

Lesson Plan

Topic: **Why bees are so important in our life**

Aims:

- to expand students' vocabulary for describing a bee life and honey features
- to help students to read and understand nutritional and some medical information
- to develop students' ability to work effectively in groups
- to develop students' ability to read for specific information from a text source

Procedure:

Warm up (5 min.)

Hand out student worksheets and ask your students to read the quotation and say what message it gives us.

"If the bee disappears from the surface of the earth, man would have no more than four years to live."

Albert Einstein (?)

Ex 1 (7 min.)

Set up task 1 by putting students in four groups. Tell your students that they are going to watch a movie and complete all the twelve facts about bees and their life. Ask them to read all the sentences before you play the movie:

"Facts why bees are SO important - Get Planting"

<https://www.youtube.com/watch?v=T3TSQbkwi1w&index=9&list=PLnM27b44gHBl46Iu4DYebaydHyfNCRRh1>

After watching the film, let the students compare their answers in groups and then elicit group feedback. Check pronunciation.

Exciting facts about honey bees

- 1. Honey bees can fly for up to miles, and as fast as 15 miles per hour.*
- 2. Honey bees are environmentally and are vital as pollinators.*
- 3. It is the insect that produces food eaten by man.*
- 4. Honey is the only food that includes all the substances necessary to life.*
- 5. Honey bees have been around for of years.*
- 6. A hive of bees will fly 90,000 miles, the equivalent of orbits around the earth, to collect 1 kg of honey.*

7. *The average worker bee produces about 1/12th of honey in its lifetime.*
8. *The honey bee's wings stroke incredible fast, about 200 per second.*
9. *Honey bees have 6 legs, 2 compound eyes made up of thousands of tiny*
10. *It takes one ounce (1 oz = 28,35 g) of honey to a bee's flight around the world.*
11. *A honey bee visits – 100 flowers during a collection trip.*
12. *Honey bees communicate with one another by “.....”.*

Answers:

1. six 2. friendly. 3. only. 4. sustain. 5. millions 6. three 7. teaspoon 8. beats 9. lenses 10. fuel 11. 50 12. dancing

Ex. 2 (18 – 20 min.)

Hand out four texts, so that each group has a different text*:

- group A – Honey bees as the best pollinators
- group B – Health benefits of honey
- group C – Honey in our kitchen
- group D – Honey bees products other than honey

Tell your students to read the text in groups and, on the basis of the information provided, make a poster. Each poster should be entitled the same as the text given. Provide your students with an A3 format sheet and some markers, crayons or pens, if necessary. Monitor students' work, help them when needed. Collect the posters and show them to the whole class.

*all the texts come from different websites; a list of the websites addresses is provided below:

<http://www.bees.techno-science.ca/english/bees/pollination/default.php>

<http://nativeplants.msu.edu/pollination>

<http://www.medicalnewstoday.com/articles/264667.php>

<http://www.rodalorganicle.com/wellbeing/20-astonishing-uses-for-honey-in-out-of-the-kitchen/slide/21>

<http://www.bbc.co.uk/food/honey>

<http://recipes.howstuffworks.com/food-facts/5-things-you-can-make-with-honey.htm>

<http://www.prevention.com/food/healthy-recipes/9-recipes-and-cooking-tips-with-honey/slide/2>

<http://www.bees-products.com>

https://en.wikipedia.org/wiki/Category:Bee_products

Ex. 3 (7 min.)

Tell your students they are going to watch a movie showing how honey is made. This time they are supposed to complete the text and do the crossword they have on their worksheets. Before you play the film, let the students read the text first. After they have watched the movie ask them to compare the answers in groups. Finally, check the answers with the whole class by asking individual students to read the answers.

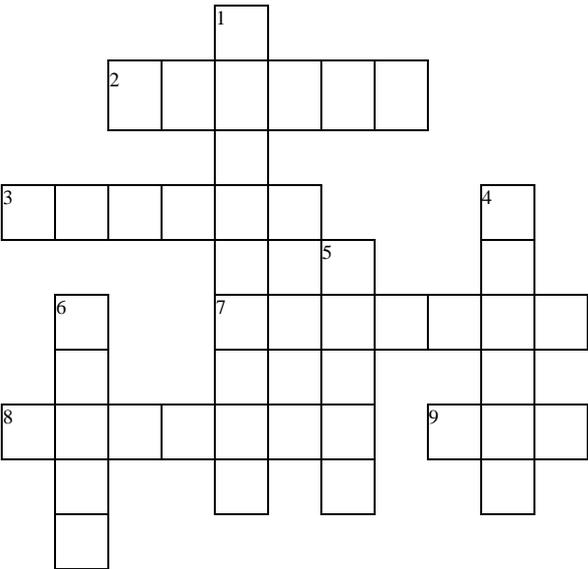
“How do bees make honey”

<https://www.youtube.com/watch?v=I6E0yB0Ev0o&list=PLnM27b44gHBI46Iu4DYebavdHyfNCRRh1&index=5>

stomach worker nectar pollination inversion tongue honey glucose cells drone wax

How bees make honey

In order to make honey, bees must collect (4 down) from flowers. A (3 across) bee is the bee which collects the nectar. The nectar is collected with a long (2 across). Then it goes through the mouth and into the honey (7 across) where it is stored. Inside the honey stomach enzymes help transform the sugar and the nectar into two simple sugars: (8 across) and fructose. This process is called (1 down). Next, the bee spits out the inverted nectar back to its mouth and gives it to other bees or puts it into empty (6 down) . Perhaps that is why (5 down) is sometimes called the most delicious vomit on the planet ;)) Finally, the bee covers the cell with a cap made from (9 across) to seal the cell.



Answers:

In order to make honey, bees must collect **nectar** from flowers. A **worker** bee is the bee which collects the nectar. The nectar is collected with a long **tongue**. Then it goes through the mouth and into the honey **stomach** where it is stored. Inside the honey stomach enzymes help transform the sugar and the nectar into two simple sugars: **glucose** and fructose. This process is called **inversion**. Next the bee spits out the inverted nectar back to its mouth and gives it to other bees or puts it into empty **cells**. Perhaps that is why **honey** is sometimes called the most delicious vomit on the planet ;)) Finally, the bee covers the cell with a cap made from **wax** to seal the cell.

Extra:

If there is some time left, you can play another movie which is a good summary of this lesson.

“How do bees make honey?”
<https://www.youtube.com/watch?v=sCVR1MNgm6A&index=4&list=PLnM27b44gHBI46Iu4DYebavdHyfNCRrh1>