

BUSY BEE

ACTIVITY BOOK



An Additional Resource to
"The Tiny Compass: Unexpected Journey"

Anatomy of a Worker Bee

Write the name of each body part on the blank lines.



ANTENNA

LEG

THORAX

POLLEN SACK

ABDOMEN

STINGER

HEAD

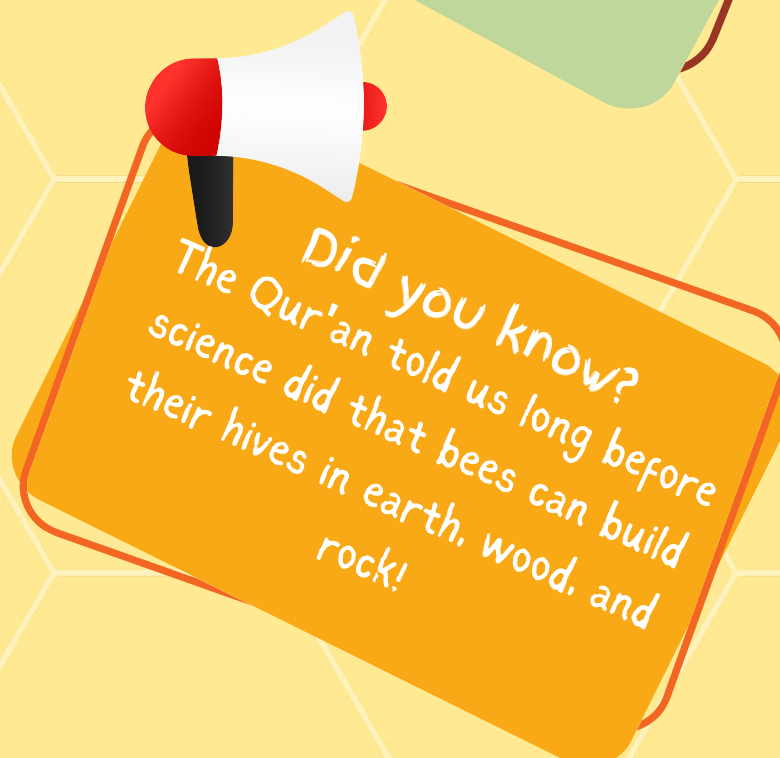
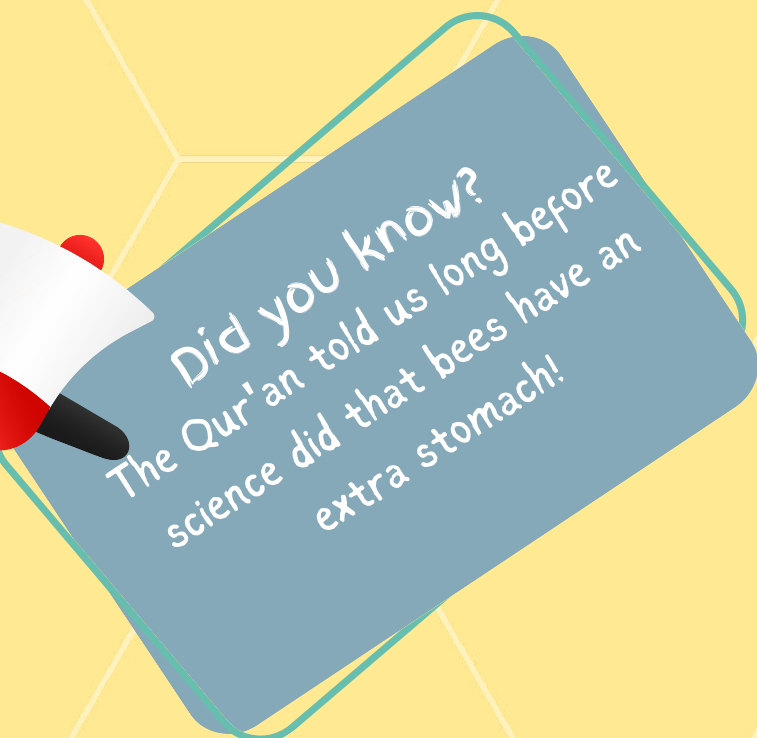
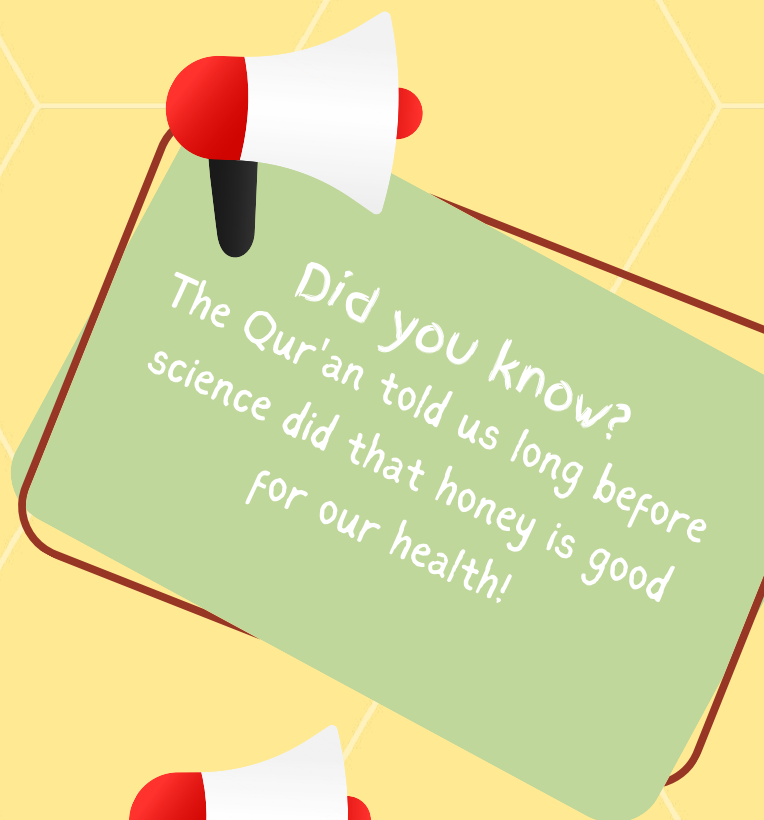
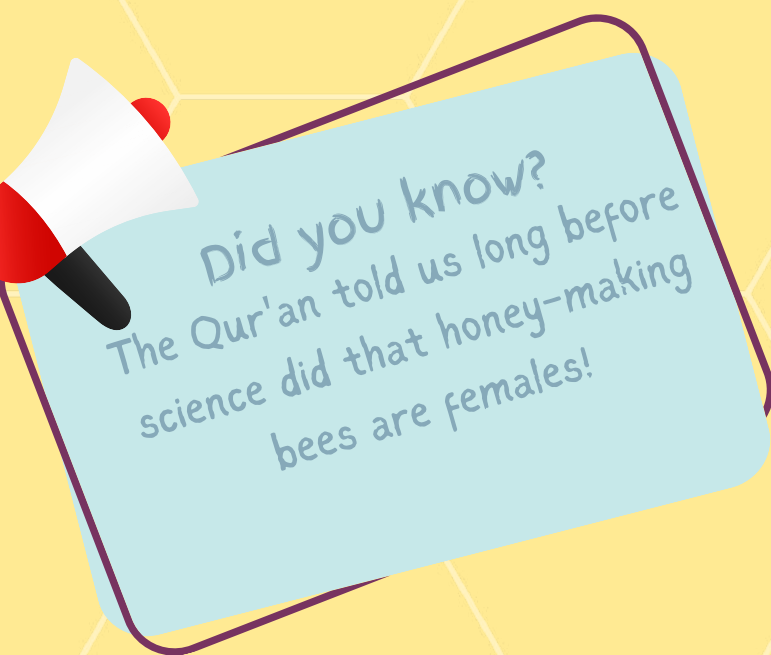
WING

COMPOUND EYE

Bees in the Qur'an

"And your Lord inspired to the bee, "Take for yourself among the mountains, houses, and among the trees and in what they (humans) construct.

Qur'an , The Bees, 16: 68



Be a Tiny Doctor

"Then, eat of all fruits, and follow the ways of your Lord made easy (for you)." There comes forth from their bellies, a drink of varying color wherein is healing for men. Verily, in this is indeed a sign for people who think."

Qur'an , The Bees, 16:69

Honey's cures

1. Sore throat
2. Cold & fever
3. Heart disease
4. Liver tonic
5. Constipation
6. Burns
7. Stomach pain



MAKE YOUR OWN REMEDY!

Ingredients:

- 1 tablespoon of Honey.
- 1/2 tea spoon of turmeric powder.
- 1/2 tea spoon of black pepper (optional)
- 1/4 tea spoon of cinnamon powder.
- 1/4 tea spoon of cardamom powder (optional)
- 10 drops of fresh ginger juice or 1/4 tea spoon of ginger powder (optional)



Instructions:

1. Mix the dry ingredients, then mix in the honey. Stir until smooth. Your medicine is ready.
2. Find a patient who has a cough or cold and try your medicine out!
3. Give your patient 1/2 tsp of it 2-3 times a day.

Bees in the Qur'an

Can you make your way across the page? You must follow the order below!

You can go up, down, across, but not diagonally.



Queen, Drone and Worker Bees

Read the clues to figure out what kind of bee lives in each honeycomb! Write the bee's role on the blank line.



Queen



Worker



Drone

Who am I?

I can only sting once.

Who am I?

I can sting more than once!

Who am I?

I have extra big eyes!

Who am I?

I have my own special chamber.

Who am I?

I have a pollen sack.

Who am I?

I don't have a stinger!

Who am I?

I don't lay eggs or collect pollen.

Who am I?

I pollinate flowers.

Who am I?

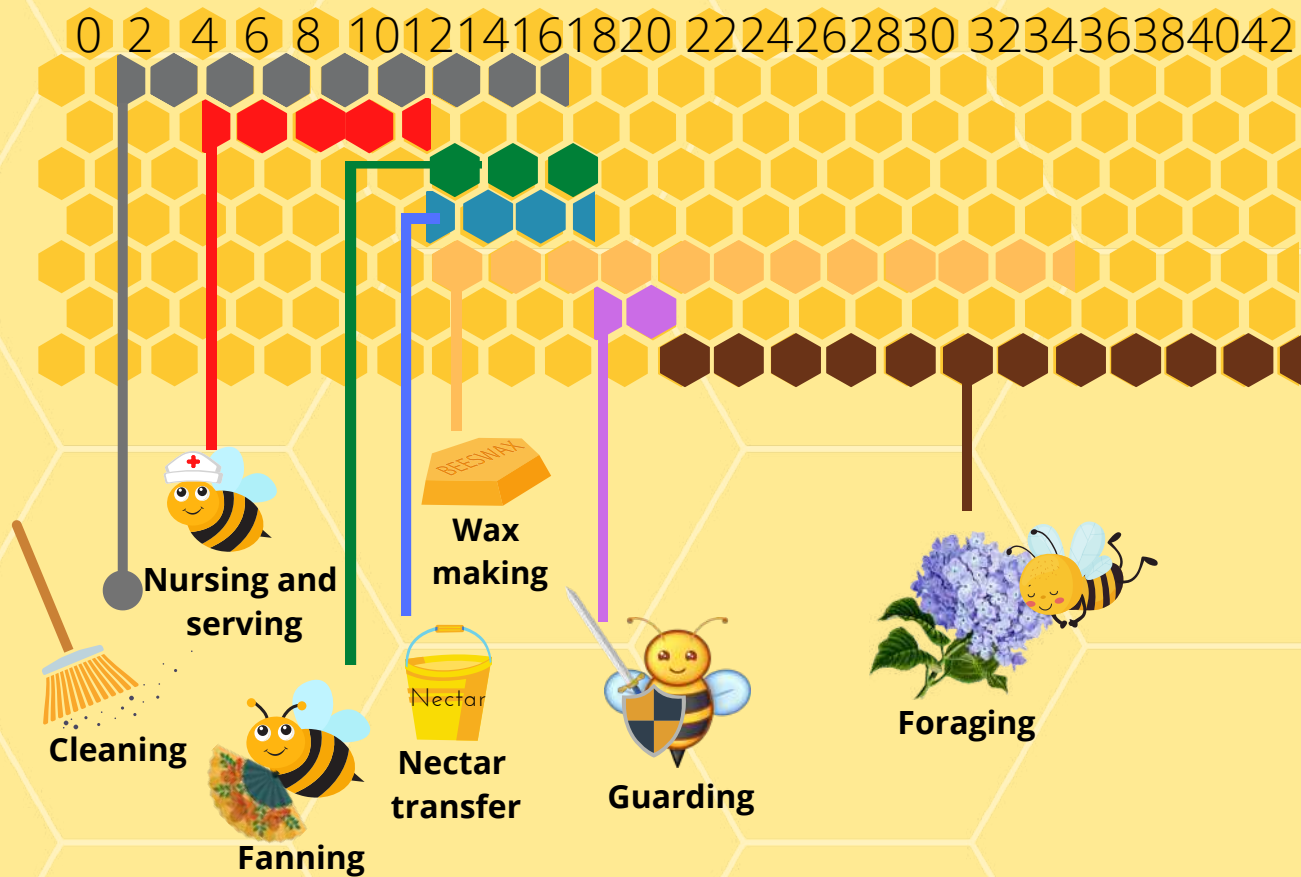
I have an extra long life

Who am I?

I lay eggs.

Worker Bee's Life

Days old



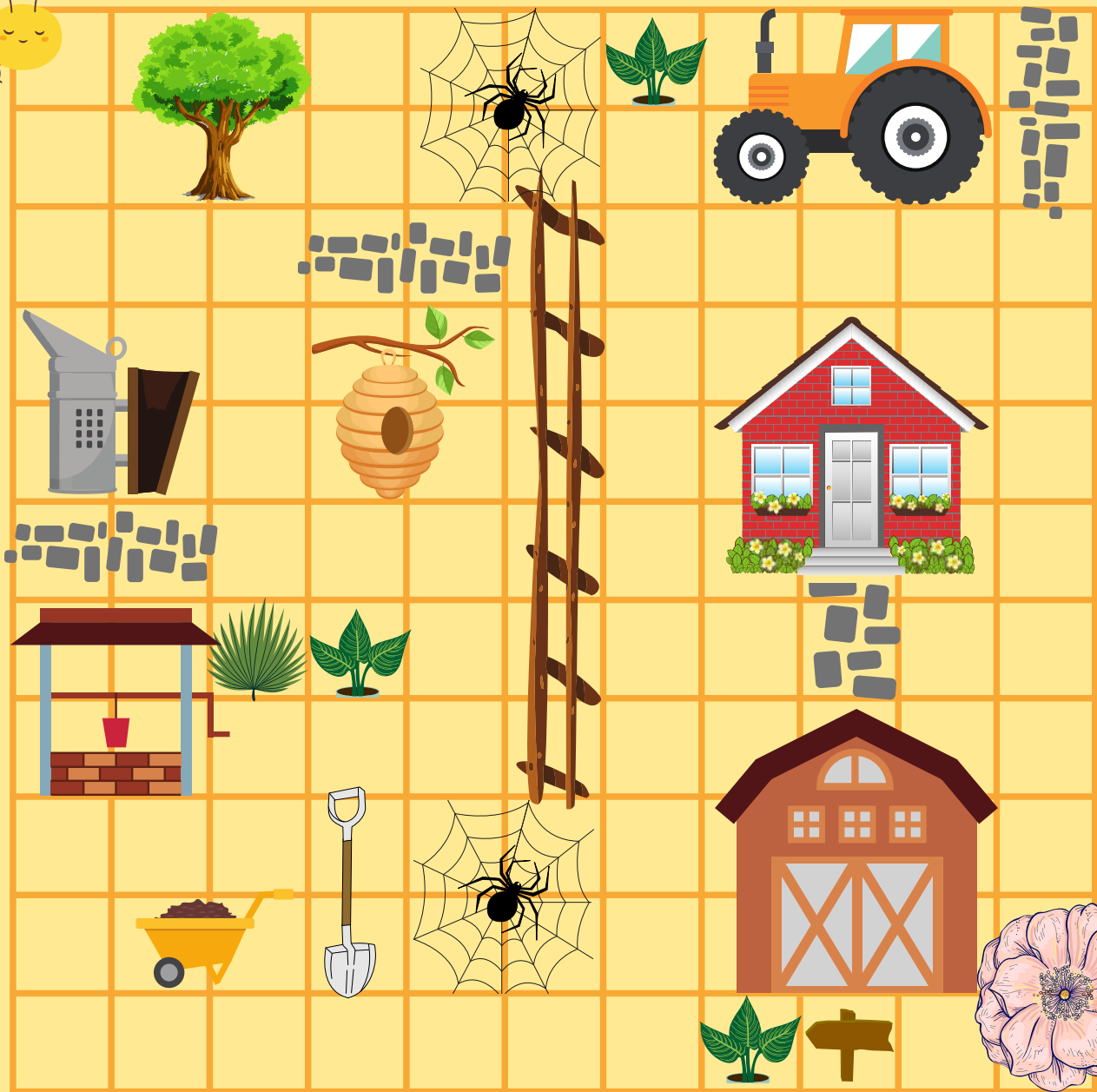
Use the diagram to find out what tasks young and old bees do around the hive. Then write down below what they should be doing at each age!

I am...

6 days old	<input type="text"/>	10 days old	<input type="text"/>
12 days old	<input type="text"/>	2 days old	<input type="text"/>
30 days old	<input type="text"/>	16 days old	<input type="text"/>
20 days old	<input type="text"/>	42 days old	<input type="text"/>

Foraging

Give the bee directions so it can reach the flower without getting trapped. You can tell the bee to move NORTH, SOUTH, EAST, and WEST, but don't forget to tell them how far to go! When you are finished, get a family member to follow your instructions. Does the bee safely reach the flower?



Four sets of dashed lines for writing directions:

Story writing time

CATCHING A SWARM

It's summertime and you are staying at your uncle's farm.

One day, you spot a swarm of bees up a tree. You call your uncle to help, but the tree is very tall. Even though it's hard, you are determined to help your uncle catch the bees. Write all the adventures you are going to have!



Fun Experiments With Bees

You can test the vision of bees and other nectar-eating insects like butterflies and moths. star shapes stimulate bees to find food. don't believe me? Try and see for yourself!

For this experiment, you need:

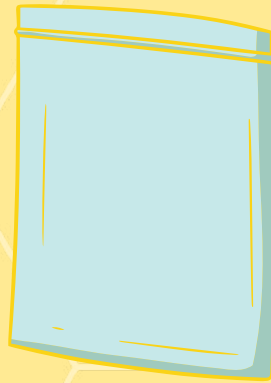
1. 4 black papers, A5 size each
2. 4 Ziploc plastic bags (slightly bigger than index cards)
3. 1 Scissor
4. 4 shallow bowls
5. Bee Food (50 g sugar dissolved in 150 ml hot water)
6. Plain water

Step 1.



Cut out a star, a square, a triangle, and a circle from each piece of black paper.

Step 2.



Put the shapes into ziploc bags to keep them dry.

Step 3.



Find a calm, sunny area you can set up your experiment in.

Step 4.



Place your shapes on the ground. Keep gaps between them!

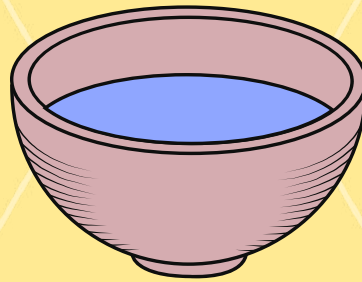
Fun Experiments With Bees

Step 5.



Place one shallow bowl next to each shape.

Step 6.

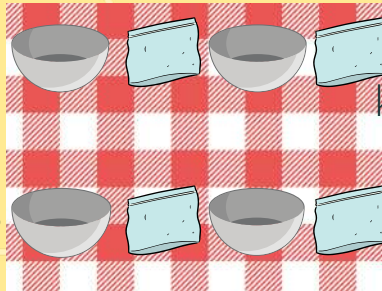


Fill the bowl next to the star with bee food. Fill the other bowls with plain water.

Step 7.



Observe the bowls for several days and see if the bees can find the bowl with bee food. How long does it take the bees to find their treat?



Step 8.

Change the places of the shapes, while keeping the bowls in the same place. What do the bees do now?

Step 9.

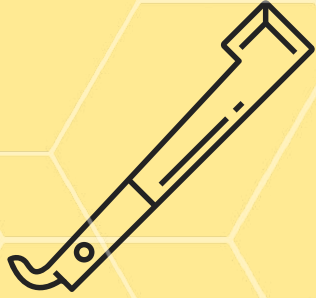


Change the places of the bowls and shapes. Will the bees get confused? Watch and see!

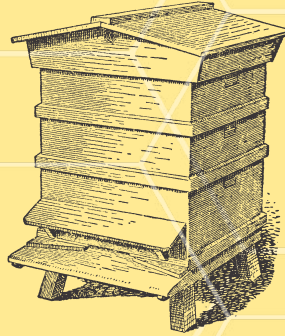


Bee Keeping Tools

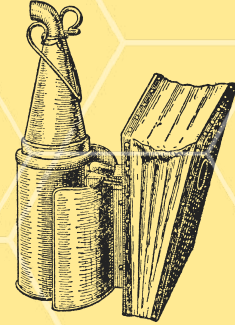
Color in the tools that a beekeeper needs
and cross out the tools they don't need.



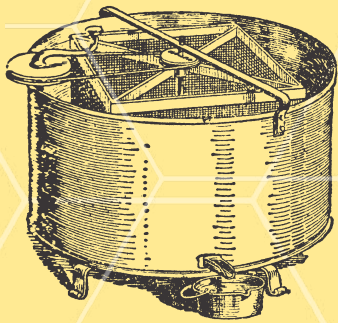
Hive tool



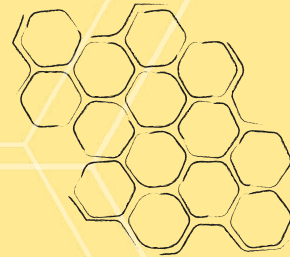
Bee hive



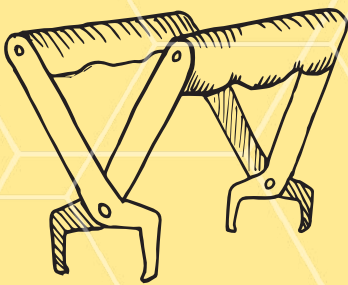
Smoker



Honey extractor



Honey comb



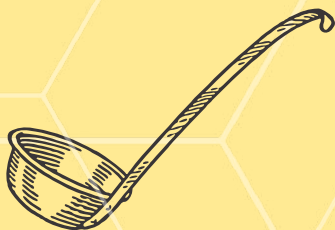
Frame grip



Bee suit



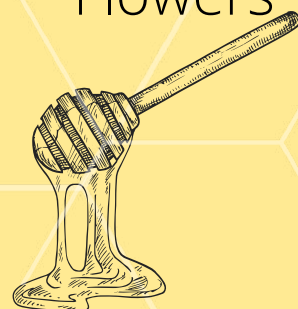
Flowers



Ladle

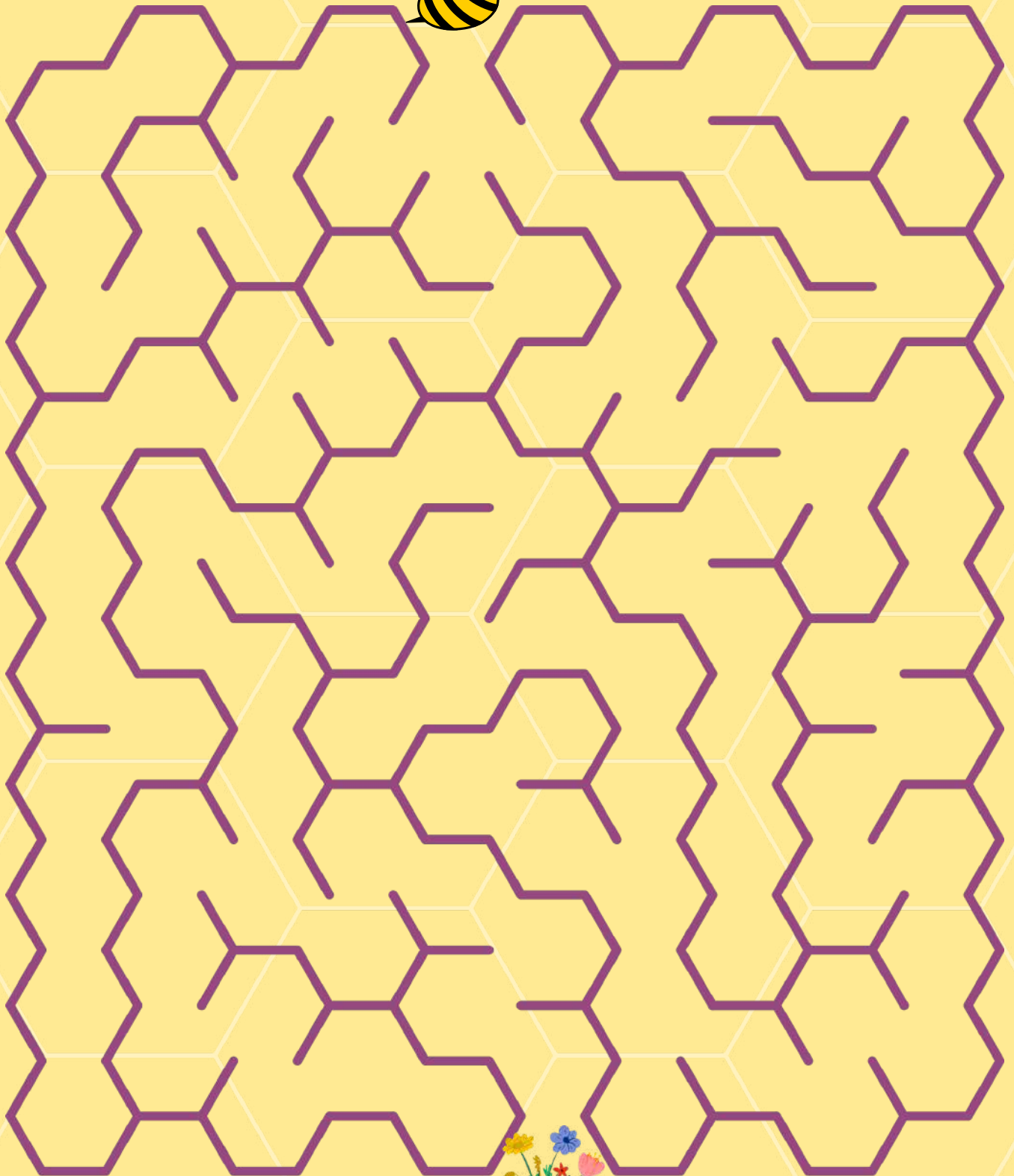


Ball



Honey dipper

Honeycomb Maze





Let's Discuss "Unexpected Journey"

- What does Lilbee learn from Mother Bee about why bees are created?

- How does Lilbee feel about her hive being moved to the almond orchard?
- How does the farmer feel? How does the farmer's son feel?

- Mother Bee say that a bee owes their life and everything else they have to Allah.
- Can you list some of the things you have in your life that you are grateful for?

- Why does Sophia want to help Lilbee and her hive?

- If you could speak to Lilbee at the almond orchard, how would you explain what's happening to her? How would you try to help?

- Sophia helps Lilbee and her hive by making a video showing how poorly bees are treated at the almond orchard. If you were helping Sophia, what you would tell others to educate them about bees?

- Lilbee's role in her family is to be a good forager bee. She takes care of her younger siblings and gathers ingredients to make honey. What role do you play in your family?
- What tasks do you help your family with?

"Unexpected Journey" Quiz

1.What was killing the bees?

- A. Oil
- B. Rain
- C. Pesticides

2.What was the name of Lilbee's sister?

- A. Big bee
- B. Sister bee
- C. Nahl

3.What did people do when they found out pesticides were killing the bees?

- A. Everyone got together to protest the pesticides
- B. They did nothing
- C. They were happy

4.What type of tree was in the orchard?

- A. Apple tree
- B. Cherry tree
- C. Almond tree

5.Who was the farmer working with?

- A. His neighbor
- B. His son
- C. His friend

6.What was the name of the girl who helped the bees?

- A. Hanifa
- B. Sara
- C. Safia

7.What is a male bee called?

- A. Drone bee
- B. Queen bee
- C. Worker bee

8.Why didn't Lilbee want to go foraging at first?

- A. She was worried
- B. She was lazy
- C. She was sick

9.What are baby bees called?

- A. Larvae
- B. Caterpillars
- C. Maggots

10.What type of game were the young bees playing in the truck?

- A. Hide and seek
- B. Swinging
- C. Sliding

11.What do bees collect from flowers?

- A. Pollen and Honey
- B. Nectar and pollen
- C. Honey and nectar

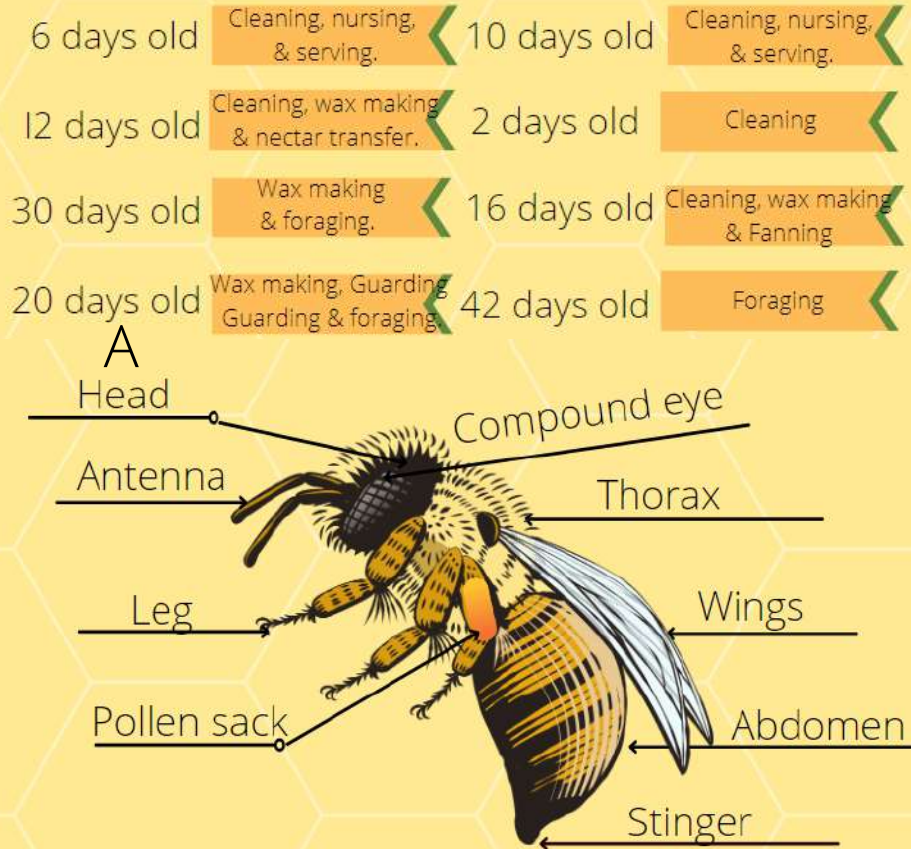
12. What did the farmer do to the bees?

- A. Kill them
- B. Move them to the orchard
- C. Take them on vacation

Answer sheet

Quiz answers

1. C
2. A
3. C
4. B
6. B
7. A
8. B
9. A
10. C
11. B
12. B



Who am I?
I can sting more than once!
Queen bee

Who am I?
I don't have a stinger!
Drone bee

Who am I?
I lay eggs.
Queen bee

Who am I?
I have my own special chamber.
Queen bee

Who am I?
I pollinate the flowers.
Worker bee

Who am I?
I can only sting once.
Worker bee

Who am I?
I have a pollen sack.
Worker bee

Who am I?
I have an extra long life.
Queen bee

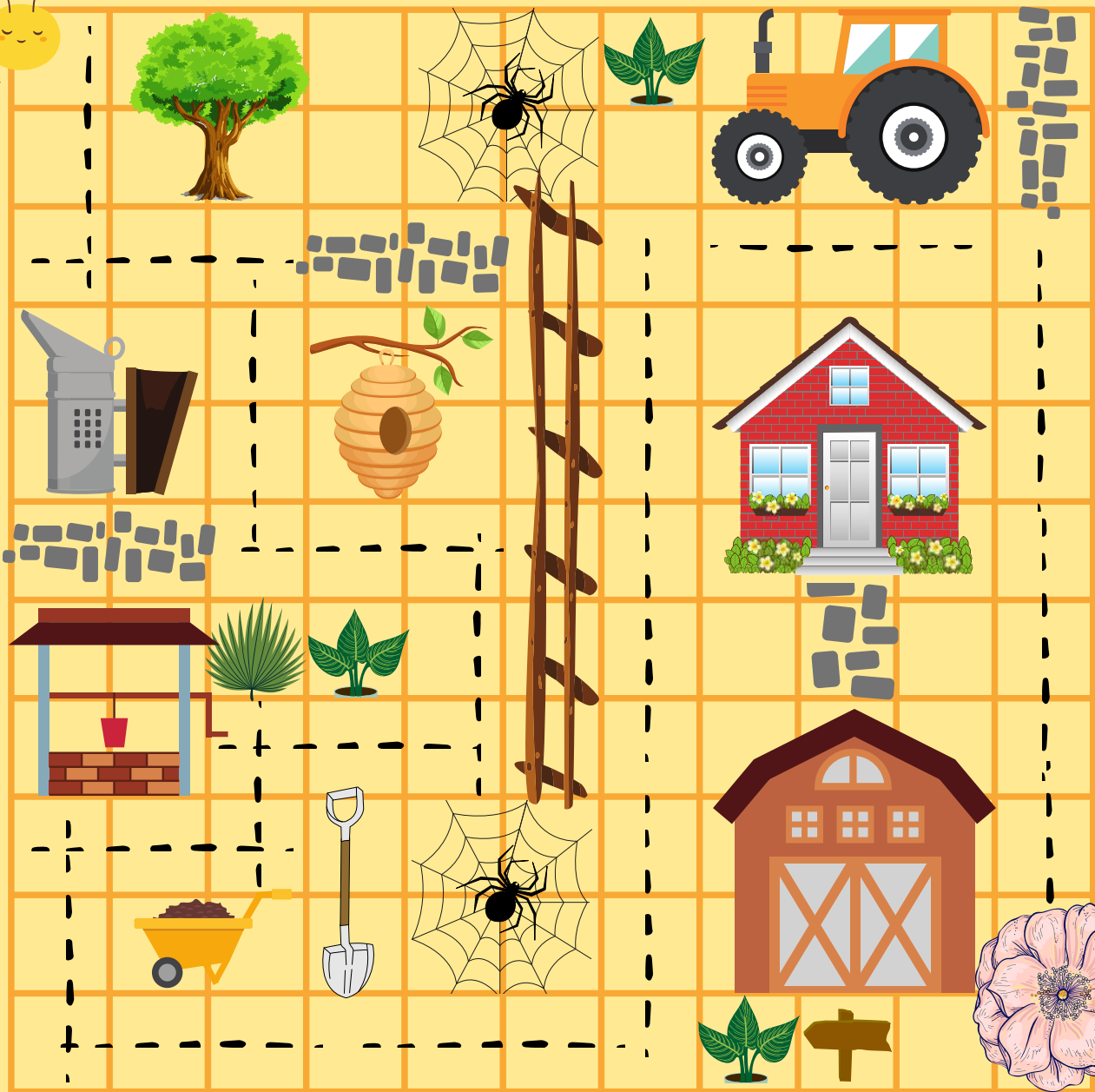
Who am I?
I have extra big eyes!
Drone bee

Who am I?
I don't lay eggs, nor collect pollen.
Drone bee



Answer Sheet

Give the bee directions so it can reach the flower without getting trapped. You can tell the bee to move UP, DOWN, RIGHT, and LEFT, but don't forget to tell them how far to go! When you are finished, get a family member to follow your instructions. Does the bee safely reach the flower?



3 down
2 right
3 right

2 right
2 down
2 left

1 down
2 left
2 down

6 right
8 up
4 right
7 down