



SC Farm Bureau
Ag in the Classroom
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SC Ag in the Classroom
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Honey Bees are Helpers

Grade Level: K-2

Estimated Time: 20–30 minutes/day, 5 days

Objectives: Students will learn about honey bees, how they help farmers, and how they make honey.

Day One: Honey Bees are Insects

Materials:

- *Chart paper
- *Markers
- *Diagram of honey bee
- *Computer and/or Promethean Board/Smart Board
- *Post-it notes
- *Pencils

Procedures:

1. Tell students that today we're going to begin learning about honey bees. Make a KWL chart. Ask students what they already know about honey bees. Record it under the "K" column. Then ask students what they want to know about honey bees. Record under the "W" column. Explain that later we'll fill in the "L" column with information that they learn.

HONEY BEES		
K	W	L

2. Show students a diagram of a honey bee. Tell students that honey bees are **insects**. Ask if they know of any other insects (ladybugs, ants, butterfly, etc). Tell them that all insects have three main body parts—**head, thorax, abdomen**. Point them out on the diagram. All insects also have **six legs**. Point out that honey bees also have antennae, eyes, and wings.
3. Pull up the online activity Parts of a Bee. Call on students to come up to the Promethean/Smart Board and label the bee.
4. Give students a sticky note and have them write down one thing they learned today about honey bees. (Or call on students to share and write it on the chart for them).

Day Two: All About Honey Bees

Materials:

- *KWL chart
- *Markers
- *Computer and Promethean Board/Smart Board

Procedures:

1. Remind students of what we talked about yesterday. Tell them that today we're going to talk about the life of a honey bee. Explain that there are other kinds of bees (bumblebees, carpenter bees, etc), but we're just focusing on honey bees.
 2. Pull up the webpage "Bee Bonanza: The story of honey bees" to show students pictures of honey bees as you talk.
 3. Tell them that honey bees live in groups called **colonies**. Their home is called a **hive**. Each colony of honey bees has a queen bee. The **queen** is larger than the other bees and she is in charge. She tells the other bees what to do, and she is the only bee that lays eggs so new baby bees can be born. She never leaves the hive. The other female bees are called the **workers**. They have many different jobs such as collecting pollen and nectar from flowers, building and protecting the hive, and more. The worker bees are the ones you see flying around when you're outside, and they're the only ones who can sting you—although they won't bother you unless they're afraid. The male bees are called the **drones**. They help the queen lay eggs. They never leave the hive.
2. Visit "10 Facts About Honey Bees!" and discuss other interesting facts with the students.
 3. Add new knowledge to the "L" column of the KWL chart.

Day Three: Helping Farmers

Materials:

- *KWL chart
- *Markers
- *Pretend wings (can usually find at the Dollar Tree)
- *Flowers
- *Cups
- *Apple Juice
- *Double sided tape
- *Cotton Balls
- *Poem “Bees” (see below) written on chart paper or on the board
- *The Beeman by Aileen Fisher

Procedures:

1. Briefly review what the class has studied the past few days. (Example: Honey bees are insects. They live together in colonies. They’re home is called a hive. There’s a queen, worker bees, and drones. They make honey.)
2. Say, “Did you know that honey bees also help farmers?” Ask if students have ever seen pollen before. Tell them that it is the yellow dust we see all over our cars in the springtime. Honey bees fly from flower to flower drinking nectar. When they do that, pollen from one flower gets taken to the next flower and then to the next. This is called pollination. Certain crops depend on **pollination**. Apples, cucumbers, pumpkins, sunflowers, blueberries, and more would disappear without the honey bees helping to pollinate them. They simply could not grow without being pollinated.
3. Have a few students act out the pollination process for the class so they can visualize what happens. Have a child dress up like a honey bee—give the child wings to wear and a straw to be their long tongue (known as a proboscis). Put a strip of double sided tape on their arms so the “pollen” (cotton balls) can stick to them. Choose a few other students to be flowers. Give them each a flower to hold. Place small cups of “nectar” (apple juice) in front of the students who are flowers. Have the bee fly to a flower and take a sip from their cup of nectar. They will then get a cotton ball (representing pollen) stuck to their arm. When they fly to another flower, they will take another sip of nectar, and the flower will take the cotton ball that was stuck to the bee. If time allows, let other students act out the pollination process, too.
4. Have the class read the poem “Bees” by Aileen Fisher aloud together. (Poem originally found in the book The Beeman).

There wouldn't be Sunflowers
Wouldn't be Peas
Wouldn't be Apples
On Apple trees
If it weren't for fuzzy old
Buzzy Old Bees
Dusting Pollen

From off their knees.

Tell students to look for rhyming words. Have students come up and circle the words that rhyme (peas, trees, bees, knees). Ask students to look the different crops that the poem mentions are dependent on bees pollinating them (sunflowers, peas, apples). Let them come up and underline them in the poem. Are there any sight words your class is learning that are found in the poem? If so, have students come highlight those words in the poem.

5. Read The Beeman.

6. Let students share what they learned today, and add it under the “L” column of the KWL chart.

Day Four: How Bees Make Honey

Materials:

*KWL chart

*Markers

*Honey

*Snack (rolls, fruit, etc)

*Paper plates

*Napkins

*The Honey Makers by Gail Gibbons and/or How Bees Make Honey by Louise Spilsbury

*Promethean Board/Smart Board for YouTube video

Procedures:

1. Tell students that today we’re going to talk about how honey bees make honey. Give them a simple honey snack to enjoy (example: honey and a roll and/or slices of fruit) while they watch the YouTube video How do bees make honey? : Beekeeping with Maddie #13.
2. Then read The Honey Makers by Gail Gibbons or How Bees Make Honey by Louise Spilsbury.
3. Finally, have students share what they learned and add their comments to the “L” column of the KWL chart.

Day Five: Craft and Review

Materials:

*Yellow paper bags (or brown bags with yellow paper glued on)—1 per student

*Black construction paper cut into bag width strips—4 or 5 per student

*Googly eyes—2 per student

*Elmers Glue

*Scissors

*Paper Doilies—2 per student

*Post-it notes

*Pencils

Procedures:

1. Tell students that today we're going to make bee puppets. When we're finished, we'll get in pairs and use the puppets to share facts we've learned about honey bees with each other.
2. Show students an example you've made or pull up [this website](#) for them to see what the final product will look like.
3. Give each student a paper bag and black strips of paper. Have them glue the strips on to look like the stripes on a bee.
4. Give each child two googly eyes and have them glue them at the bottom of the bag.
5. Give each student two paper doilies. Tell them these are the wings. Show them where to glue them on the bag.
6. While students wait for their glue to dry, give them three post it notes. Have them write down three facts about honey bees. Once they're finished, have them place the facts inside their bee bag/puppet.
7. Put the students in pairs and allow them to use their puppets to share the facts about honey bees with one another.

South Carolina State Standards:

Kindergarten:

K.I.3.1: With guidance and support, develop a plan of action for collecting information from multiple sources through play, sensory observation, texts, websites, and conversations with adults/peers.

K.I.4.3: With guidance and support, reflect on findings.

K.RL.2.1: Recognize and produce rhyming words.

K.S.1A.1: Ask and answer questions about the natural world using explorations, observations, or structured investigations.

K.S.1A.8: Obtain and evaluate informational texts, observations, data collected, or discussions to (1) generate and answer questions about the natural world, (2) understand phenomena, (3) develop models, or (4) support explanations. Communicate observations and explanations using oral and written language.

K.L.2A.1: Obtain information to answer questions about different organisms found in the environment (such as plants, animals, or fungi).

K.L.2A.3: Develop and use models to exemplify how animals use their body parts to (1) obtain food and other resources, (2) protect themselves, and (3) move from place to place.

K.RI.11.1: With guidance and support, explore informational text structures within texts heard or read.

First Grade:

1.I.1.1: Translate "wonderings" into questions that lead to group conversations, explorations, and investigations.

1.I.3.1: Develop a plan of action for collecting relevant information from multiple sources through play, sensory observations, texts, websites, and conversations with adults/peers.

1.W.6.1: Write routinely and persevere in writing tasks for a variety of purposes and audiences.

1.S.1A.8: Obtain and evaluate informational texts, observations, data collected, or discussions to (1) generate and answer questions about the natural world, (2) understand phenomena, (3) develop models, or (4) support explanations. Communicate observations and explanations clearly through oral and written language.

Second Grade:

2.I.1.1: Ask self generated questions that lead to group conversations, explorations, and investigations.

2.RI.8.1: Identify how the author uses words, phrases, illustrations, and photographs to inform, explain, or describe.

2.RI.8.2: Use index, heading, bullets, and captions to locate key facts and information; explain the relationship between those features and the text.

2.S.1A.1: Ask and answer questions about the natural world using explorations, observations, or structure investigations.

2.L.5A.1: Obtain and communicate information to classify animals (such as mammals, birds, amphibians, reptiles, fish, or insects) based on their physical characteristics.

2.S.1A.8: Obtain and evaluate informational texts, observations, data collected, or discussions to (1) generate and answer questions about the natural world, (2) understand phenomena, (3) develop models, or (4) support explanations. Communicate observations and explanations using oral and written language.

2.L.5B.4: Construct scientific arguments to explain how animals can change their environments (such as the shape of the land or the flow of water).

Sources:

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