



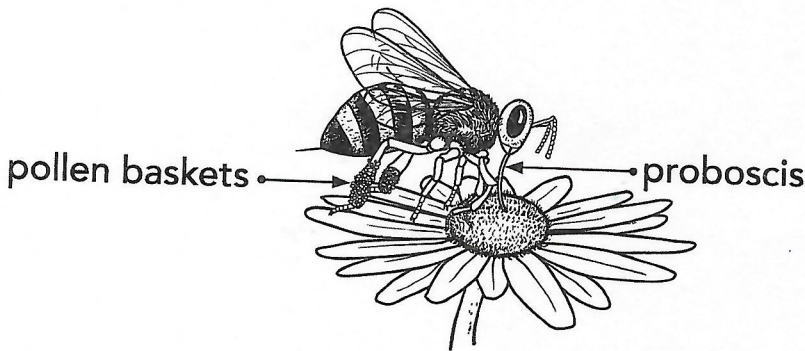
Day 1

Weekly Question

Do all bees make honey?

If you look at the body of a bee, you'll notice some special features. One is the bee's long tongue, called a **proboscis**. A bee's proboscis works like a straw to suck up liquids. This is ideal for reaching **nectar** deep inside a flower.

You'll also notice that a bee is fuzzy. The fine hairs on a bee's body become covered in pollen when a bee visits flowers. The bee uses brushlike hairs on its hind legs to pack the pollen into compact bundles called pollen baskets. This is how honeybees get the nectar they need to make honey and gather the pollen used to feed the hive. In return, flowers are pollinated.



Vocabulary

nectar
NEK-ter
a sugary liquid produced by flowers

proboscis
pro-BAH-siss
the long, tube-like tongue of some insects

A. Use the vocabulary words to complete the sentence.

A bee's _____ works like a straw to suck up _____ found inside flowers.

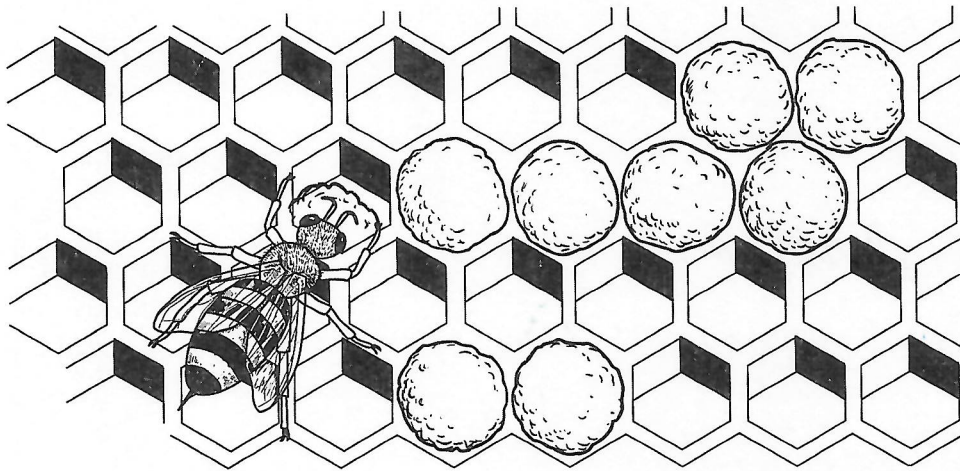
B. Explain how each of these adaptations helps a bee survive.

1. long tongue _____

2. fuzzy body _____

Do all bees make honey?

A honeybee carries nectar back to the hive in a special sack in its body called a honey stomach. Back in the hive, the bee squirts the nectar from its honey stomach into waxy chambers called a **honeycomb**. Other bees then help dry out the nectar by fanning their wings over the honeycomb. Over time, the liquid becomes thicker and sweeter. It turns into honey, which provides food for honeybees all year long.



Worker bees build the honeycomb by using wax from glands on their bodies. They mold the wax with their mouths and feet.

A. Write one thing you learned from the caption above that you did not learn from the passage.

B. Number the steps in the correct order to show how bees make honey.

- ___ Water evaporates from the nectar.
- ___ A bee carries nectar in its honey stomach back to the hive.
- ___ The nectar thickens into honey.
- ___ The bee squirts the nectar into a chamber of the honeycomb.



Vocabulary

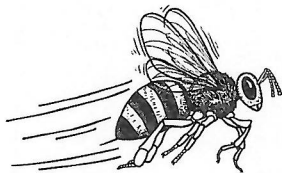
honeycomb
HUN-ee-kohm
six-sided waxy
chambers built by
bees for storing
honey and raising
young

Do all bees make honey?

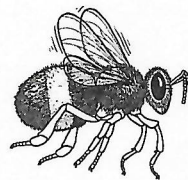


Not all bees make honey. In fact, the word *honeybee* is used only for the type of bee that makes lots of honey. Bumblebees, for example, are different from honeybees. While bumblebees pollinate flowers and drink nectar like honeybees, they don't keep large hives with a honeycomb full of honey the way that honeybees do. Without a large supply of honey in storage for the winter months, most bumblebees die.

- A. Look at the drawings of a honeybee and a bumblebee. On the lines below, compare and contrast the features of the bees.



honeybee



bumblebee

- B. Check the characteristics that apply to each kind of bee.

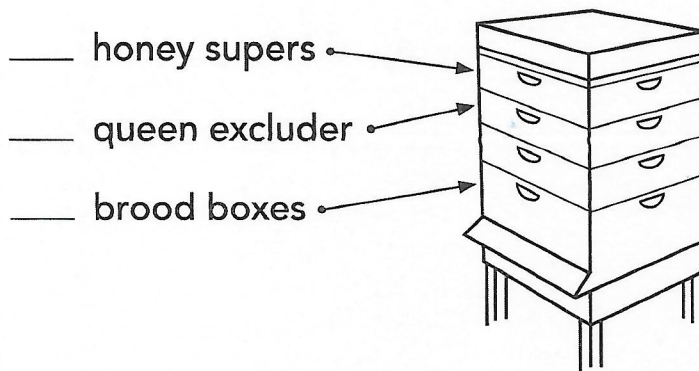
	Honeybee	Bumblebee
Pollinates flowers		
Drinks nectar from flowers		
Produces large amounts of honey		
Creates honeycomb filled with honey		
Often dies in the winter		
Depends on flowers for survival		

Do all bees make honey?



Although not all bees make honey, all bees pollinate flowers. The pollination of flowers by bees is very important to farming. Farmers will even hire beekeepers to bring beehives to the fields when it is time for the crops to be pollinated. For example, beekeepers bring hives to orchards when fruit trees are in blossom. Once the flowers are pollinated, fruit will grow on the trees. Then the bees can be moved to other crops.

This is a drawing of a beehive that many beekeepers use. Read the labels that name each part of the hive. Then, using the clues in the names, find the description below for each part. Write the letter of the description on the line.



- a. The spaces in this grid are too small for the queen bee to get through. It keeps the queen from laying eggs in the honeycomb.
- b. Inside these boxes are hanging frames where the bees can build honeycomb and make honey.
- c. This is where the queen lays eggs and the larval bees are fed by worker bees.

Talk

Since 2006, beekeepers are reporting that a larger than usual number of bees are disappearing. This problem is called Colony Collapse Disorder (CCD). Why do you think CCD has scientists and farmers concerned?



**Day
5**

Weekly Question

Do all bees make honey?

A. Next to each word, write the letter of the correct definition.

- | | |
|------------------|--------------------------------------|
| ___ 1. nectar | a. sweet liquid in flowers |
| ___ 2. honeycomb | b. tube-like tongue |
| ___ 3. proboscis | c. chambers bees make to store honey |

B. Number the steps in the correct order to describe how bees collect pollen and nectar to feed the hive and, in the process, help plants to reproduce.

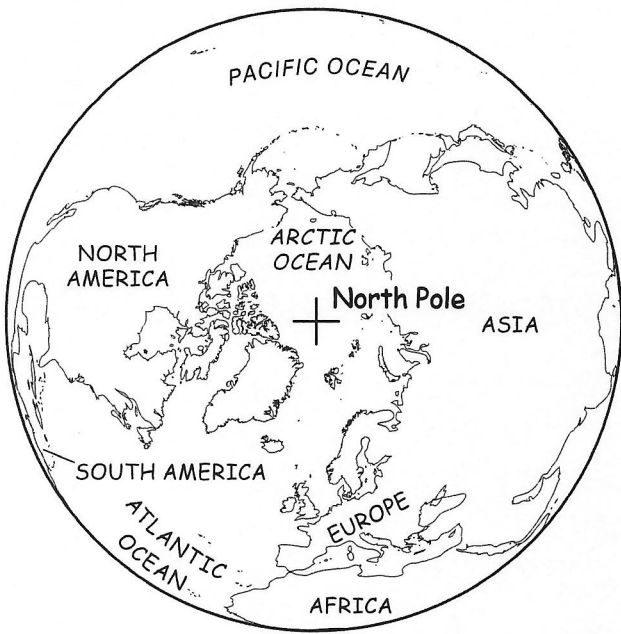
- ___ The bee returns to the hive and squirts nectar into the honeycomb.
- ___ A bee leaves the hive in search of nectar and pollen.
- ___ Bees in the hive turn the nectar into honey.
- ___ As the bee collects nectar from flowers, its fuzzy body picks up pollen.
- ___ The bees use the honey for food during the winter.
- ___ The bee moves from flower to flower, leaving behind pollen that pollinates the flower.

C. List three things that bees do to help people and plants.

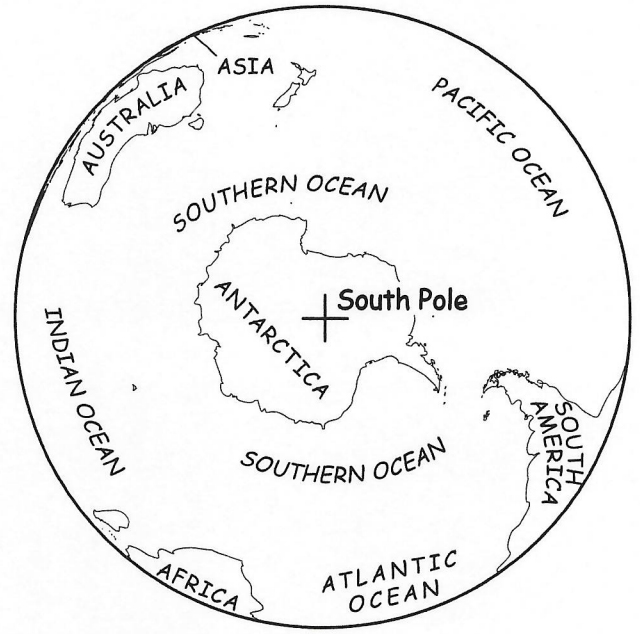
- 1. _____
- 2. _____
- 3. _____

D. What would you tell someone who claimed that all bees make honey?

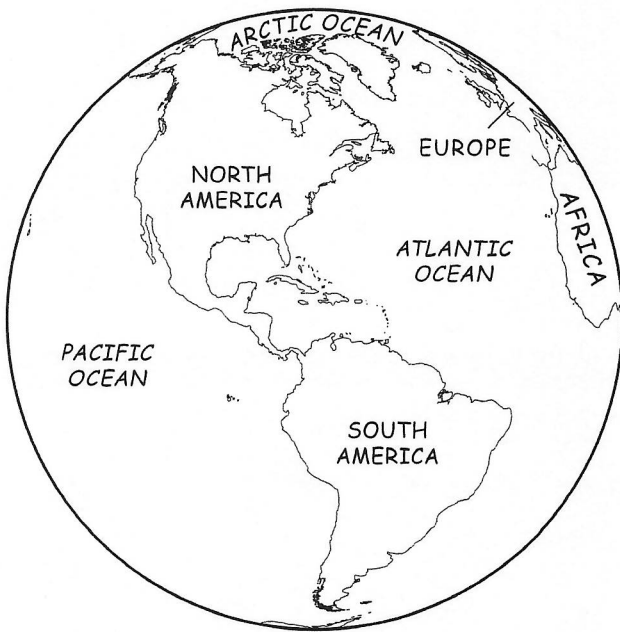
The Four Hemispheres



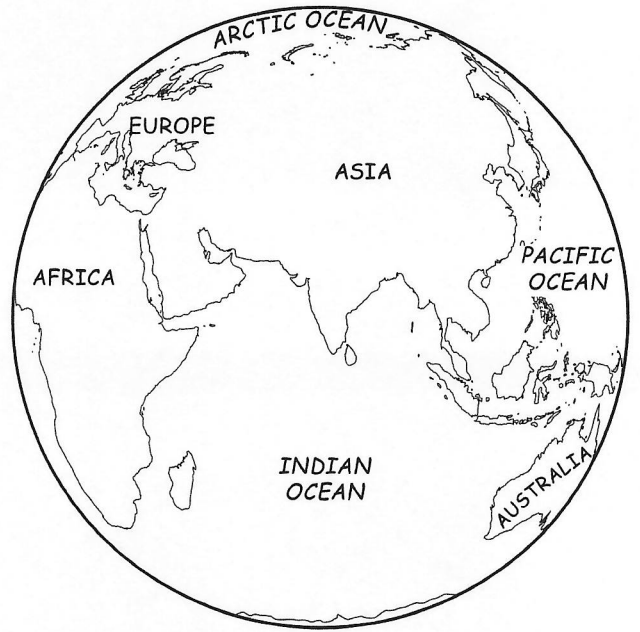
Northern Hemisphere



Southern Hemisphere



Western Hemisphere



Eastern Hemisphere



The Four Hemispheres

Monday

1. The North Pole is located in which hemisphere?

2. The South Pole is located in which hemisphere and on which continent?

Tuesday

1. Which two continents are not in the Northern Hemisphere?

2. Which oceans are shown in the Northern Hemisphere?

Wednesday

1. Which ocean is the only one that is not part of the Southern Hemisphere?

2. Which continents are in both the Northern and Southern Hemispheres?

The Four Hemispheres

Thursday

1. North America is located in which two hemispheres?

2. Is most of Europe in the Western or the Eastern Hemisphere?

Friday

1. In which two hemispheres is most of Asia located?

2. Which continent is in all four hemispheres of the world?

Challenge

Sometimes it is easier to see the distinction between land and water when they are in color. Color the seven continents on the four globes. Be sure to use a different color for each continent. Color the oceans a light blue. Then write a caption below each globe, telling an interesting fact about each.