

Busy Buzzing Bees

Integration Cards, or *iCards*, may be used as enrichment activities by the teacher, teacher's aide or volunteer, in any sequence, to integrate Language & Literacy, Math and Creative Arts into the science content presented in this unit.

Language & Literacy

- L1. Fingerplay
- L2. Sing Along Song
- L3. Picture Walk
- L4. Read Aloud

Math

- M1. Flower Lotto
- M2. Hexagon Hunt
- M3. Sorting Tastes
- M4. Voting Scents

Creative Arts

- C1. Fingerprint Bee Cards
- C2. Hexagon Home
- C3. Honeybee Headbands
- C4. My Bee Dance

Fingerplay

Guidelines

1. Children should be standing, use a large open space for body movements.
2. Introduce the fingerplay words and hand motions one line at a time. Tell the children: **Say it after me.**
3. Use rhythm and hand motions to engage the children.
4. As the children recite the fingerplay chant, ask them to use soft voices, then loud voices.

The Bees in the Hive

Sung to tune of "The Wheels on the Bus"

The bees in the flowers go buzz, buzz, buzz
Buzz, buzz, buzz, buzz, buzz, buzz
The bees in the flowers go buzz, buzz, buzz
Out in the field.

(Wiggle all five fingers on one hand and move your hand around in small circles.)

The proboscis on the bee helps sip the nectar,
Sip the nectar, sip the nectar.
The proboscis on the bee helps sip the nectar,
And drink it all up.

(Wiggle your index finger on one hand.)

The antennas on the bee smell, smell, smell
Smell, smell, smell, smell, smell, smell.
The antennas on the bee smell, smell, smell
To find the right beehive.

(Hold index fingers above your forehead.)

When the bee finds the flower it
Waggles, waggles, waggles
Waggles, waggles, waggles,
Waggles, waggles, waggles.
When the bee finds the flower it
Waggles, waggles, waggles
Back in the hive.

(Stand up and wiggle your bottom like a bee doing the waggle dance.)



Sing Along Song

Guidelines

1. Have children stand up to sing this song.
2. Introduce the song and motions one line at a time. Tell the children: **Sing after me. Do what I do.**
3. When children know the words, sing the song together.

Honeybee

*Original Author Unknown
Sung to the tune of "Jingle Bells"*

Honeybee, honeybee,
landing on my nose,
honeybee, honeybee,
now he's on my toes.
on my arms,
on my legs,
on my elbows.
honeybee, oh honeybee
he lands, and then he goes.

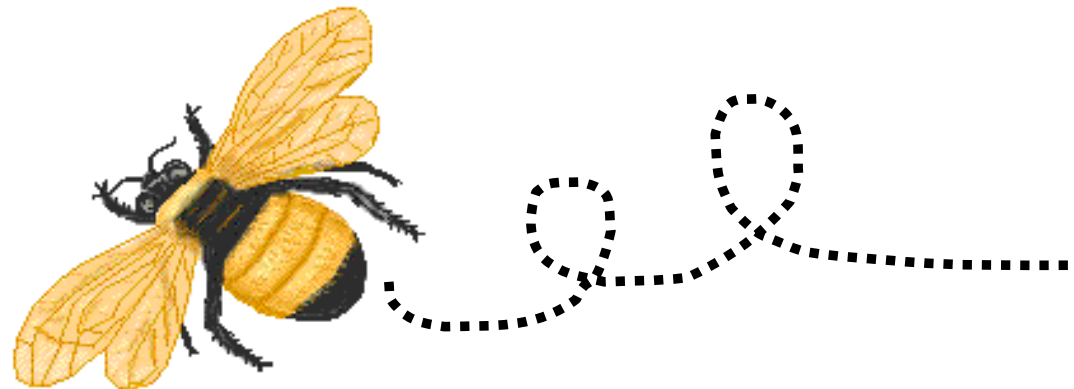
(Point to your nose)

(Point to your toes)

(Pretend to pinch your arm)

(Tap your knees)

(Touch the floor and then raise arms)



Picture Walk

Guidelines

1. Choose a book.

Select a book from the *Busy Buzzing Bees Picture Walk Books* list. If these books are not available, find another content-related book filled with rich, detailed pictures.

2. Get to know the book.

Read the story to yourself before sharing the book with the children. Notice how the illustrations tell the story.

3. Enjoy reading time!

Make sure everyone is comfortable and able to see the book. If needed, establish rules for good behavior.

Taking a picture walk through a book is one of the earliest stages of reading. It enables children to “read” books by looking at the pictures. Ideal picture walk books have rich illustrations. When a book has too much text to hold children’s attention, use it to show just the pictures. Wordless books are also a great choice for Picture Walks.

1. Before conducting the picture walk:

Let the children know you are going to read this book by looking at the pictures.

- Show the cover of the book.
- Read the title, the author’s name, and the illustrator’s name.
- Ask children to predict what they think the story will be about based on the cover and the title.

2. While conducting the picture walk:

- Slowly go through the book, page by page.
- Ask a few questions about each picture. For example:

When did that happen?

What do you think will happen next?

Why do they want to do that?

Where is this part of the story taking place?

Where do you think they are going?

3. Share the book again and again.

When children like a book, they want to “read” it over and over.

4. Leave the book in the science or book area for the children to enjoy.

Picture Walk Books

Lesson 1: Pollination

Bees by Sue Barraclough

The various types of bees are described in this nonfiction resource. Bees can be different shapes and sizes.

Lesson 2: Honey

Honeybees (All Aboard Science Reader) by Joyce Milton

This book describes the anatomy, behavior, and life cycle of the honeybee, as well as the different kinds of honey that are produced on bee farms.

Lesson 3: Scent of a Bee

Honey in a Hive by Anne Rockwell

This book tells the story of how honeybees gather nectar to make honey.

Lesson 4: Bee Dance

DK Readers: Busy, Buzzy Bee (Level 1: Beginning to Read)

This book has great imagery and a story line about a special busy bee. This book describes the basics of how honey is made and how bees communicate through a dance.

Read Aloud

Guidelines

1. Choose a book.

Select a book from the *Busy Buzzing Bees Read Aloud Books* list. If these books are not available, find another content-related book.

2. Get to know the book.

- Read the story to yourself before reading the book to your class.
- Plan ways to change your voice to fit the plot and characters.
- Gather props.

3. Enjoy reading time!

Make sure everyone is comfortable and able to see the book. If needed, establish rules for good behavior.

When children are read to, they are likely to grow into good readers. As they listen to stories, children hear rich vocabulary and proper language structure, and learn new information about the world. Being read to can enhance imagination, creativity, and curiosity. When selecting a book for a Read Aloud, consider the amount of text and the children's attention span.

1. Before reading the story:

- Show the cover of the book.
- Read the title, the author's name, and the illustrator's name.

2. While reading the story the first time:

- Focus on the flow of the story.
- Read with expression, change your voice for different characters.
- Vary the reading speed: fast for exciting parts, slow for scary or quiet parts.

3. After reading the story:

- Ask a few questions about the book. For example:

Who would you like to be in the story?

What would you have done?

Where did the story happen?

When did the story get exciting/scary?

Why did they do that?

How would you change the ending?

- Have the children re-tell the story or act out their favorite part.

4. For additional readings:

- Invite children to ask questions or discuss the story.
- Encourage children to say words they remember from the story as you read them.
- Assist children in recognizing the sounds that make up words.

5. Leave the book in the science or book area for the children to enjoy.

Lesson 1: Pollination

Bees and Their Hives by Linda Tagliaferro

This book offers simple text and photographs that describe the life of bees and the hives in which they live.

Lesson 2: Honey

In the Trees, Honey Bees! by Lori Mortensen

Inside-the-hive views of a wild colony of honeybees offer close-ups of the queen, the cells, and even bee eggs. Simple verse will engage a young child, while sidebars with fascinating information satisfy the somewhat older child.

Lesson 3: Scent of a Bee

ECHOS Book: *Bizzy Bee's Adventures* by Ava Goldman

Two animal friends set off on an adventure in a flowery garden. Bizzy the bee uses her sense of smell to find her way back home to her special beehive.

Lesson 4: Bee Dance

Honeybee and the Robber by Eric Carle

A brave little honeybee saves the day when a big hungry bear attacks the beehive. Ingenious pop-ups and other movable images bring this funny and informative story to vivid life.

Flower Lotto

Materials

For the Teacher:

- *Flower Lotto Board*
- *Bee Cutouts* page
- scissors
- *Flower Lotto Board*, cut into four squares

For each child:

- ten *Bee Cutouts*
- *Flower Lotto Board*

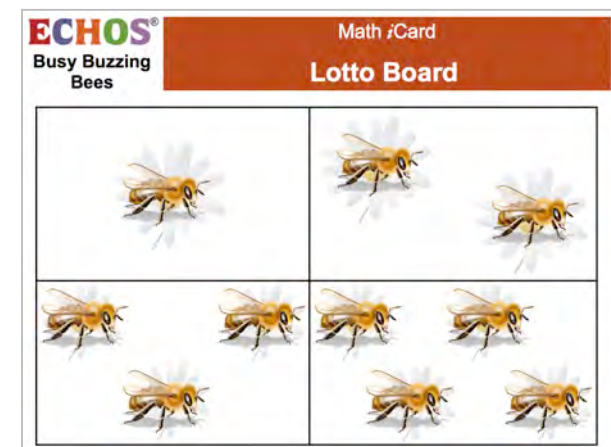
Preparation

1. Make one copy of the *Flower Lotto Board* for each child and one for the teacher.
2. Copy the *Bee Cutouts* page and cut out ten bees for each child.
3. Cut one *Flower Lotto Board* into four squares for teacher use.

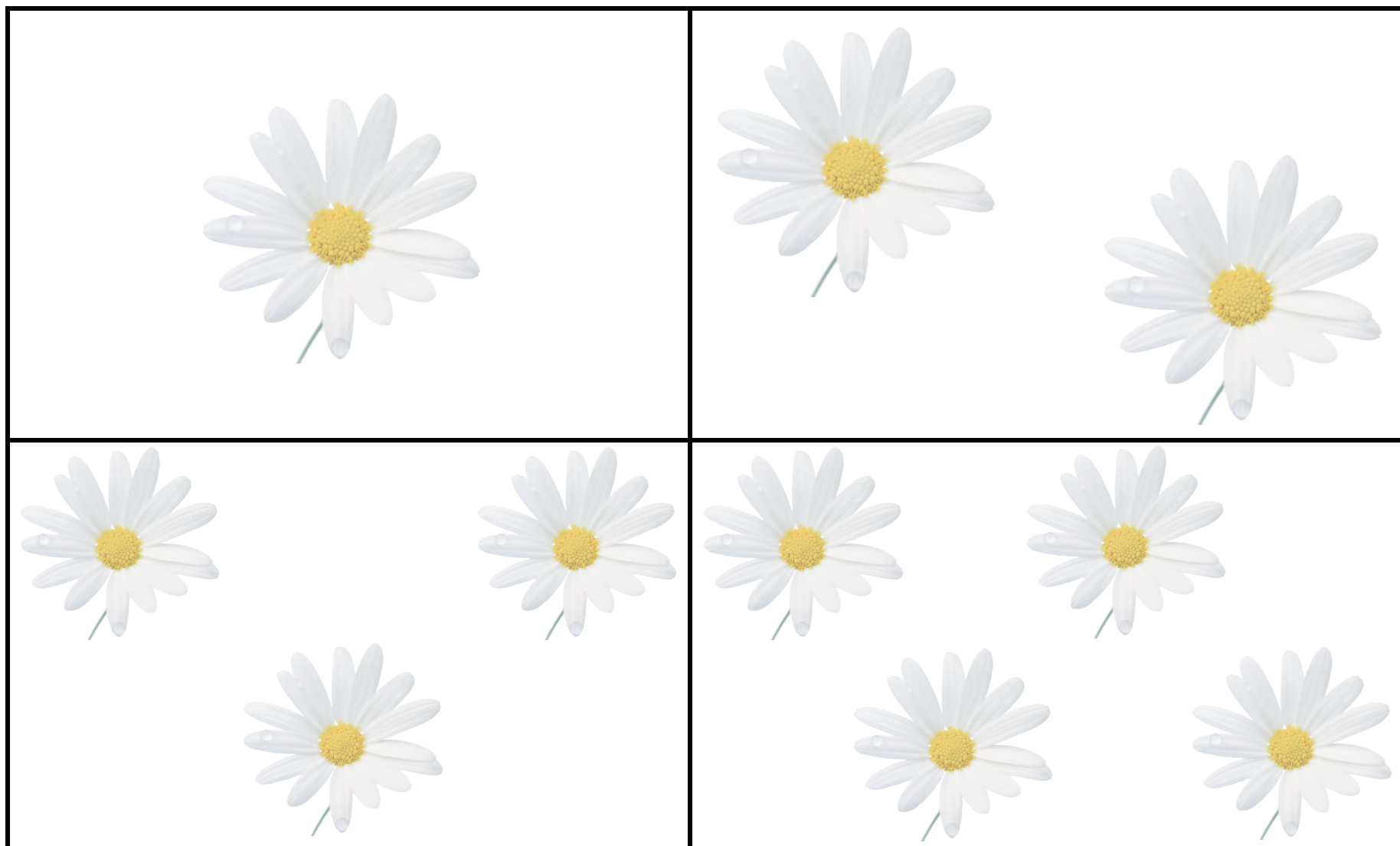
Children use one-to-one correspondence as they match bees to flowers.

Procedure

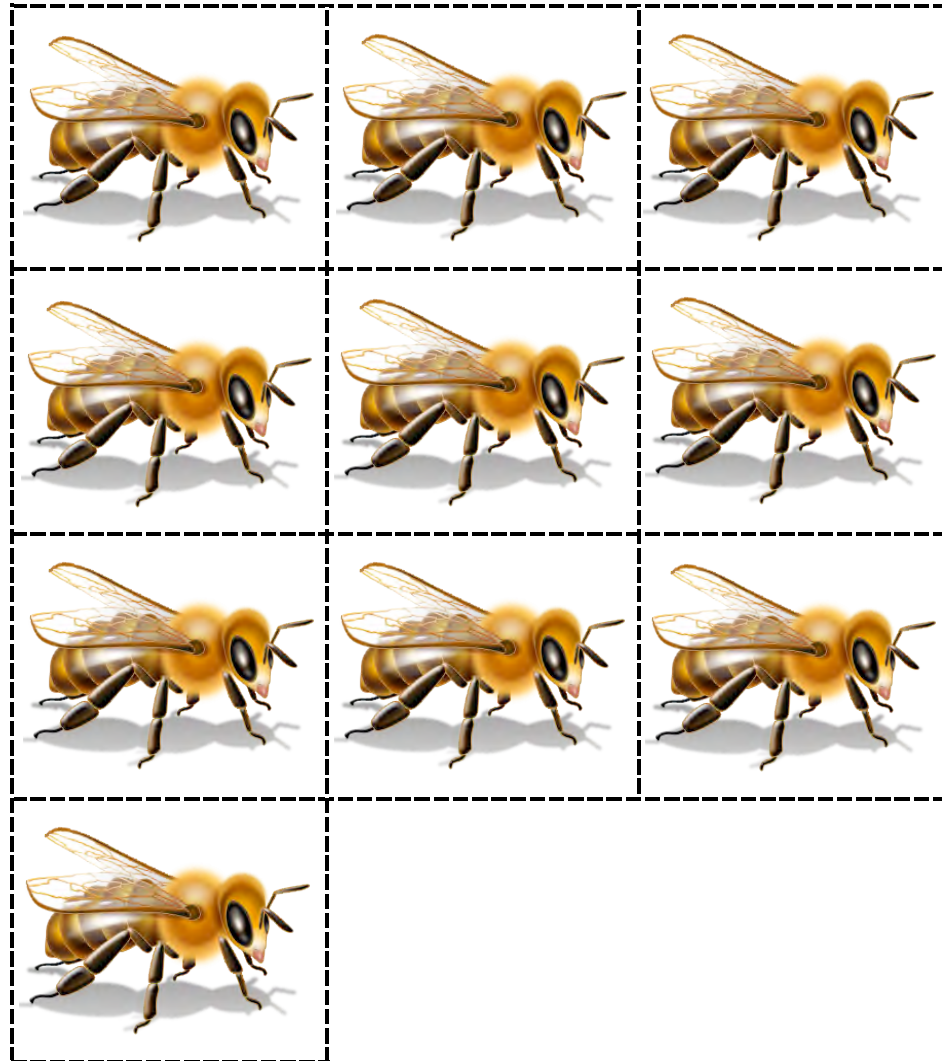
1. Say: **Bees love to fly from flower to flower. Today we are going to fly one bee to each flower.**
2. Give each child a *Flower Lotto Board* and a set of ten bees.
3. Model how to play the game. Hold up a flower card with one, two, three or four flowers. Count the number of flowers on the card and “fly” bees to the matching square on the board.
4. Say: **Now it’s your turn.** Play the game with the children. Hold up a flower card with one, two, three or four flowers. Help the children count the number of flowers and “fly” one bee to the matching square on the board. Repeat with other cards.



Lotto Board



Bee Cutouts



Hexagon Hunt

Materials

- one die
- three sheets of 9" x 12" brown construction paper
- *Hexagon Stencil* page
- *Bee Cutout* page
- one permanent marker

For each child:

- one *Bee Cutout*

Preparation

1. Make one copy of the *Hexagon Stencil* page. Cut it out to make a stencil.
2. Use the stencil to trace six hexagons on brown construction paper. Cut out each shape.
3. Draw dots on the hexagons and arrange them as in *Figure 1*.
4. Make a photocopy of the *Bee Cutout* page.
5. Cut out the bees, one per child.

Children match the numbers of dots on a die to the number of dots on a hexagon.

Procedure

1. Say: **Today we are going to have a Hexagon Hunt. How many sides does a hexagon have?** Count six sides with the children.
2. Model the game. Roll the die. Count the number of dots. Model how to “fly” the bee to the matching hexagon with the same number of dots. Then, “fly” your bee back.
3. Distribute one bee to each child. Say: **Now it’s your turn.** Give each child a turn to roll the die. Invite the children to count the number of dots. Prompt as needed to help children “fly” the bee to the hexagon with the same number of dots. Then, “fly” the bee back to them.
4. Give each child a turn to roll the die and “fly” the bee to the matching hexagon. Help the children find the hexagon with the same number of dots as the die.

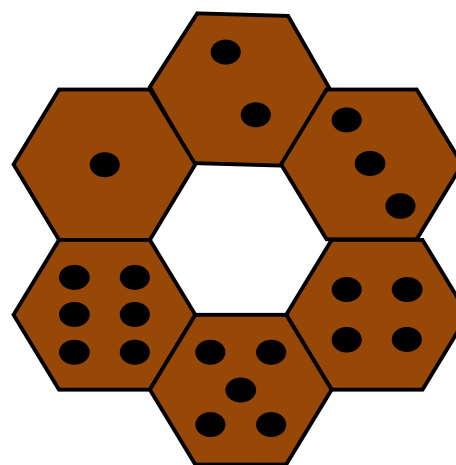
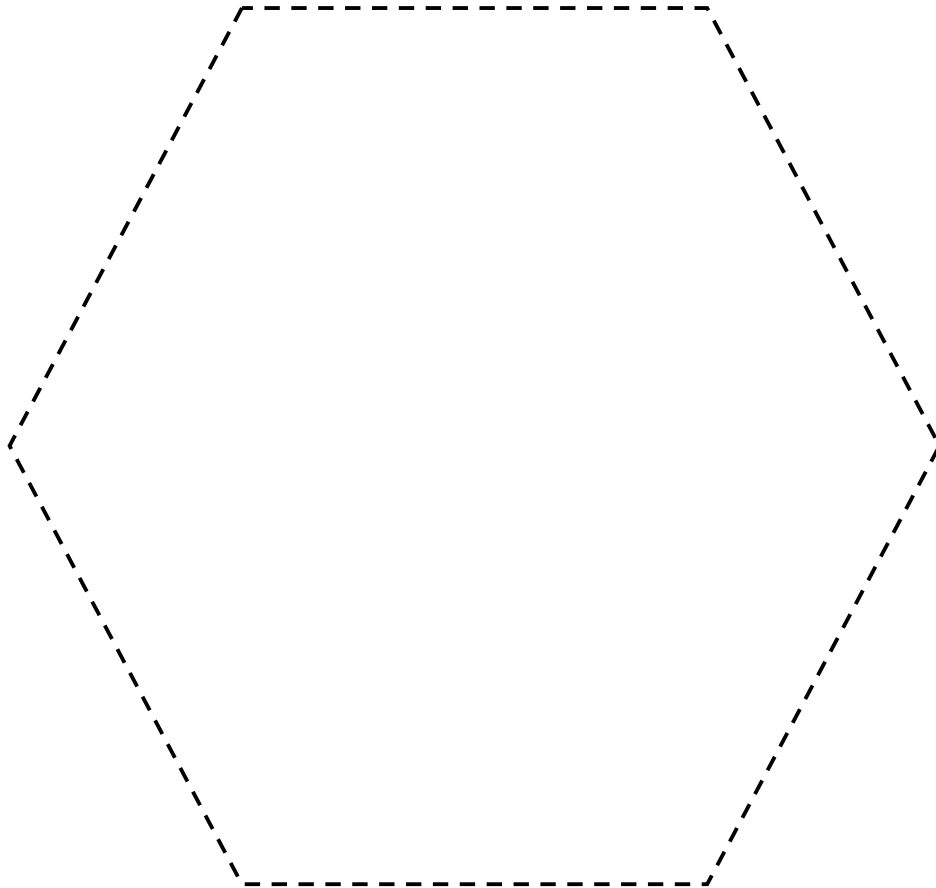
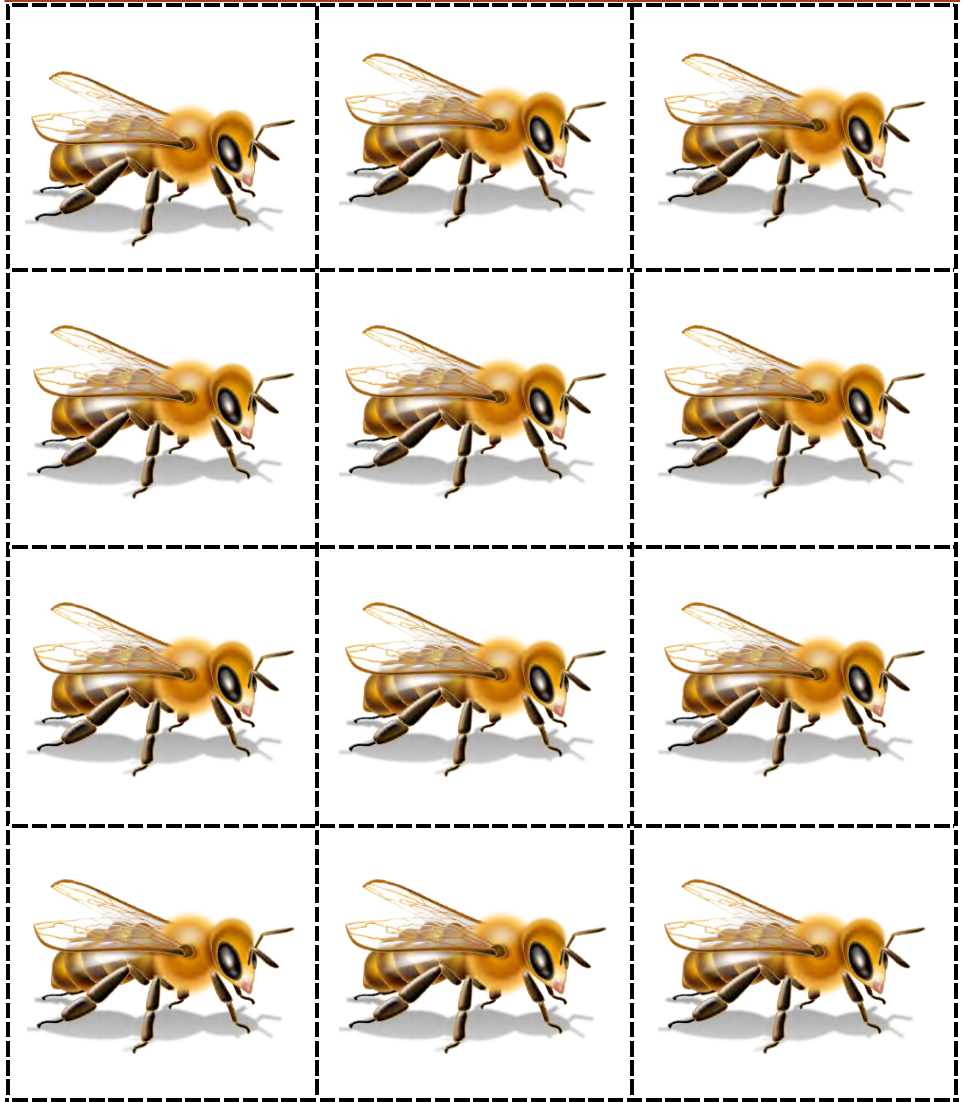


Figure 1

Math *i*Card
Hexagon Stencil



Math *i*Card
Bee Cutout



Sorting Tastes

Materials

- honey
- grapefruit juice
- salt
- water
- permanent marker
- three 9" x 12" sheets of construction paper
- *Taste Cards* page

For each child:

- three 1¼-oz. cups

Preparation

1. Using a permanent marker, label each of the three cups for each child with a small number "1", "2", or "3"
2. Prepare sample cups:
 - #1 cups: a few drops of honey and water
 - #2 cups: a few drops of grapefruit juice and water
 - #3 cups: a pinch of salt and water
3. Copy the *Taste Cards* page. Cut out and paste each picture on a sheet of construction paper.

Children sort three different tastes: sweet, sour, and salty.

Procedure

1. Say: **Today we are going to explore three tastes: sweet, sour and salty.**
2. Invite the children to taste the sample cups, one at a time. Ask: **What do you think is in the cup? How does it taste?**

Guide the children to one of three answers:

- Cup #1: Honey tastes **sweet**.
Cup #2: Grapefruit juice tastes **sour**.
Cup #3: Salt tastes **salty**.

3. Introduce each taste card: honey for sweet, a grapefruit for sour, and salt for salty. If possible, place a real jar of honey on the honey card, a real grapefruit on the grapefruit card, and a real saltshaker on the salt card.
4. Ask the children to place the sample cups on the construction paper that matches the taste. Repeat for all sample cups.
5. Discuss results with the children. Count the number of cups in each category.



Math *i*Card
Taste Cards



Materials

- three herbs and spices
For example: basil, chives, cilantro, cinnamon (stick), cloves, dill, ginger, mint, nutmeg, oregano, parsley, rosemary, sage, thyme, or vanilla (use liquid or fresh versions, not powders that can be inhaled by children)
- Like/Dislike Cutouts page
- permanent marker
- glue stick
- chart paper or tag board

For each child:

- three 1¼-oz. cups

Preparation

1. Make one copy of the *Like/Dislike Cutout* page. Cut out each picture.
2. Create a chart as in **Figure 1**. Glue the two pictures to the top of the chart paper.
3. Place a few bits of each selected herb or spice in a set of three cups for each child.

Children vote on how they feel about different scents.

Procedure

1. Say: **Today you are going to smell some scents and vote on how you feel about them.**
2. Remind children that we use our noses to smell, but bees use their antennas to smell.
3. Give the children one smelling scent cup at a time. Invite them to smell the cup and vote on how they feel about the scent. Tally their votes. Continue with all three scents until everyone has voted.



Thumbs up.
I like this scent.



Thumbs down.
I don't like this scent.

4. Discuss results. Ask: **Which scent do we like the most?** Count the votes with the children. Write the number in each box.

Herb Scent		
Scent#1: Vanilla	III 3	I 1
Scent#2: Ginger		
Scent#3: Mint		

Figure 1

Math *i*Card
Like/Dislike Cutouts



Fingerprint Bee Cards

Materials

- black washable finger paint
- crayons
- hand wipes/wet paper towels
- *Honeybee* photograph

For each child:

- one index card
- one small paper plate

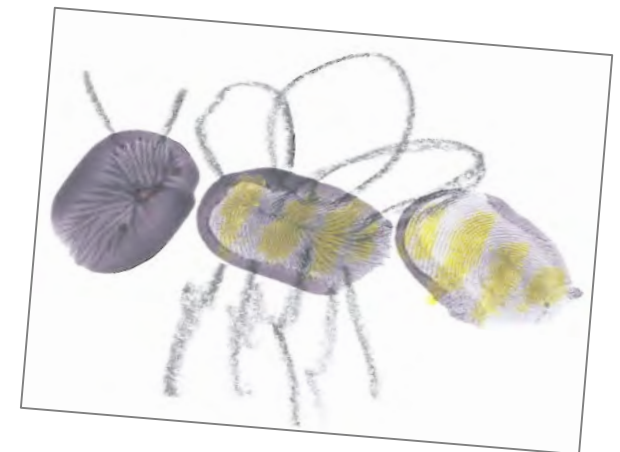
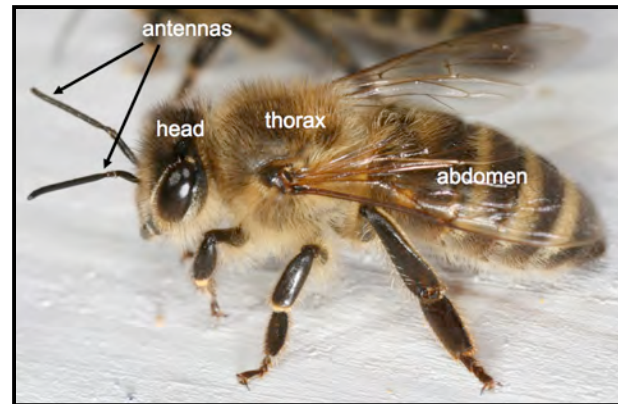
Preparation

1. Pour black, washable finger paint onto each plate.
2. Place the *Honeybee* photograph in an area visible to the children.

Children create bee picture cards.

Procedure

1. Say: **Today we are going to use our fingers to create bee cards.**
2. Give each child an index card and a small plate with a small amount of black finger paint.
3. Model how to make a fingerprint bee by using your index finger to make one fingerprint at a time side by side: one to represent the head, one for the thorax and one for the abdomen.
4. Assist children in using crayons to add legs, wings and antennas to their fingerprint bee. If needed, refer to the bee diagram to create the fingerprint bee card.
5. Provide hand wipes or wet paper towels for the children to clean their fingers following the activity.



Honeybee

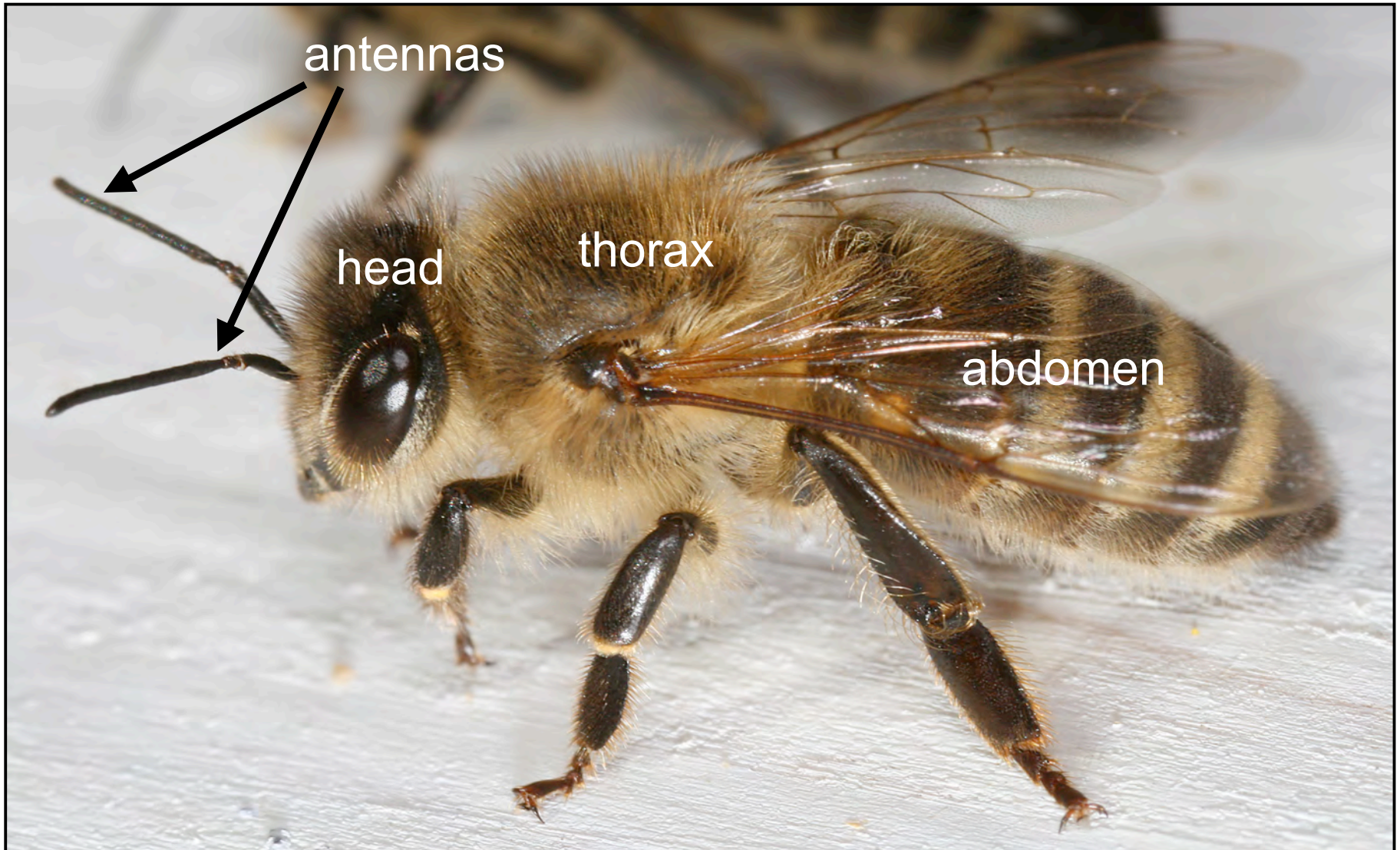


Photo Credit: Richard Bartz, Wikimedia Commons

Creative Arts *i*Card

Hexagon Home

Materials

- *Honeycomb* photograph
- *Hexagon Stencil* page
- 9" x 12" white, brown or yellow construction paper (or plain white paper)
- scissors
- crayons

For each child:

- one hexagon shape

Preparation

1. Make one copy of the *Hexagon Stencil* page and cut it out to make a hexagon stencil.
2. Trace the stencil on the construction paper and cut out one hexagon per child.
3. Place the *Honeycomb* photograph in an area visible to the children.

Children make a honeycomb model by decorating hexagon cutouts.

Procedure

1. Say: **Today you will each decorate your honeycomb.**
2. Hold up the *Honeycomb* Photograph. **Bees live in beehives, and inside the beehives there is a honeycomb. Honeycombs have many hexagon shapes inside.**
3. Give each child a hexagon cutout and crayons.
4. Assist the children in coloring/decorating the hexagon.
5. When the children have finished, write each child's name on their hexagon and place the hexagons together on a wall or bulletin board to form a classroom honeycomb.

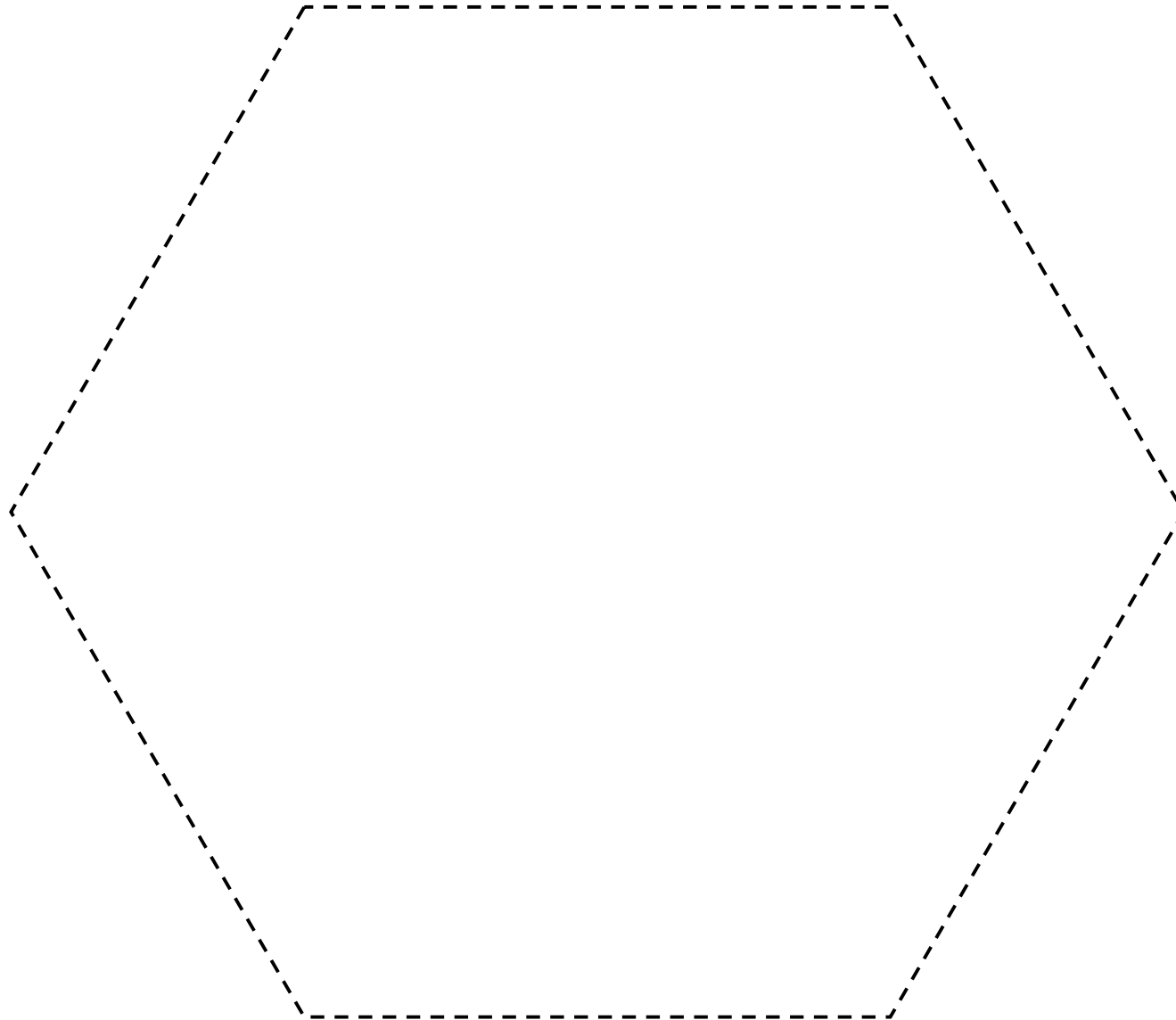


Honeycomb



Photo Credit: User Migco, Wikimedia Commons

Creative Arts *i*Card
Hexagon Stencil



Honeybee Headbands

Materials

- tape
- 9" x 12" yellow construction paper

For each child:

- one black pipe cleaner
- one black crayon
- one 2" x 24" strip of yellow construction paper

Preparation

1. Cut 2" x 24" strips of yellow paper.
2. Create a model honeybee antennas headband to show the children.

Children create bee antennas headbands using craft materials.

Procedure

1. Say: **Today we are going to make bee antennas headbands.** Show the children the model honeybee headband.
2. Guide children to create headbands:
 - Color black stripes on the strip of yellow construction paper.
 - Fold pipe cleaners in half to create a V shape, then tape them on the yellow strip.
 - Tape together the ends of the strip of paper to make the headband fit each child's head.

NOTE: *The headband will be large for the children. Wrap the extra paper around each child's head for added strength and to keep the folded pipe cleaners from hurting their foreheads.*



Materials

- ECHOS CD Track #1
"Bee Dance"
- CD player

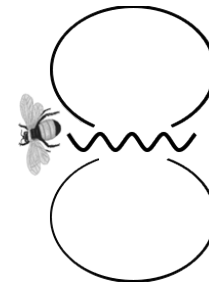
Preparation

Set up the CD player and test the ECHOS CD.

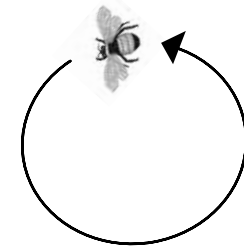
Children create their own bee dance.

Procedure

1. Say: **Today we are going to pretend to be bees and create our own dances.**
2. Say: **Bees dance to communicate the location of a flower.**
3. Play Track #1, *Bee Dance* on the ECHOS CD. Invite children to create their own dance movements.
4. If time permits, invite one child to perform his/her dance while the other children try to imitate it.



waggle dance



circle dance