

# Unit Plan • Unit 10: Invertebrates



**Grade:** Kindergarten

**Subjects:** English Language Arts, Social Studies, Science

**Time frame:** Four Weeks

**Description:** Children will complete their study of the Animal Kingdom by learning about animals without backbones, the invertebrates. They meet the arthropods, which include insects and spiders. They discover that honeybees work together in colonies, each with its own job, and they will compare an insect's body with that of a human. Children will also learn about butterflies and their life cycles.

This unit includes a review week that provides suggested activities as additional review of skills introduced in **Weeks 25-30** for struggling children, and more challenging activities for children who demonstrate mastery of skills and are functioning at or above grade-level.

## Essential Questions:

- **(L.k.5a & Science)** *What is the difference between living and nonliving things?*
- **(RF.K.3a-d)** *How does knowing how to read help us learn about the world?*
- **(RF.K.3d)** *How does knowing one word help us read a word that has many of the same letters?*
- **(RI.K.1)** *How can asking and answering questions about nonfiction books help us learn new things?*
- **(SL.K.4)** *What can we learn from fables like *The Crow and the Pitcher*?*
- **(SL.K.4 & Science)** *What are the different stages of an animal's life cycle?*
- **(Science)** *What do insects need to grow?*
- **(Science)** *How are insects and spiders the same? How are they different?*
- **(Science)** *What do animals need to grow?*
- **(Science)** *Why is important to know if an object will sink or float?*

## Common Core + Starfall Standards & Benchmarks

<b>CCSS.ELA-Literacy.RL.K.1</b>	<i>With prompting and support, ask and answer questions about key details in a text.</i>
<b>CCSS.ELA-Literacy.RL.K.2</b>	<i>With prompting and support, retell familiar stories, including key details.</i>
<b>CCSS.ELA-Literacy.RL.K.3</b>	<i>With prompting and support, identify characters, settings, and major events in a story.</i>
<b>CCSS.ELA-Literacy.RL.K.5</b>	<i>Recognize common types of texts (e.g., storybooks, poems).</i>
<b>CCSS.ELA-Literacy.RL.K.7</b>	<i>With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).</i>
<b>CCSS.ELA-Literacy.RL.K.9</b>	<i>With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.</i>
<b>CCSS.ELA-Literacy.RI.K.1</b>	<i>With prompting and support, ask and answer questions about key details in a text.</i>
<b>CCSS.ELA-Literacy.RI.K.2</b>	<i>With prompting and support, identify the main topic and retell key details of a text.</i>
<b>CCSS.ELA-Literacy.RI.K.4</b>	<i>With prompting and support, ask and answer questions about unknown words in a text.</i>
<b>CCSS.ELA-Literacy.RF.K.2d</b>	<i>Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three-phoneme (consonant-vowel-consonant, or CVC) words.</i>

<b>CCSS.ELA-Literacy.RF.K.2e</b>	<i>Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words.</i>
<b>CCSS.ELA-Literacy.RF.K.3</b>	<i>Know and apply grade-level phonics and word analysis skills in decoding words.</i>
<b>CCSS.ELA-Literacy.RF.K.3b</b>	<i>Associate the long and short sounds with the common spellings (graphemes) for the five major vowels.</i>
<b>CCSS.ELA-Literacy.RF.K.3c</b>	<i>Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does).</i>
<b>CCSS.ELA-Literacy.RF.K.3d</b>	<i>Distinguish between similarly spelled words by identifying the sounds of the letters that differ.</i>
<b>CCSS.ELA-Literacy.RF.K.4</b>	<i>Read emergent-reader texts with purpose and understanding.</i>
<b>CCSS.ELA-Literacy.W.K.2</b>	<i>Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.</i>
<b>CCSS.ELA-Literacy.SL.K.1b</b>	<i>Continue a conversation through multiple exchanges.</i>
<b>CCSS.ELA-Literacy.SL.K.4</b>	<i>Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.</i>
<b>CCSS.ELA-Literacy.SL.K.5</b>	<i>Add drawings or other visual displays to descriptions as desired to provide additional detail.</i>
<b>CCSS.ELA-Literacy.L.K.2</b>	<i>Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.</i>
<b>CCSS.ELA-Literacy.L.K.2d</b>	<i>Spell simple words phonetically, drawing on knowledge of sound-letter relationships.</i>
<b>CCSS.ELA-Literacy.L.K.5a</b>	<i>Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.</i>
<b>CCSS.ELA-Literacy.L.K.5c</b>	<i>Identify real-life connections between words and their use.</i>
<b>Starfall Science</b>	<i>Know how to observe and describe similarities and differences in appearance and behavior of animals.</i>
<b>Starfall Science</b>	<i>Understand animals, including humans, have internal parts and external structures that function to keep them alive and help them grow and reproduce.</i>
<b>Starfall Science</b>	<i>Seek information through observation, exploration, and investigations.</i>
<b>Starfall Science</b>	<i>Communicate observations orally and through drawings.</i>
<b>Starfall Science</b>	<i>Know objects can be described in terms of the materials they are made of and their physical properties.</i>



## Assessments

### Formative:

- Categorize words in *Gus the Duck* by short-u words and high-frequency words
- Listen to each child read *Gus and the Tin Man* independently
- Identify the difference between a skeleton and an exoskeleton
- Identify high-frequency words in texts
- Participate in answering questions about each
- Dramatize *Anansi the Spider*
- Use letter cards to build CVC words
- Draw and label the parts of an insect
- Identify items that will sink/float
- story presented
- Provide one fact about honeybees to the class

### Summative:

- Starfall Progress Monitoring Weeks 28, 29, 30 to individually assess phonics and phonological skills
- Classify words according to medial vowel sounds /a/ /e/ /o/ /i/ and /u/
- Evaluation of illustrations for specificity and accuracy of text
- Compare and contrast two versions of *The Crow and the Pitcher*
- Classify animal picture cards into groups: vertebrates and invertebrates
- Design a picture of the life cycle of a butterfly
- Identify the characteristics of all animal group

**Week 24 is a review week of content covered from Week 25 to Week 30. See Starfall Kindergarten Curriculum pages 706-722 for all skills and activities.**

## Unit Readings and Vocabulary

### Fiction:

*Anansi the Spider*  
*Bug in a Jug (decodable)*  
*Get Up, Cub (decodable)*  
*Gus the Duck (decodable)*  
*The Crow and the Pitcher*

### Nonfiction:

*Animal Kingdom Poster*  
*Backpack Bear's ABC Rhyme Book*  
*Backpack Bear's Bird Book*  
*Backpack Bear's Invertebrates Book*  
*Backpack Bear's Mammal Book*  
*Backpack Bear's Plant Book*  
*Backpack Bear's Reptiles, Amphibians & Fish Book*  
*Invertebrates (Animals without Backbones) Poster*  
*Monarch Butterfly*  
*Vertebrates (Animals with Backbones) Poster*

### Essential Unit Vocabulary

Week 28	Week 29	Week 30	Week 31
arthropods	abdomen	carnivore	
exoskeleton	antennae	chrysalis	
invertebrates	colony	herbivore	
mollusk	drone	hibernate	
rust	honeybee	larva	
	insects	molts	
	pollinate	omnivore	
	queen	pupa	
	thorax	transparent	
	worker bee		



## Unit Learning Outcomes

### As a result of this unit, children will:

- Build CVC words
- Categorize words in word families: *-um, -uff, -un*
- Classify words according to digraphs /th/ /sh/ /ch/ /hw/
- Compare and contrast the stories *The Crow and the Pitcher* and *Bug in a Jug*
- Contribute to a shared writing about all the Starfall characters
- Create a title for "Backpack Bear's Story"
- Describe the life cycle of a butterfly
- Design an illustration that matches text
- Design and label the parts of an insect
- Discriminate between short- and long-u sound
- Discriminate vowel sounds /a/ /e/ /i/ /o/ /u/
- Give examples of animals belonging to the invertebrates animal group
- Identify a different solution to *The Crow and the Pitcher*
- Identify characteristics of invertebrates
- Identify medial short-u
- Identify rhyming words
- Identify story elements in both fiction and nonfiction stories
- Identify the different groups within the invertebrates animal group
- Integrate information learned about butterflies to provide appropriate illustrations to *The Butterfly Book*
- Manipulate objects and predict if they will sink or float
- Predict the outcome and write about it
- Propose a solution to story problems
- Read stories that use a combination of decodable and high-frequency words learned
- Recognize high-frequency words *by, how, make, now, put, saw, take, and went*
- Recognize the connection between word families and rhyming words
- Recognize the difference between spiders and insects
- Recognize the importance of Honeybees to plants and animals
- Select a favorite character in a story and write about the character providing reason for your choice
- Summarize a story

**Week 31** is a Cumulative Review which will allow children the opportunity to practice the skills introduced prior to and during **Weeks 25-30**. Suggested activities serve to review specific skills introduced.

## Instructional Skills by Week

### Week 28:

- Answer questions about a story
- Choose characters and dramatize a story
- Compare and contrast themselves to arthropods
- Decode words to read a story
- Discriminate initial and medial short-a, short-e, short-i and short-o words
- Discriminate initial long-u and short-u words
- Explain the genre folktale
- *Get Up, Cub* graph for each child
- Identify and discriminate short-u words
- Identify the location of blends in words
- Illustrate a story
- List the characters in a book
- Locate Africa on a map
- Make inferences
- Name the five groups of animals with backbones
- Realize that animals in stories are sometimes given human characteristics
- Recognize *-um, -uff, and -un* word families
- Recognize high-frequency words: *my, by, now, how*
- Recognize initial and medial short-u words
- Recognize the six groups of invertebrates
- Recognize, distinguish and produce rhyming words
- Spell CVC words
- State the difference between vertebrates and invertebrates
- Use kidwriting to write stories and illustrate them



## Week 29:

- Classify words into high-frequency and decodable categories
- Compare an insect body and a human body
- Compare and contrast two adaptations of the same story
- Delete initial phonemes to form new words
- Discriminate digraphs /sh/, /ch/, /wh/, and /th/
- Draw an insect's body with the correct parts
- Identify rhyming words
- Identify story elements
- Identify the problem in a story and its solution
- Illustrate a story to reflect its content
- Label a diagram of an insect
- Match letter sounds to appropriate letters
- Realize that objects placed in water either sink or float, and why
- Recall interesting facts about insects
- Recall that honeybees pollinate flowers
- Recognize high-frequency words: *put, saw, and went*
- Recognize that fables teach lessons
- Recognize that honeybees live in beehives and have jobs
- Recognize the lesson taught by a fable
- Substitute phonemes to form new words
- Substitute vowels in words
- Use magnetic letters to duplicate high-frequency words
- Write sentences about a favorite character

## Week 30:

- Answer questions about a story based on illustrations
- Compare butterflies and moths
- Contribute to a shared writing
- Identify and produce rhyming words
- Identify distinguishing characteristics of animal groups
- Identify the stages of a butterfly's life cycle
- Illustrate an informational book to reflect its content
- Know that silent e makes a vowel say its own name
- Match consonant and short vowel sounds to appropriate letters
- Read an age-appropriate book with others
- Recognize high-frequency words: *eat, make, and take*
- Recognize that when two vowels are together in a word, the first one says its name and the second one is silent
- Share their work with classmates
- Substitute and delete phonemes to form new words
- Summarize a book with classmates
- Use strategies for decoding words

## Instructional Resources

- Technology: Mimio or Smart Board, CD player, computers, tablets
- Website: *more.Starfall.com*
- Plush Zac, Peg, Mox, Tin Man, and Gus the Duck
- *Reading and Writing Workbooks* (pages 51 – 60)
- Individual whiteboards and markers
- Classroom whiteboard and markers
- Pocket chart
- High-Frequency Word Cards
- Invertebrate Overlay Cards
- Vocabulary Word Cards
- Starfall Dictionaries
- *Gus and Tin Man* story
- Magnetic letter sets
- *Gus and Tin Man* blacklines
- Starfall Writing Journals
- *Gus the Duck* Sequence Cards, Sentence Strips, Word Cards
- Starfall Speedway Game
- Short Vowel Word Cards
- Short-u Picture Cards
- "Color by Word" practice pages
- Short-u puzzles
- Generated practice pages
- Lowercase Letter Cards
- Blank Vocabulary Word Cards
- Insect labeling diagram
- Backpack Bear's Story written on chart paper
- Objects to conduct sink or float experiment
- Small clear container filled with water
- Class Sink/Float Chart
- Digraph Letter Cards
- Starword Wall
- Puzzle Word Search practice pages
- Silent-E Wand
- Sound Spelling Picture Cards *Apple to Zebra*



## Cross-Curricular Link(s)

### Science

- Identify the life cycle of a butterfly and the importance of honeybees on the environment
- Link sink/float to the fable *The Crow and the Pitcher* and *Bug in a Jug*
- Make connections between stories read and information about Invertebrates
- Recognize the difference between vertebrates and invertebrates