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Buzzy Bees

(picture website – see dropbox folder final version)

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Engage

Bees are having a hard time …

Why is that? What is the problem?

You can do some research on this within your group. Write down what you have found below.

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Investigate

Search for little creatures

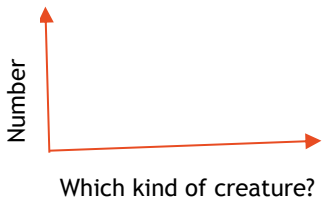
Let's go outside… See if we can find some bees or other little creatures.

Which kind of little creature?	Amount
Insects (6 legs! 3 body parts!)	
- Butterfly	
- Ant	
- Fly	
- Bee	
- Beetle	
- …	
Spider (8 legs! 2 body parts!)	
Worm (no legs ☺)	
A lot of legs… (e.g. woodlouse, millipede, etc.)	
Snail (slimy!)	

You will all get a big piece of paper (A3). Put the amount of little creatures for each category in a graph!

Y – axis (**number** of little creatures)

X – axis (which **kind of little creature**)



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Conclude

Present your graph to the other children in the class.

Keep in mind that you need to answer the following questions:

- Which kind of animal did you find the most of? .....
- Did you find any bees? .....
- What could be the reason? .....

The home of the bees - the honeycomb conjecture

Engage

Honey Bees are social animals, they live together in big groups in a very compact ‘house’, the bee hive. In this bee hive, they store their food (honey) and breed their larvae, which look a bit like sausages.

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You must know… The home of the bees is made out of wax, which is very ‘expensive’ to make. Bees need a lot of honey in order to make just a little bit of wax. So the challenge is to use as little material as possible in order to build their house.

Investigate

A challenging task…

Can you find the most efficient way of building a ‘bee home’ with the materials you have?

(make it seen from the front)

Take into account:

- Use as few sticks as possible
- The chambers can be easily piled upon each other
- We need to have as many chambers as possible on our piece of paper (A3)

Conclude

What form do the chambers need to have? ……

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Design your own honeycomb…

Plan

You will receive paper and glue and have to design your own honeycomb.

- No empty spaces between the shapes
- Needs to be strong
- Size of the honeycomb: at least 40 cm x 40 cm

Discuss how you will tackle this task within your group, then you can start creating it.

Create

These honeycombs will be used later in the activity ‘decoding the language of bees’ in order to collect nectar.

Strange behaviour - Decoding the language of bees

Investigate

How do bees talk to each other?

Draw the movement of the bee when…

The flowers are really close (less than 50 m).

The flowers are far away.

The flowers are quite far away.

The flowers are really far away.

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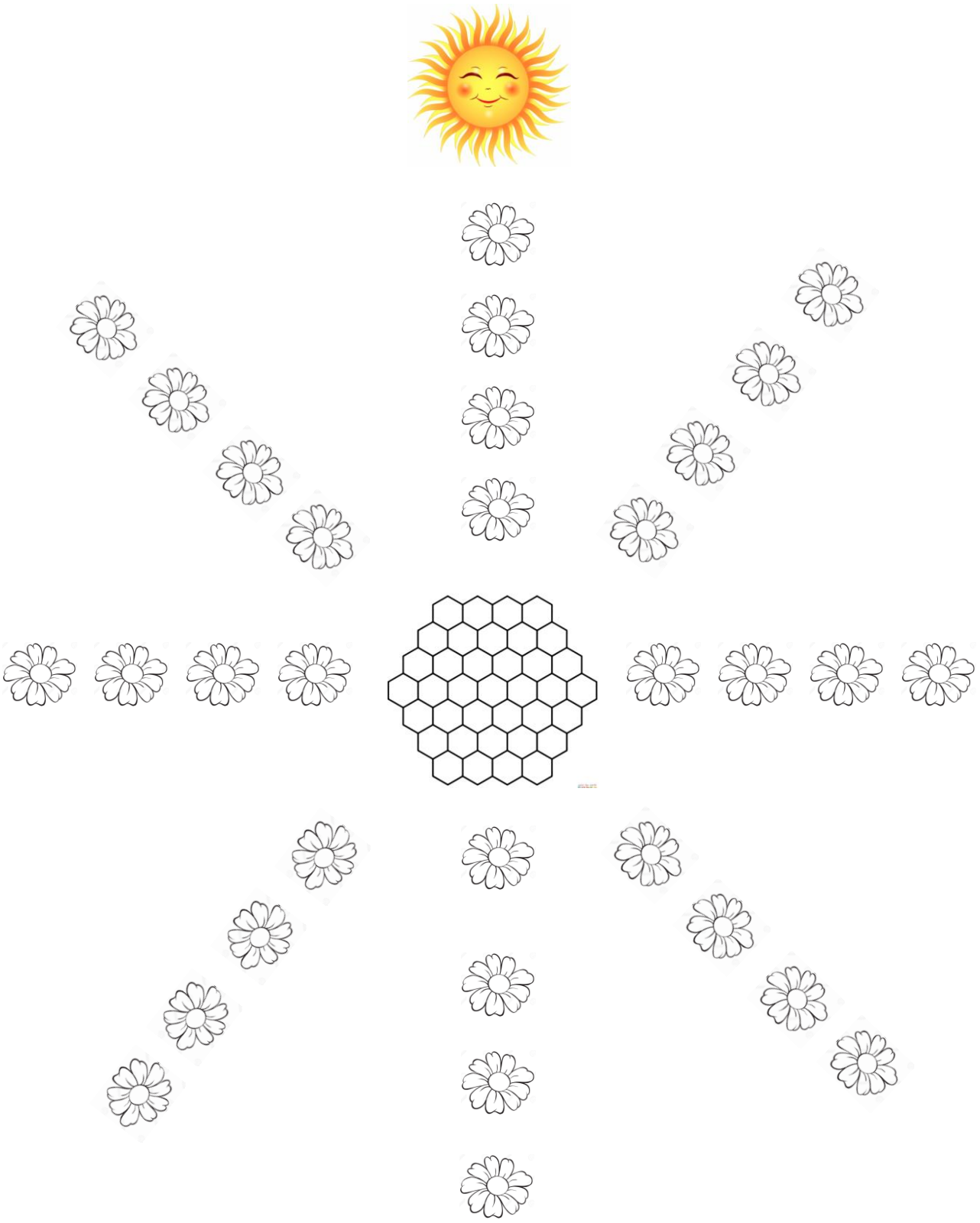
Collecting nectar



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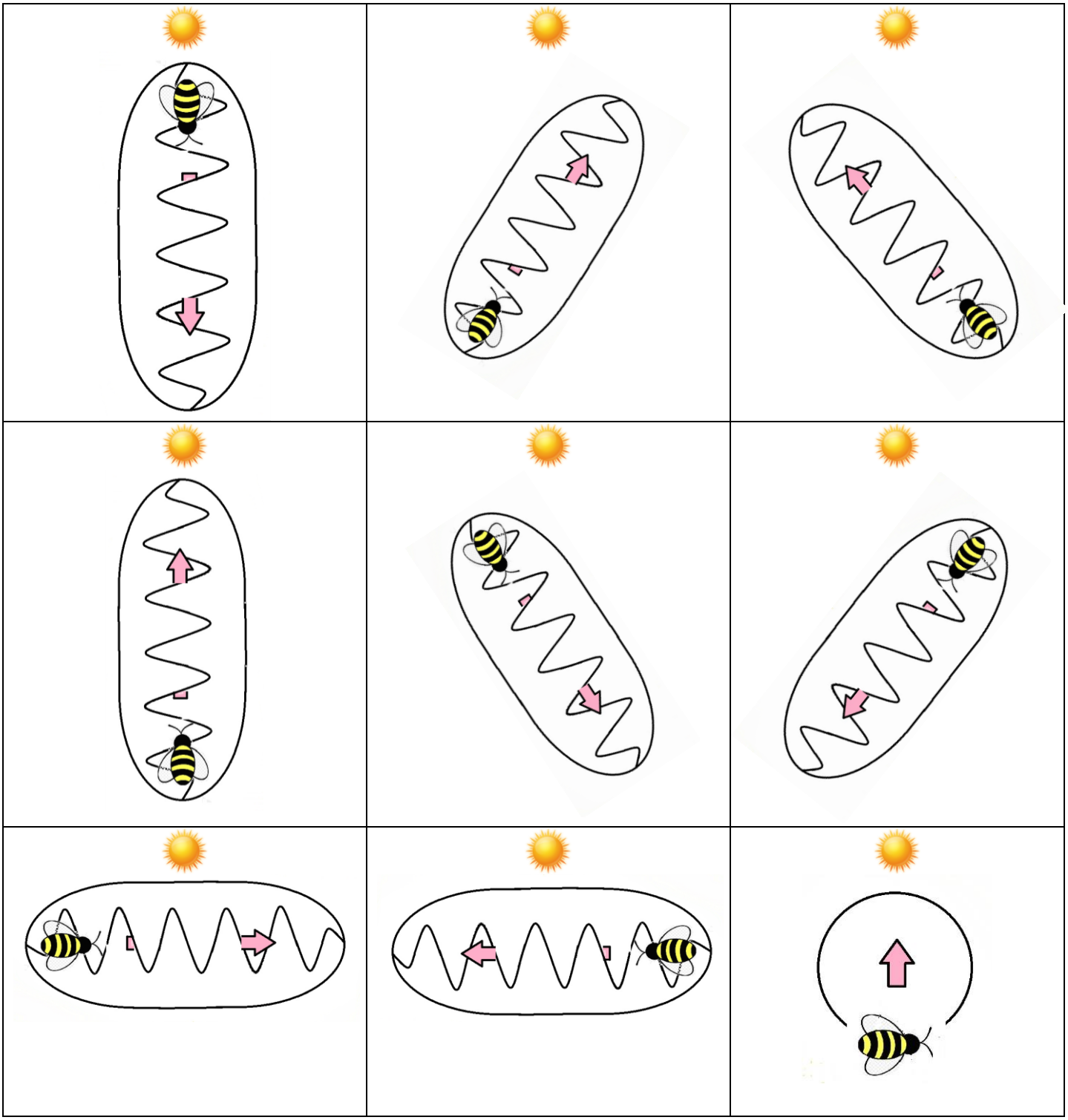
Example of possible codes: *(= top of the honeycomb)*



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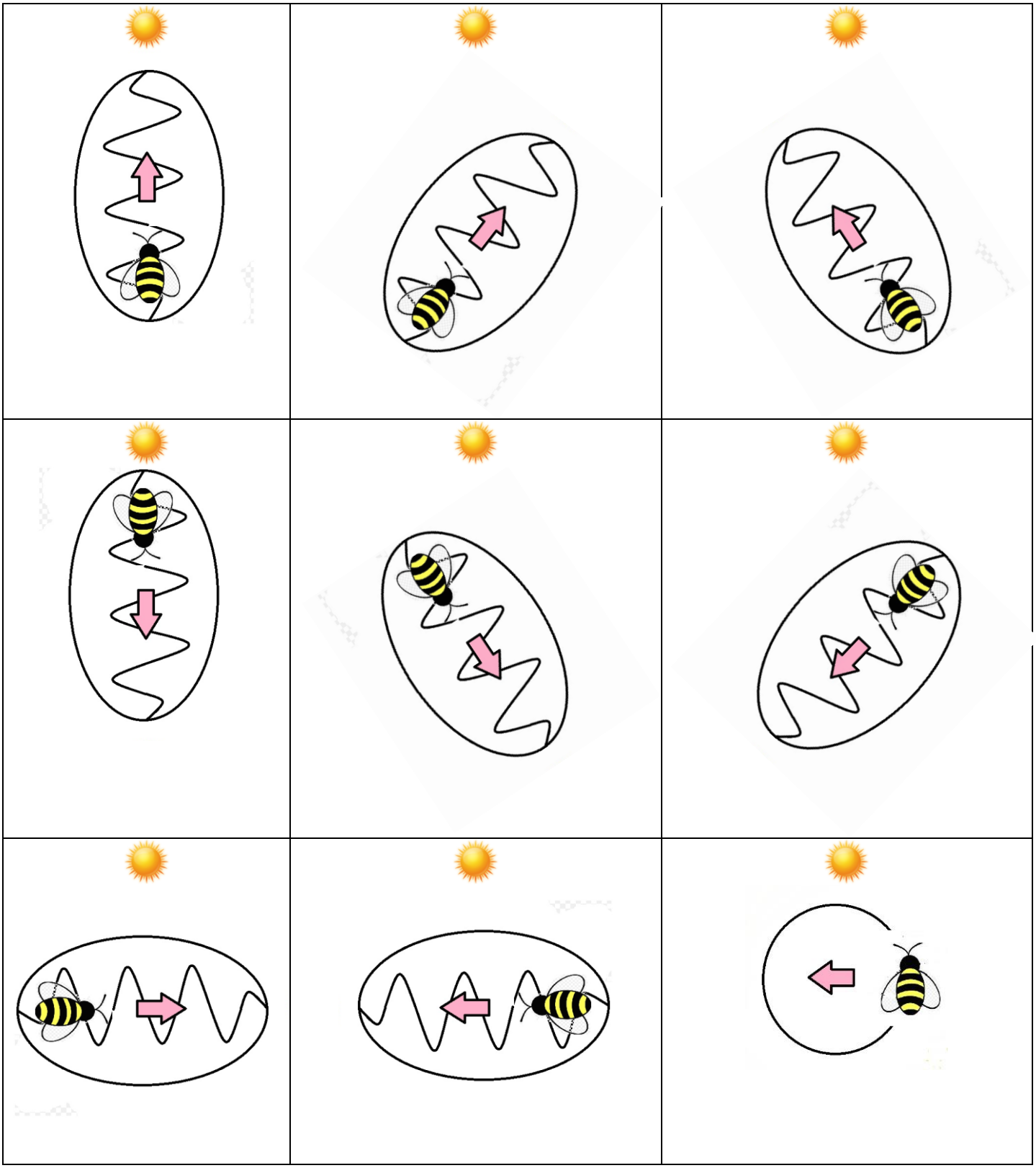

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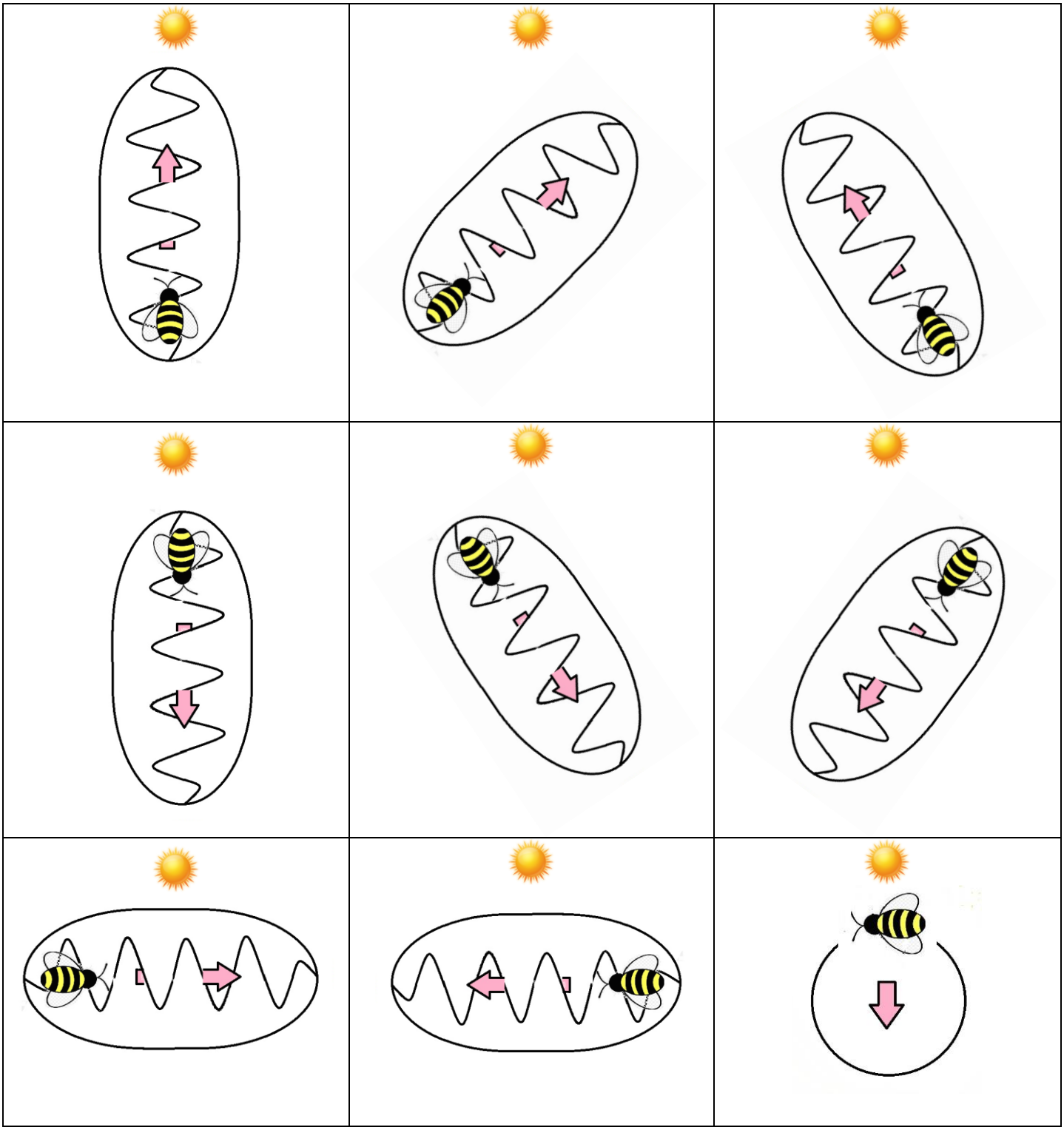

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		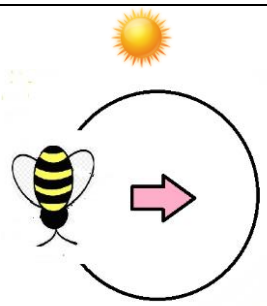
		

Report

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