

Honeybees – A Mythic Unit: Introductory Lesson

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I have a riddle for you:

I don't live very long.

I am very small, but I work very hard my whole life.

I can communicate with the others of my kind.

I even make food for humans, but they still don't like me very much.

Who am I? (mystery)

Close your eyes and imagine a bee just flew into the room and is heading to your desk. What does your body immediately want to do? What do your arms and hands do? What expression do you have on your face when that bee is buzzing around your head? Why? (engage emotions)

Now, the bee is still buzzing and it's flown right in front of you. Take your magic finger and draw a circle around the bee. You just created a clear bubble around it which works like a magnifying glass so you can examine it carefully. You can let the bubble sit on your desk, or you can hold the bubble in your hand. What do you see? Where are its wings? Where are its legs? Does it have antenna? Draw the bee that you see. (create images in the mind's eye)

This is what scientists do. They examine things very closely and observe carefully what they see and hear. During our discoveries about bees over the next little while, you are going to be bee researchers – scientists that study bees. Scientists always start off with what they already know about a topic and then research more. I'm going to share some information with you today and, as a bee researcher, you will probably have many questions you would like to ask about bees afterwards. (role play)

Did you know.....

- The bee's legs have little sacks or pockets on them? As they wander from flower to flower, the pollen sticks to their legs and they collect the pollen into the sacks to transport them back to the hive. Why would nature have created these sacks? If you had sacks on your legs, what would you use them for? (Think-Pair-Share)

- only 2 groups can sting (describe stinger)

The worker bees and the queen can sting. The stinger is so twisted and clawed that when they sting, they cannot pull their stinger back out. It stays in the person or animal's body and tears out the bee's abdomen. Therefore the bee dies after stinging. Discuss whether bees would want to just go around stinging all day, or only when they feel they have to? For what reasons would you think they would sting? (engage the emotions: poor bee – it dies just because it wants to protect itself, its queen or the hive, or just because it felt threatened. This will create a realization of why it's better not to wave arms around when a bee is close.)

3. Today, we are going to play a game in which we are going to name the parts of the bee's body. In teams of 4, you (the bee scientists) will piece together the bee's body and add the names of the body parts. Before gluing it, you will check the answer key to ensure it is correct. Once it's correct, you will glue it into place. When complete, you will show it to me and write your team's name on the board. The challenge is to complete this activity in less than 10 minutes. (game)

A good scientist questions their findings and the information that they have. As bee researchers, do you think that nature has designed the bee's body in this way for no reason at all, or do your scientific senses tell you that each body part has a purpose and/or reason? Collectively, or as a 'think, pair, share', go over each part of the bee's body and discuss the purpose of it and whether it is advantageous for helping the bee to be hard-working and productive or detrimental. (binary opposites)

Conclusion:

Write in your 'bee researcher' journal about the following:

In what ways have you seen that the bee is a hard-working creature? Do you feel that the hive and the bee's body have been designed by nature to be useful and efficient? Explain your thoughts.

The plan would be to do this same entry in the journal at the end of the unit, once the students have had a chance to learn more and see what the life of a bee is all about.

Explain that scientists keep a log of their research and findings. They (the students) will also keep a journal into which they will make an entry after every lesson / discovery session we have. They will record their bee researcher information, ponderings and revelations in this journal.

End off with:

What goes zzub, zzub? A bee flying backwards.

What does a bee order at McDonald's? A hummmmm-burger.

Can you come to school tomorrow with a bee joke? (jokes/humor)