Name:

## Phenomenon: The Effect of Manuka Honey Guided Inquiry Lesson

## What do you notice? (Observation)

Rosie gave the giraffe water with honey in it. She also put a dollop of honey on the ostrich's skinned knee and an ostrich-sized bandage on top.







What do you wonder?
(Question)



Why does she do that?

What information do you have?



As Rosie watched, her mom washed the cut and then got a tube of honey.

"Why are you giving the puppy honey?" Rosie asked.

"This special honey kills germs," her mom explained.

"Remember when I gave you tea with honey for your sore throat?"

Rosie nodded. The honey had made her throat feel better.



What do you think? (Hypothesis)



I can pretend that a cup with jello in it is like a knee. If I scratch the top of the jello with a toothpick it can be like a skinned knee. Then, if I put Manuka honey on it and a bandage on top, I think

(circle one)

No germs will grow

Some germs will grow

A lot of germs will grow

#### Experiment



I scratched the tops of four cups of jello. I put nothing on the first cup. I put only a bandage on the second cup. I put just Manuka honey on the third cup and I put Manuka honey and a bandage on the fourth cup.









I noticed (Data)











After 5 days, there were a lot of germs in the first cup. The second cup had some germs. But, the cup with just manuka honey and the cup with the manuka honey and bandage had no germs.

# I learned that (Conclusion)



I can pretend that the jello with scratches is like a skinned knee. Putting Manuka honey on a pretend skinned knee (circle)

Kills germs

Does not kill germs

#### Tell Others



I learned that if I put Manuka honey on a pretend skinned knee, the Manuka honey (circle one)

kills germs

does not kill germs

### Experiment 2: The effect of Manuka honey on a shell-less egg filled with water

Predict what will happen to a shell-less egg filled with water when Manuka honey is put on it. (circle one)

The egg will get bigger?

The egg will get smaller?

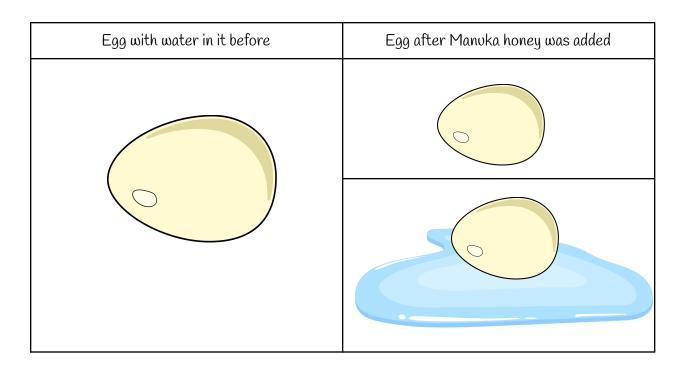
The egg will stay the same size.

What happened when Manuka honey was put on a shell-less egg filled with water? Why? (circle one)

The egg got smaller because water came out of it

The egg got bigger because water went into it

### Match what the egg looked like after putting Manuka honey on it



Making Connections: Remember that living things need water to live. If the egg is like a germ, and Manuka honey makes it lose water, what might happen to the germ if it loses a lot of water? How does this help you understand how Manuka honey can kill germs?