discussion questions	51 (3-8)
<b>LS2b, LS2e, I&amp;E4a, I&amp;E4b</b>	<b>Part 2: Mowing the Lawn—5 sessions</b>	<b>52-56</b>
DATE OF INSTRUCTION	SESSIONS 1-2	
	Teacher-led discussion (observations and mowing lawns)	54
	Class hands-on with lawns	54
	Writing in science notebook	54
DATE OF INSTRUCTION	SESSION 3	
	Class hands-on with observing and mowing lawns	55
	Writing in science notebook	55
DATE OF INSTRUCTION	SESSION 4	
	View and discuss video ( <i>How Plants Grow</i> )	55
DATE OF INSTRUCTION	SESSION 5	
	Embedded assessment activity	55
	Vocabulary and content review	56
<b>LS2b, LS2c, LS2e, I&amp;E4a, I&amp;E4b, I&amp;E4c, I&amp;E4d, I&amp;E4e</b>	<b>Part 3: Wheat—6 sessions</b>	<b>57-68 (9-15)</b>
DATE OF INSTRUCTION	SESSION 1	
	Teacher-led class discussion (grains) and demonstration (planting wheat seeds)	61-62
	Class hands-on with guiding questions about relative position	62-63
	Writing in science notebook and calendar entry	63-64
DATE OF INSTRUCTION	SESSIONS 2-5	
	Class hands-on and writing in science notebook	64
	Create class bar graph and in science notebook	64-65
	Embedded assessment (teacher observations)	65
	Teacher-led class discussion and explanation (observations, root function)	65
	Vocabulary and content review	66
DATE OF INSTRUCTION	SESSION 6	
	Student reading with discussion questions and glossary instruction	67-68 (9-15)



# PLANTS AND ANIMALS CHECKLIST

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## Checklist of CA Science Standards for Plants and Animals Investigation 2

Content Standard Focus	Investigation 2: Stems	Teacher Guide (Science Resources) pages
<b>LS2a, LS2b, LS2e, I&amp;E4a, I&amp;E4b</b>	<b>Part 1: Rooting Stem Cuttings—4 sessions</b>	<b>79-87 (16-20)</b>
DATE OF INSTRUCTION	SESSION 1	
	Teacher introduction and explanation (new plants from stem cuttings)	82
	Class hands-on with cuttings, vocabulary instruction (node), and calendar entry	82-84
DATE OF INSTRUCTION	SESSIONS 2-3	
	Embedded assessment activity	84
	Teacher-led class discussion (cutting observations)	84
	Vocabulary and content review	85
DATE OF INSTRUCTION	SESSION 4	
	Student reading, discussion, and review questions	86-87 (16-20)
<b>LS2b, LS2e, I&amp;E4a, I&amp;E4b</b>	<b>Part 2: Spuds—2 sessions</b>	<b>88-95</b>
DATE OF INSTRUCTION	SESSION 1	
	Teacher-led class discussion (potatoes as a stem)	91
	Class hands-on with explanation (eyes), demonstration, and calendar entry	91-93
DATE OF INSTRUCTION	SESSION 2	
	Class hands-on (observing spuds)	93
	Writing in science notebook	93
	Embedded assessment (teacher observation)	93
	Teacher-led class discussion (spud observations)	94
	Vocabulary and content review	95
	Writing in science notebook	95
<b>LS2b, LS2e, I&amp;E4a, I&amp;E4b</b>	<b>Part 3: New Plants from Cuttings—3 sessions</b>	<b>96-100</b>
DATE OF INSTRUCTION	SESSION 1	
	Teacher demonstration and explanation (review cuttings, plants make their food, plant cuttings in soil)	98
	Small group hands-on (plant cuttings) and calendar entry	99
DATE OF INSTRUCTION	SESSION 2	
	View and discuss video ( <i>How Plants Get Food</i> )	99
DATE OF INSTRUCTION	SESSION 3	
	Vocabulary and content review	100
	Small group hands-on with cuttings and guiding questions	100
	Writing in science notebook	100



**Checklist of CA Science Standards for Plants and Animals Investigation 3**

<b>Content Standard Focus</b>	<b>Investigation 3: Terrariums</b>	<b>Teacher Guide (Science Resources) pages</b>
<b>LS2a, LS2b, LS2c, I&amp;E4a, I&amp;E4b</b>	<b>Part 1: Setting Up the Terrarium—2 sessions</b>	<b>112-119 (21-27)</b>
DATE OF INSTRUCTION	SESSION 1	
	Teacher demonstration and explanation (garden, soil, animals, terrarium, seeds, plants, map, key)	114-115
	Small group hands-on with setting up terrariums and guiding questions	115-116
	Writing and drawing in science notebook	115-117
	Teacher-led class discussion, vocabulary instruction (habitat), and calendar entries	117
	Vocabulary and content review	118
DATE OF INSTRUCTION	SESSION 2	
	Student reading, discussion, and review questions	119 (21-27)
<b>LS2a, LS2b, LS2c, I&amp;E4a, I&amp;E4b, I&amp;E4d</b>	<b>Part 2: Recording Changes—5 sessions</b>	<b>120-126 (28-46)</b>
DATE OF INSTRUCTION	SESSION 1	
	Teacher-led class discussion (review terrarium observations, changes) and demonstration (adding animals, watering)	122-123
	Small group hands-on with guiding questions	122-123
DATE OF INSTRUCTION	SESSIONS 2-4	
	Small group hands-on with writing in science notebook	123
	Embedded assessment (teacher observation)	123
DATE OF INSTRUCTION	SESSION 5	
	Student reading, discussion, chart, and review questions	124-125 (28-46)
	Vocabulary and content review	126
<b>LS2a, LS2b, LS2c, LS2e</b>	<b>Part 3: Habitat Match—4 sessions</b>	<b>127-132</b>
DATE OF INSTRUCTION	SESSION 1	
	Teacher-led class discussion (habitats) and demonstration	129
	Class hands-on with habitat mats and organism cards	129-130
	View and discuss video ( <i>How Plants Live in Different Places</i> )	130
DATE OF INSTRUCTION	SESSIONS 2-4	
	Small group hands-on with mats and cards	131
	Embedded assessment (teacher observation)	131
	Writing in science notebook	131
	Vocabulary and content review	132