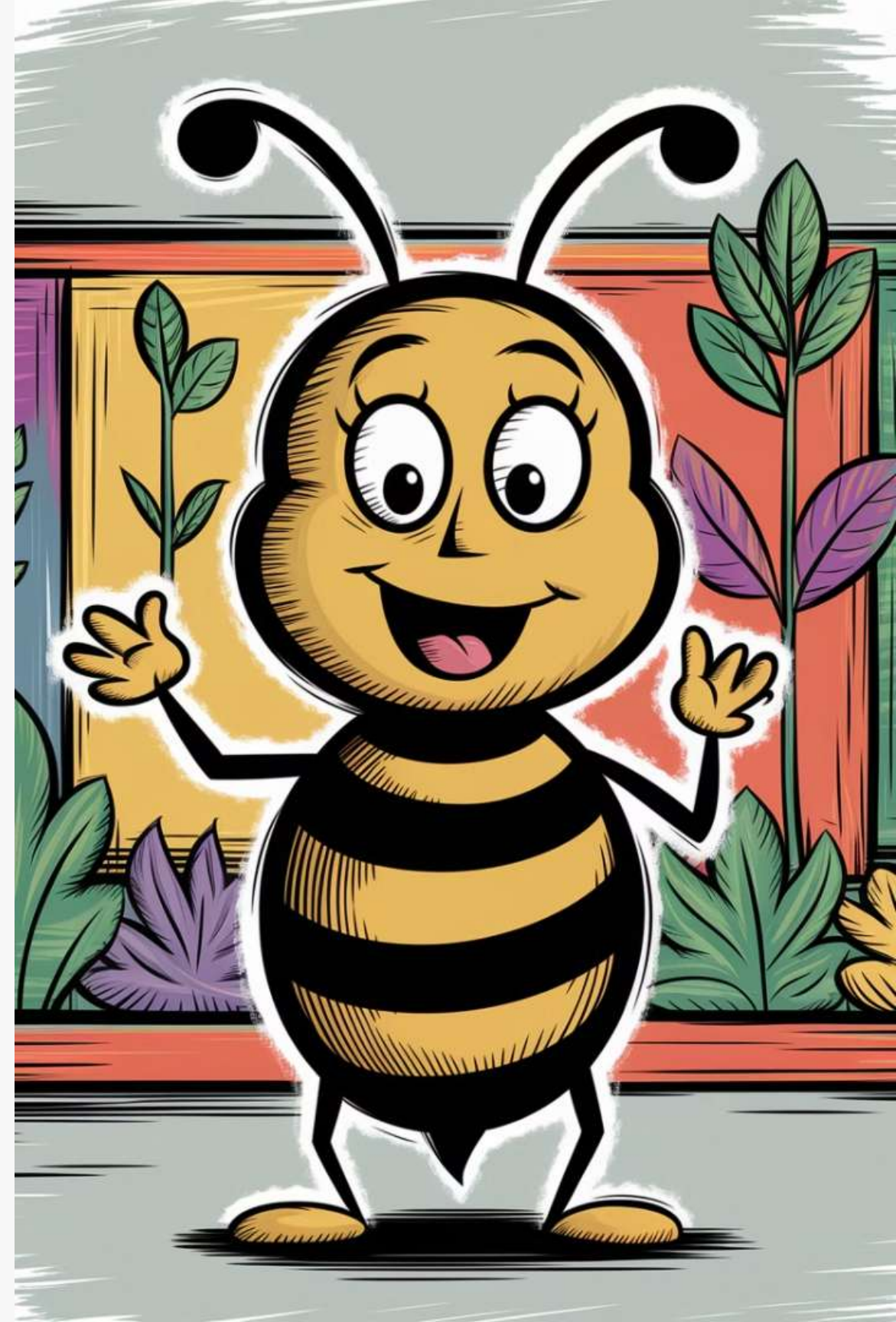







Do Plants Need Light to Grow?

Get ready to join Professor Bee on an exciting plant adventure



Success Criteria

-  I can explain why plants need light to grow.
-  I can make a sensible prediction about how light affects growth.
-  I can follow instructions to set up a fair experiment.
-  I can observe and record results in a table or by drawing.
-  I can describe, in simple terms, how plants make their own food using light (photosynthesis).



Meet Professor Bee

Hello Everyone!

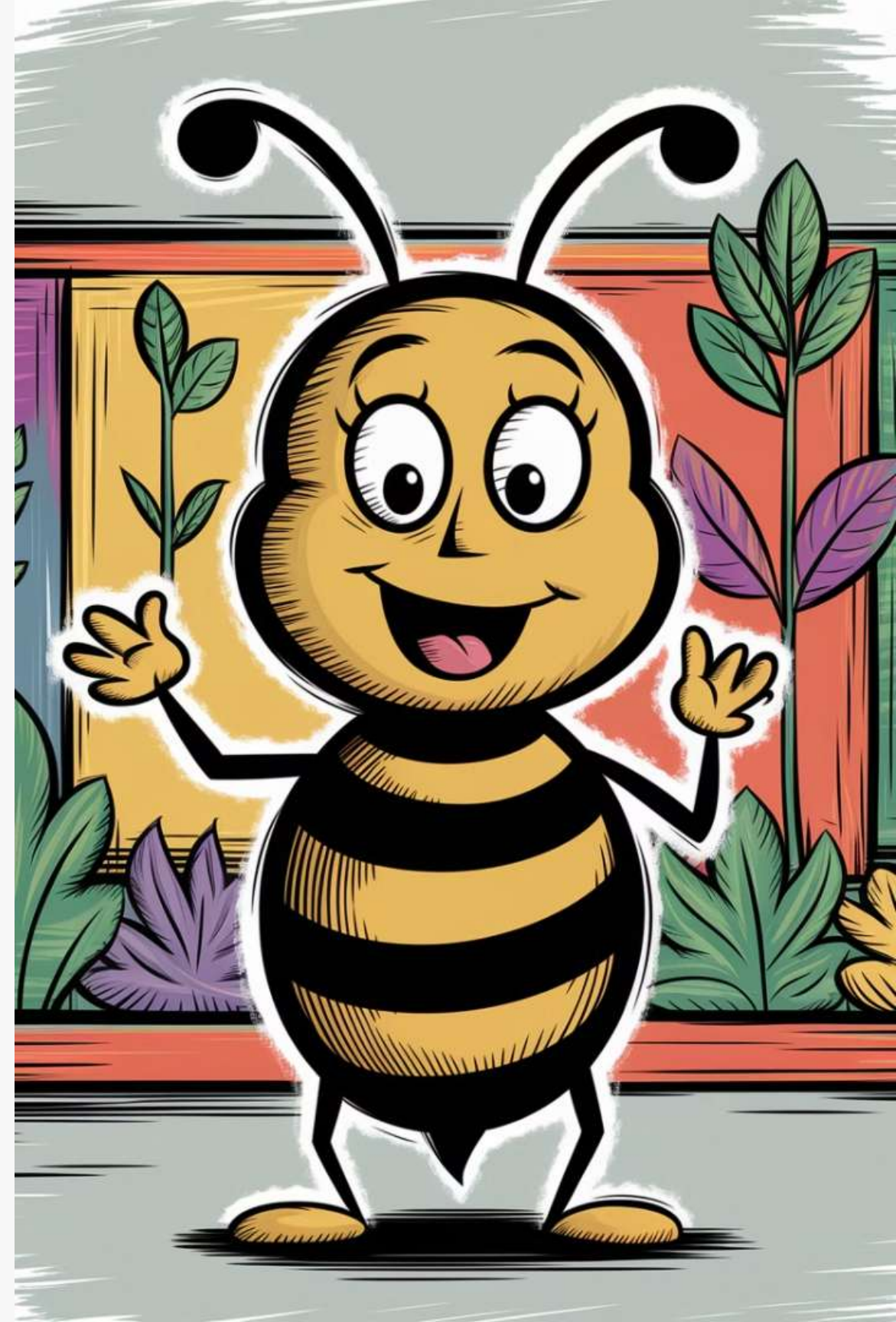
I'm Professor Bee, your local friendly plant expert.

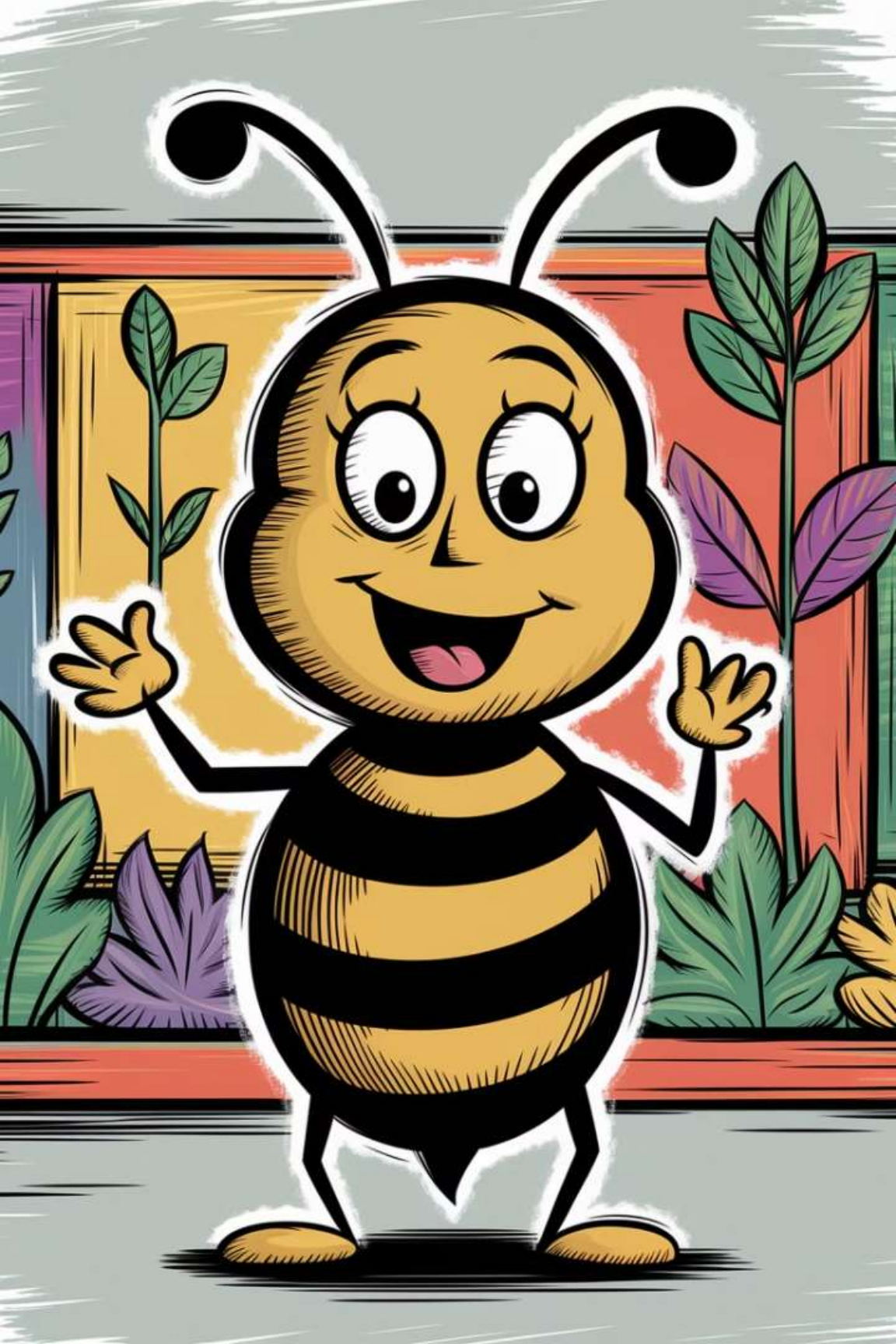
I'm excited to share what I know about plants with you

Learn learn some amazing plant facts together

Today, I want to learn more about how plants grow.

Come along!





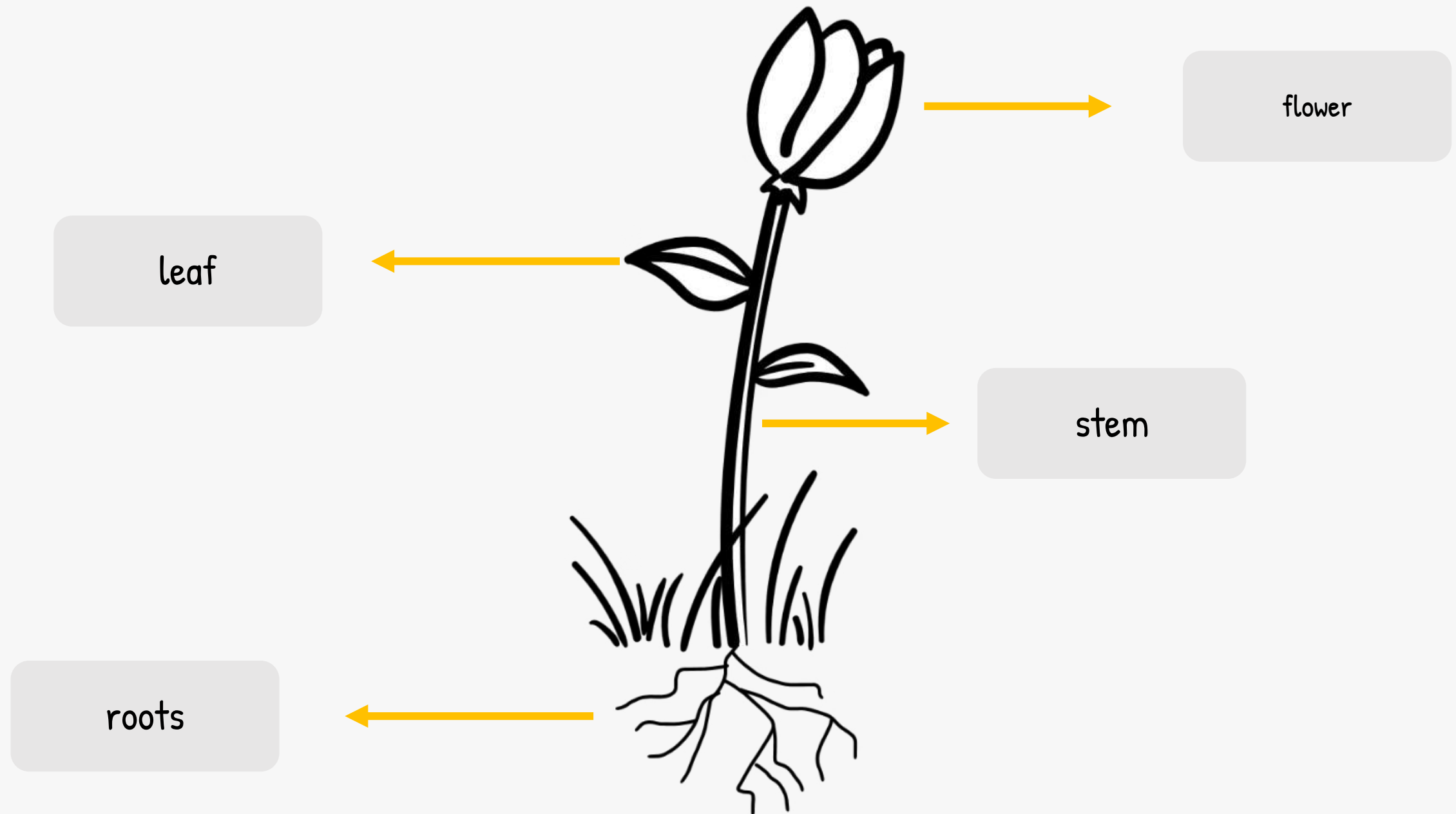
First, can you remember the different parts of a plant?

Let's think about the main parts of a plant we've learned about.

In the next slide, we'll label these parts together!

Can you remember what each plant part does?

We'll need this knowledge for later on



Great Job!



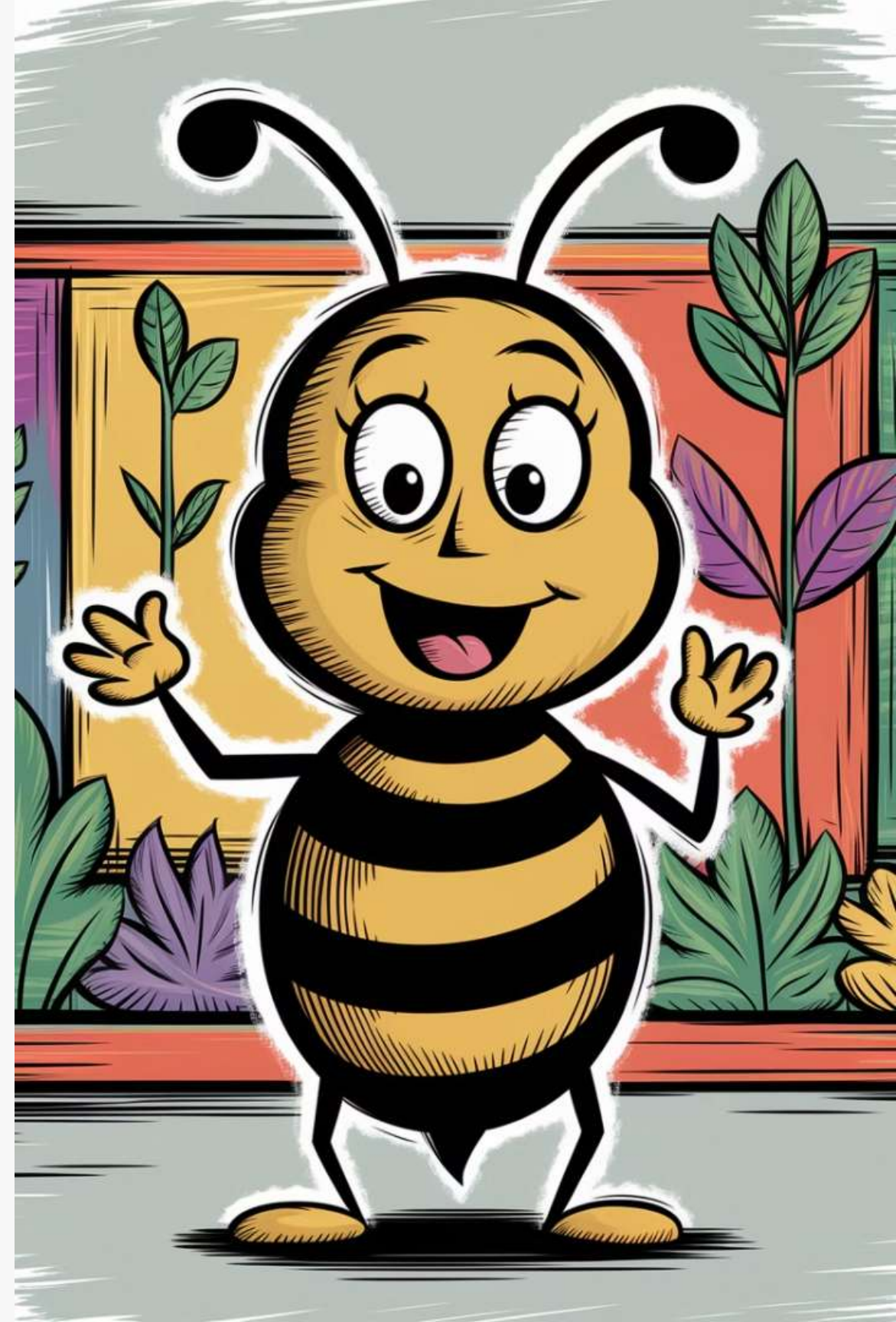
Congratulations!

You named all plant parts



Next Challenge

What is the function of each part?



Can you remember what each part does?



Roots



Stem



Leaves



Flower

Amazing!

Do you remember four things plants
need to grow?

1

2

3

4

Make a list before we move on to the next slide



What Do Plants Need to Grow?



Fantastic!

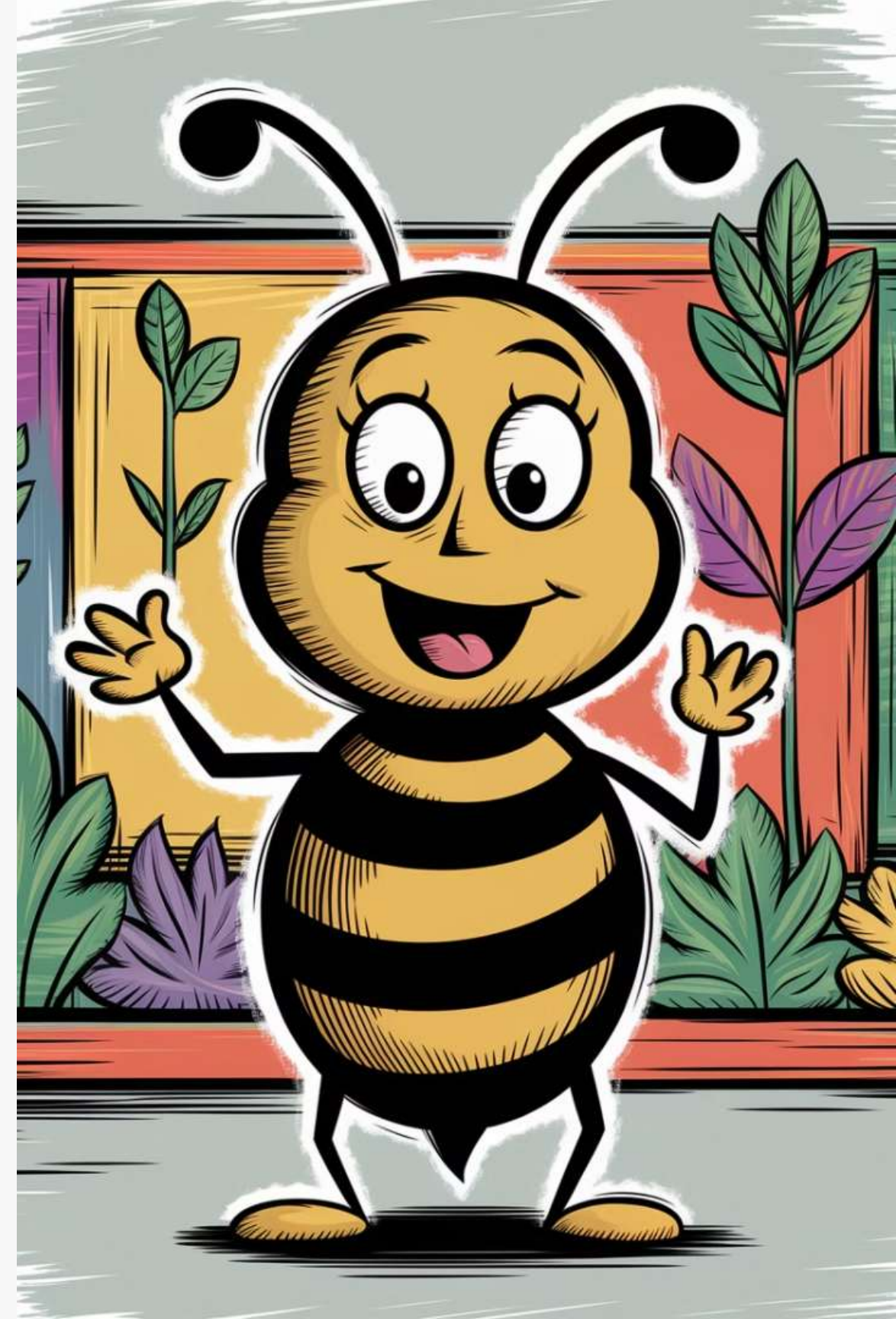
Let's think more about light.

Plants use light to make food.

Do you think plants can grow in the dark?

I want to try and find out.

Come along

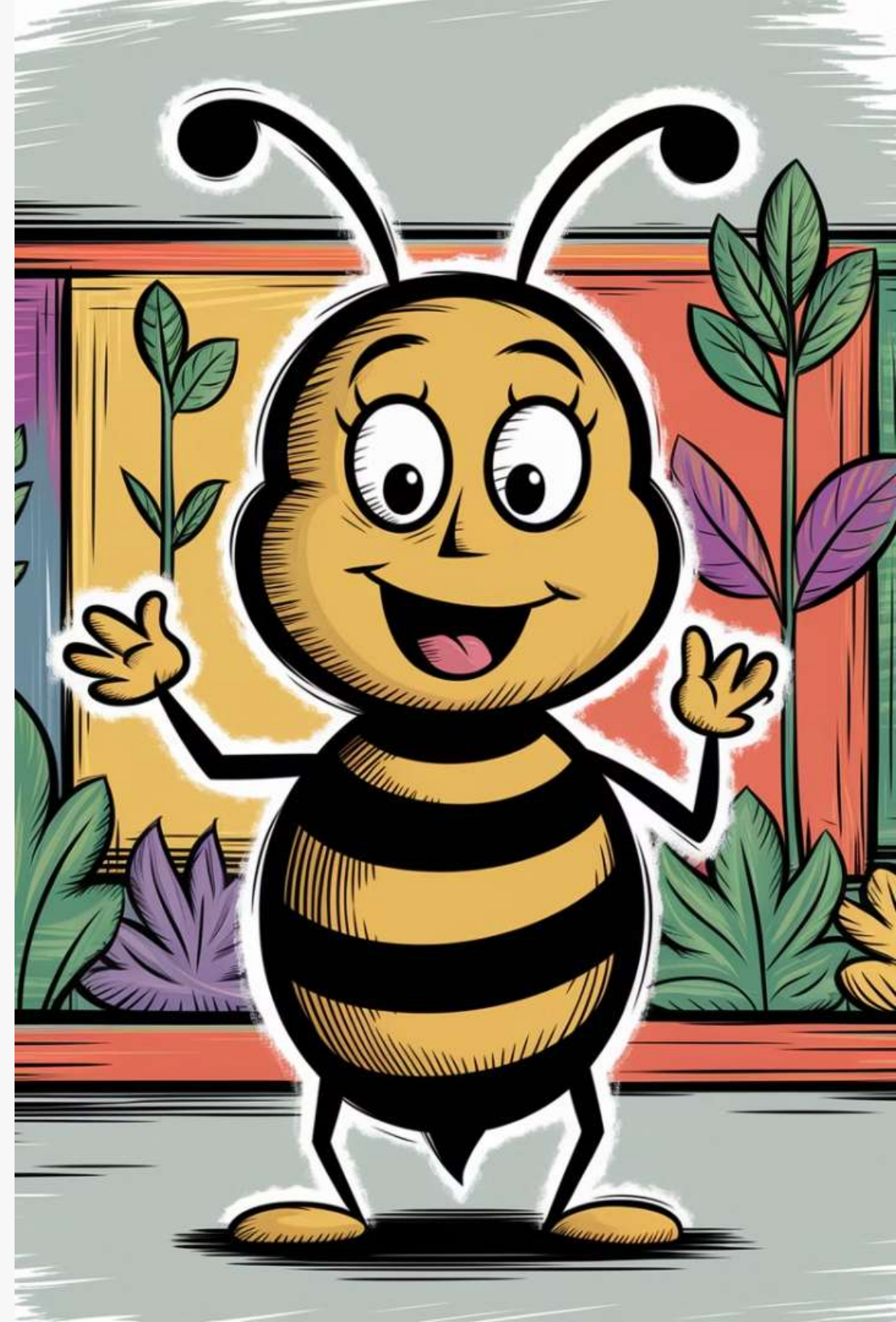


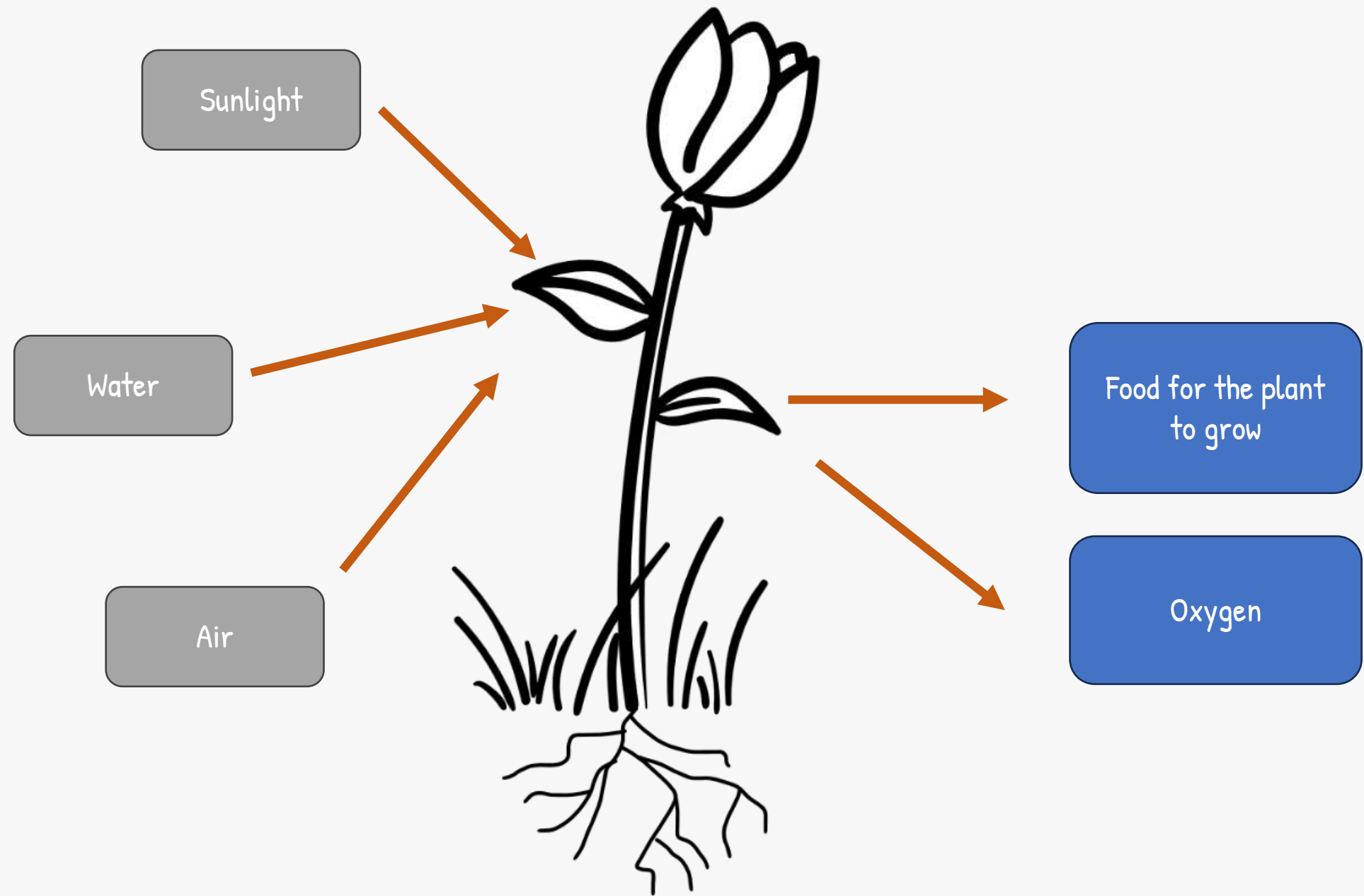
Photosynthesis

Plants make food from light by a process called photosynthesis

They use sunlight, water, and carbon dioxide to make their food.

The leaves are where photosynthesis happens







Sentences

Complete these sentences:

Plants need _____, _____, and _____ to make their own food.

The _____ take in water from the soil.

The _____ help the plant catch sunlight.

When plants make food, they also make _____

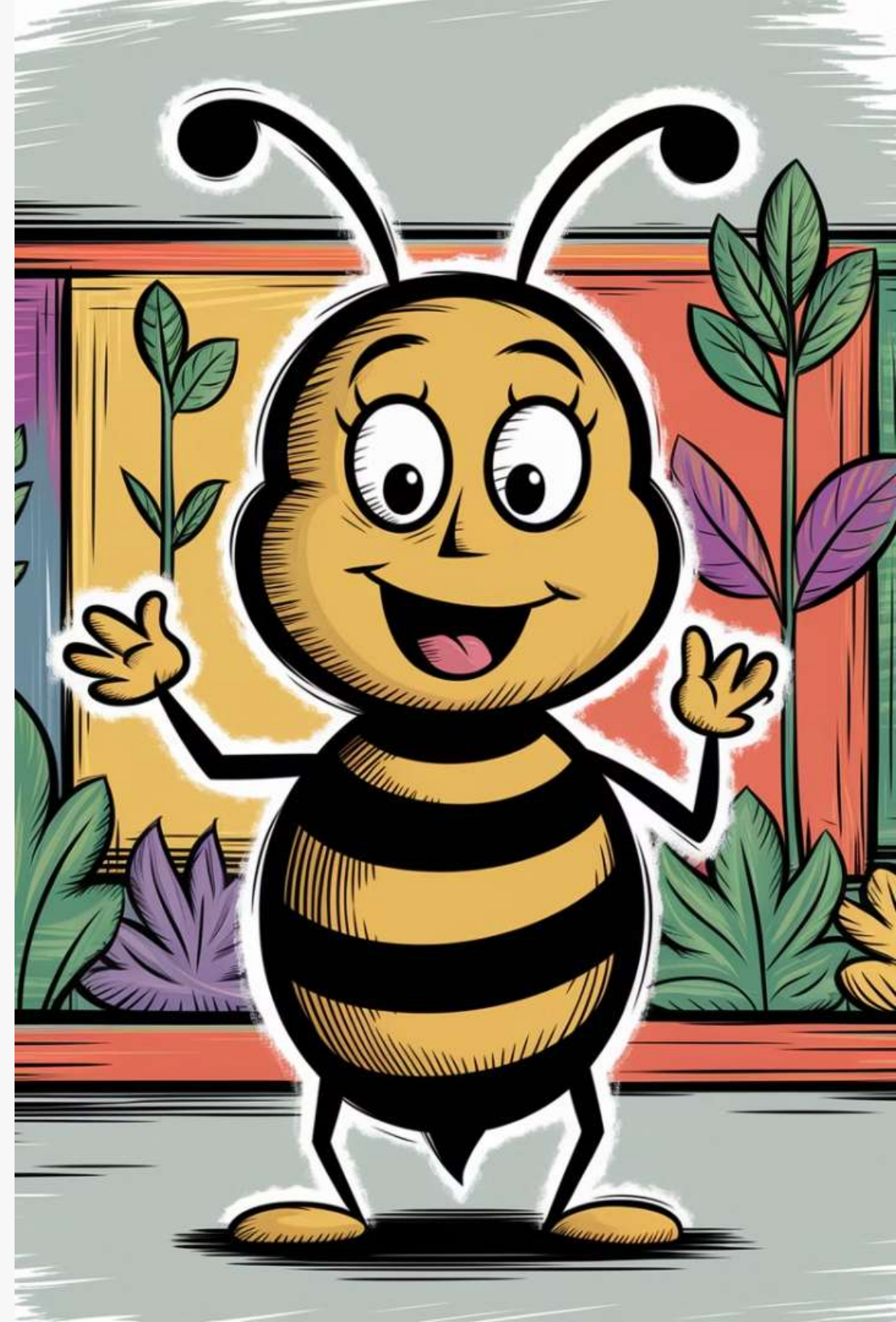
Word bank: sunlight leaves oxygen roots food water air

How about seeds?

How do you think seeds are able to germinate where there is no light?

It's very dark in the soil.

How do you think that they grow?



Seeds in the Dark

1

Seeds start inside in soil
Where it's very dark

2

Seeds have some stored food
Like a packed lunch inside

3

This food helps them grow roots and a shoot
Until the leaves find the sunlight

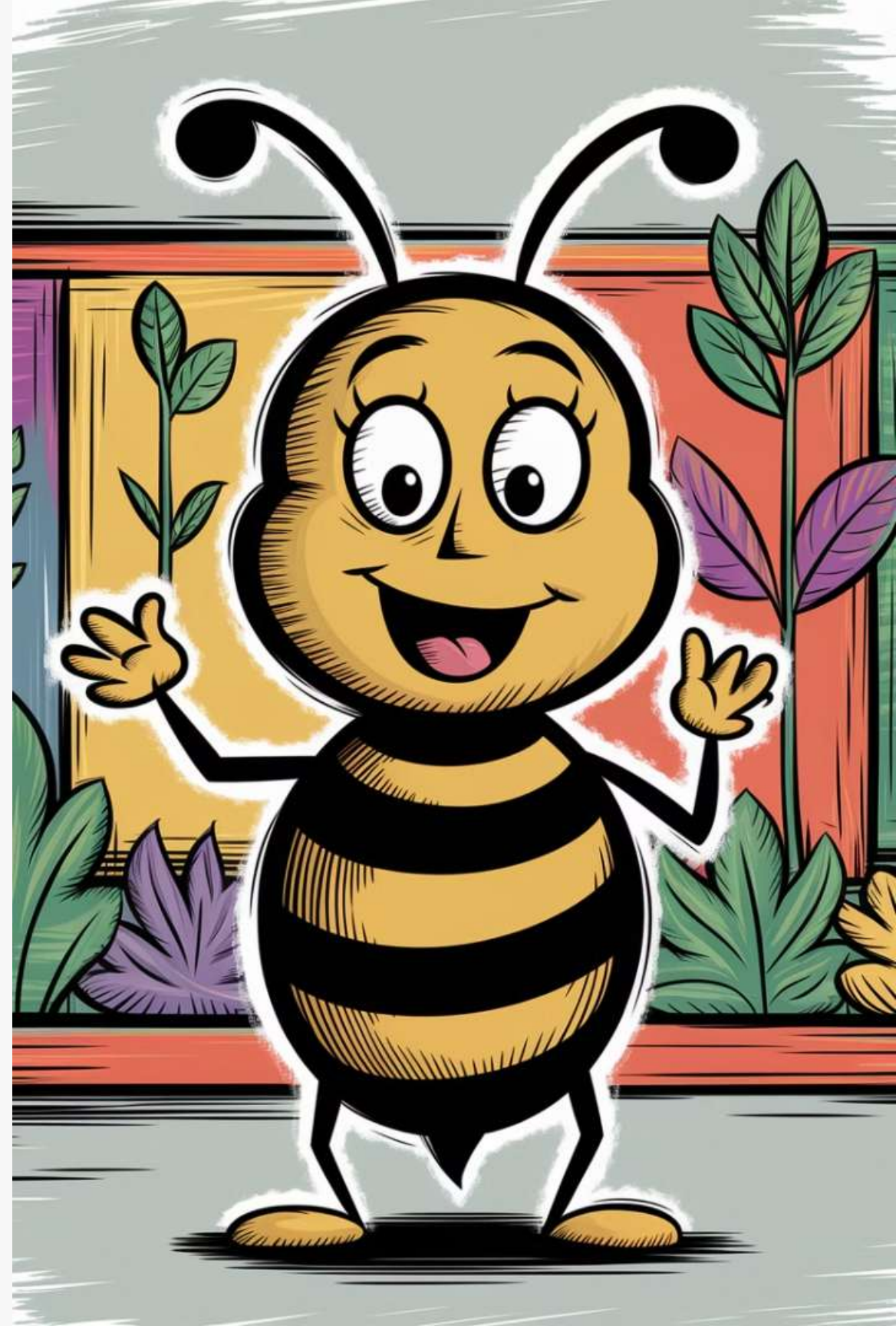
4

Then photosynthesis begins
And the plant is able to make its own food



It's time to plan our investigation

Let's plan an experiment to see if we can figure out if plants can really grow in the dark or not.



Planning Our Experiment



Equipment

What items will we need?



Instructions

How will we carry it out



Variables

What will we need to keep the same to make sure it's a fair test?

Now let's try and predict what we think will happen.

Write a short paragraph on what you think will happen and why

"I think the seed in the _____ will..."

Think about:

- Height differences
- Colour changes
- Leaf size
- Which place do you think will grow the plant best?
- Will all the plants be able to grow, or only one?

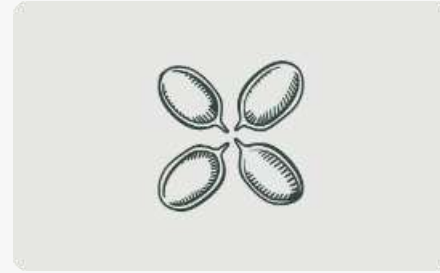


Let's Get Planting!



Step 1

Line glass jar with folded paper towel



Step 2

Add seeds between jar wall and paper towel



Step 3

Add some water to each jar on the paper towel



Step 4

Label each jar



Step 5

Place jars in different locations (e.g. sunny window, dark cupboard, shaded shelf)



Step 6

Make a note of where each jar is and the date and your current observations.

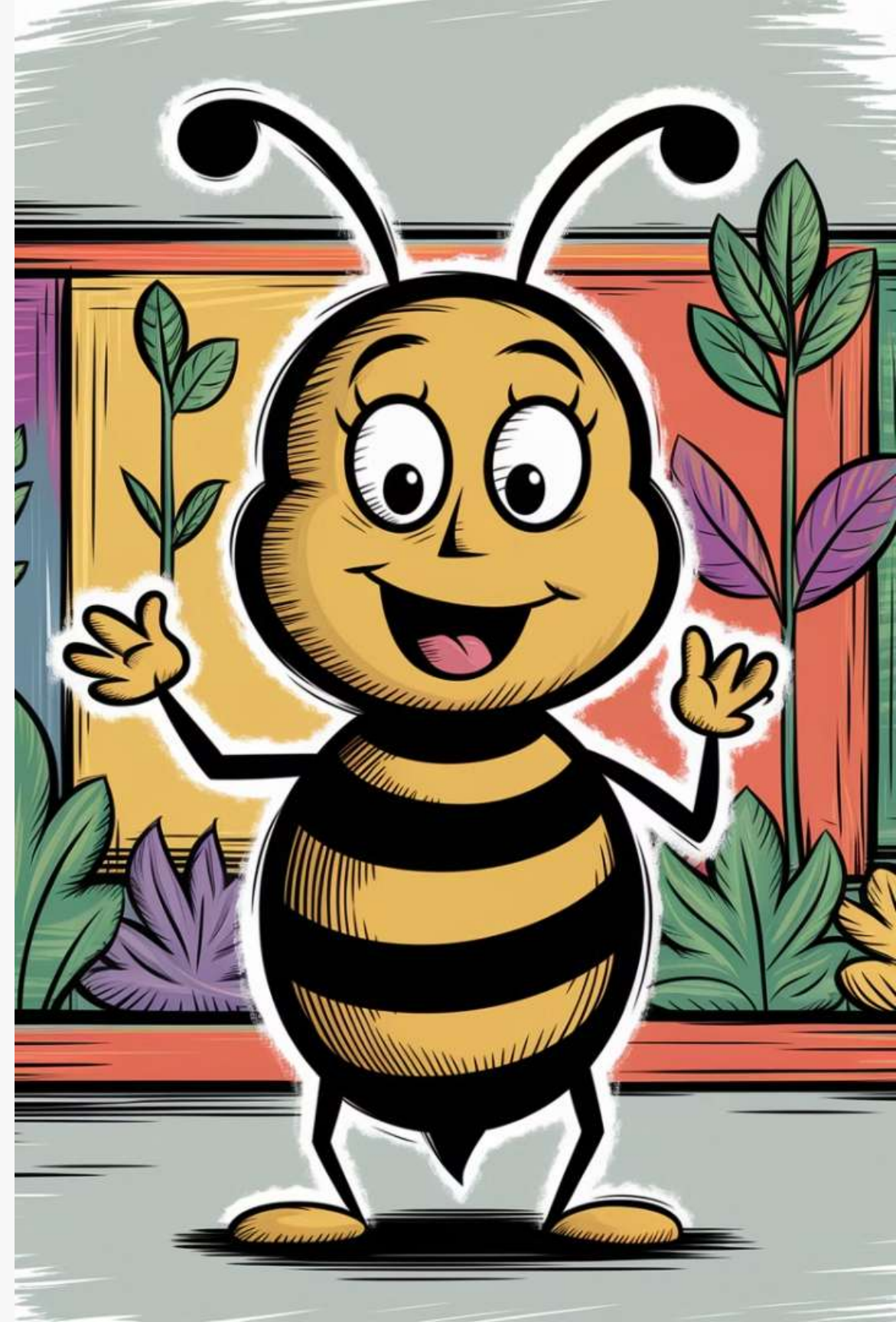
Over the next few days we will

Measure the heights



Draw what we can see

Write our observations





Quick Quiz Time!



Test Your Knowledge

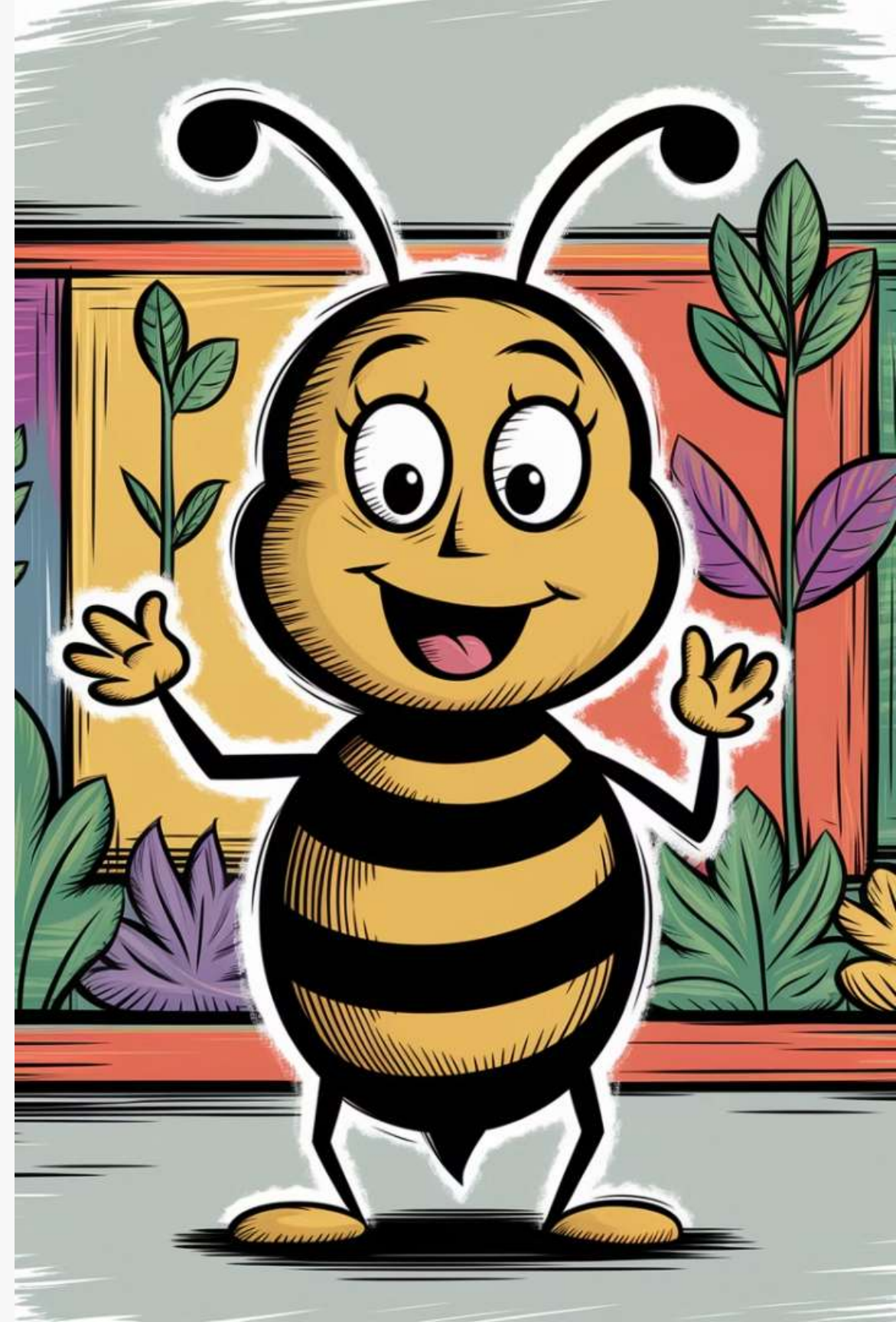
On what we've learned so far



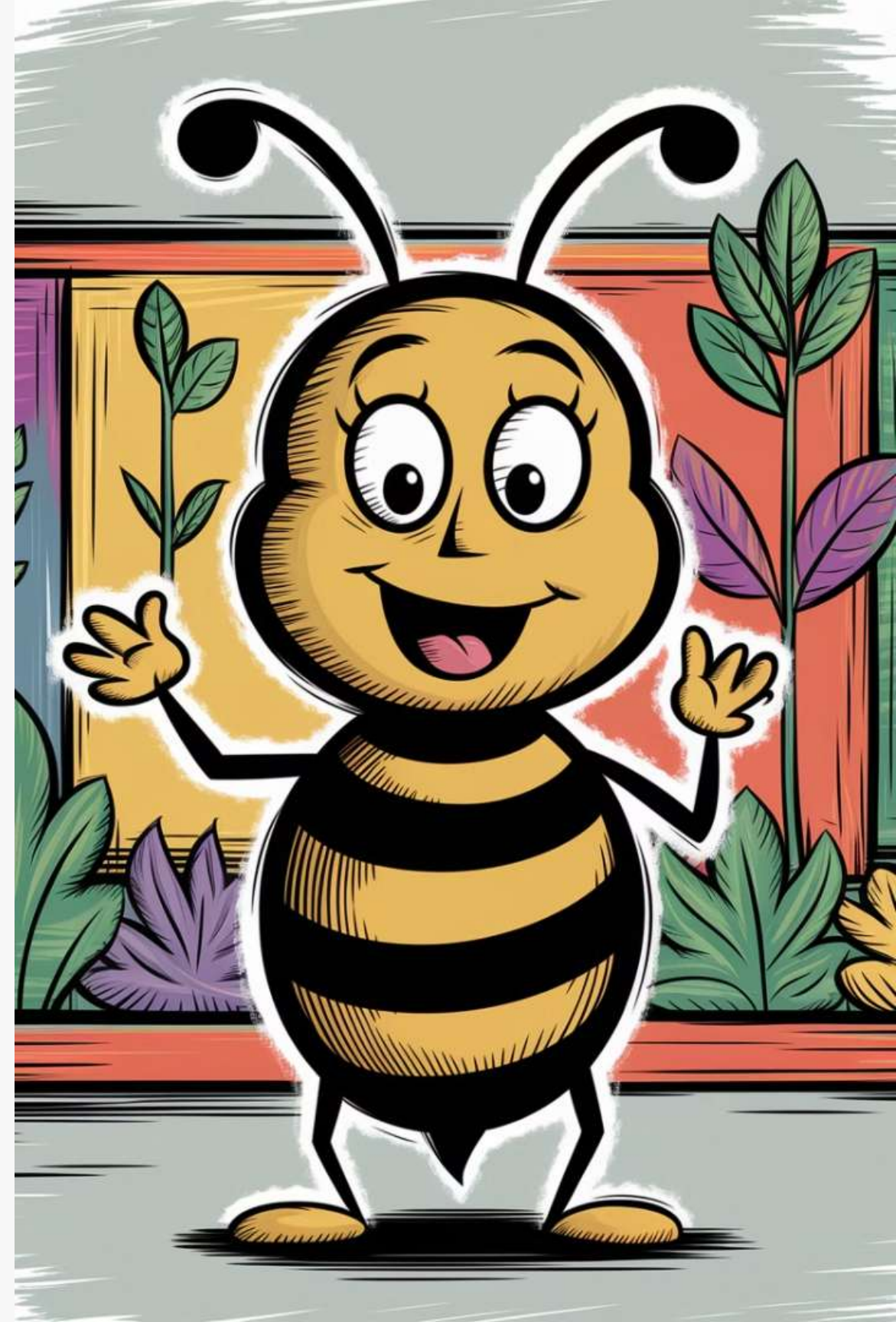
Raise Your Hand

To share your answer

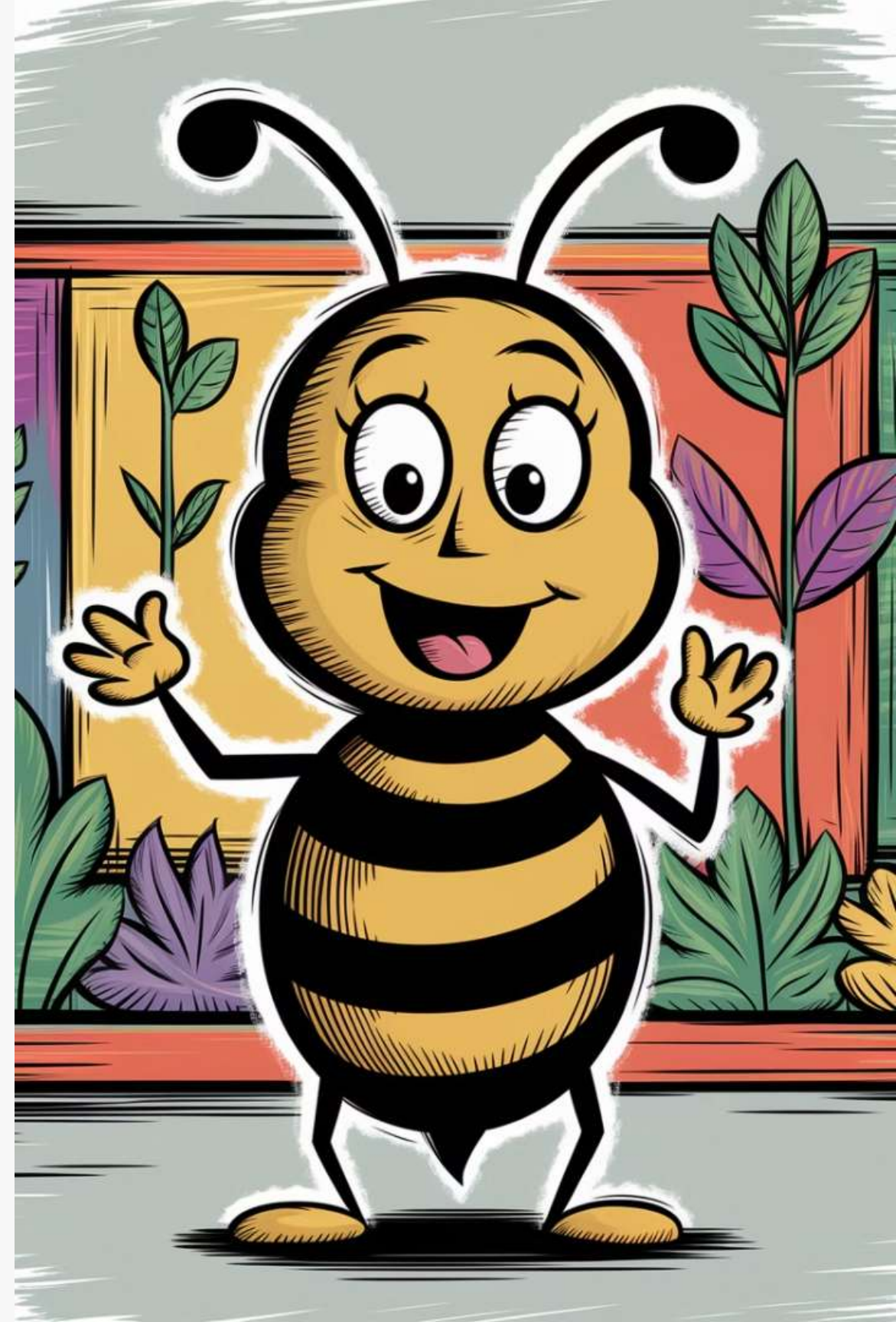
What do plants need to make their own food?



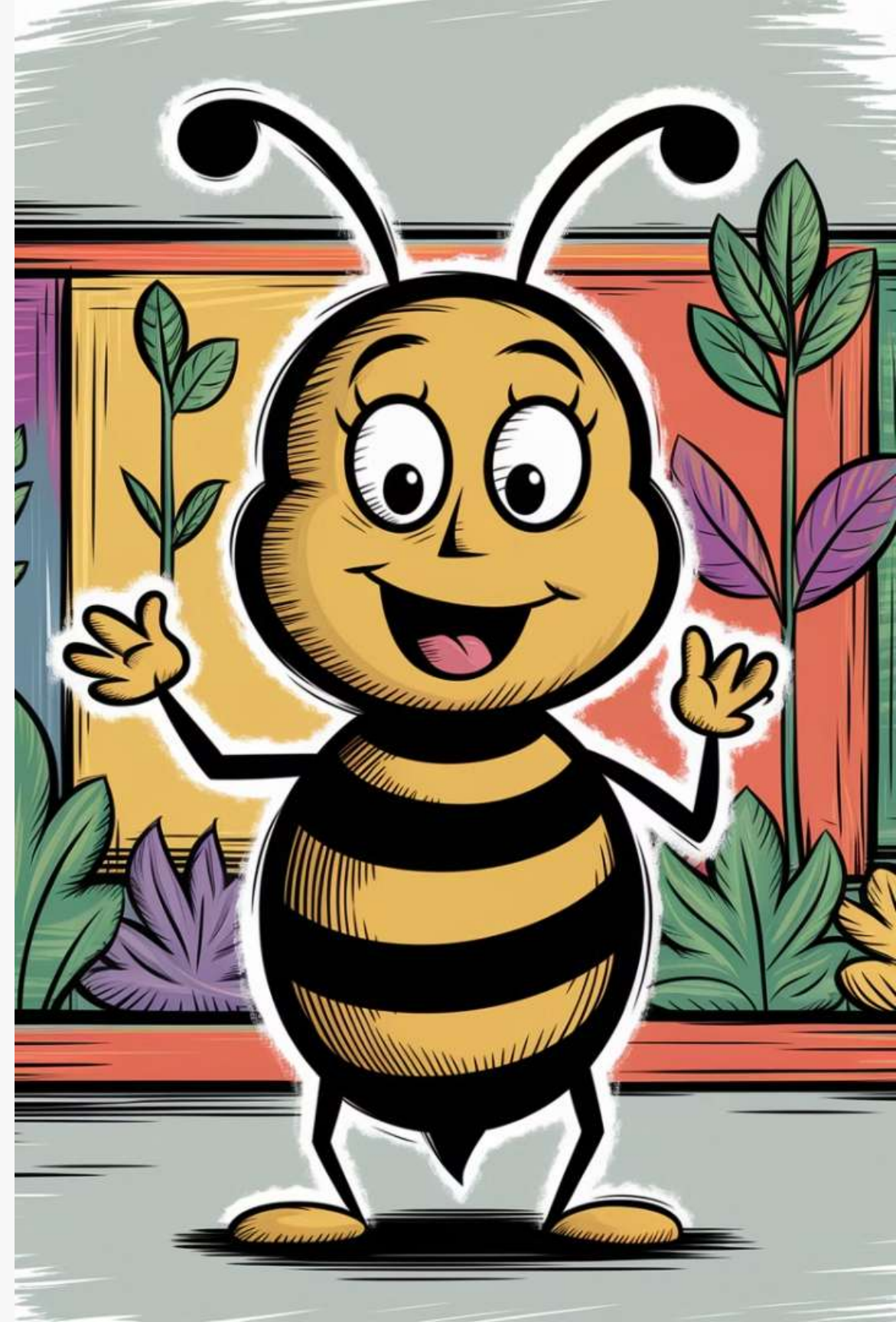
Where does photosynthesis happen
in a plant?



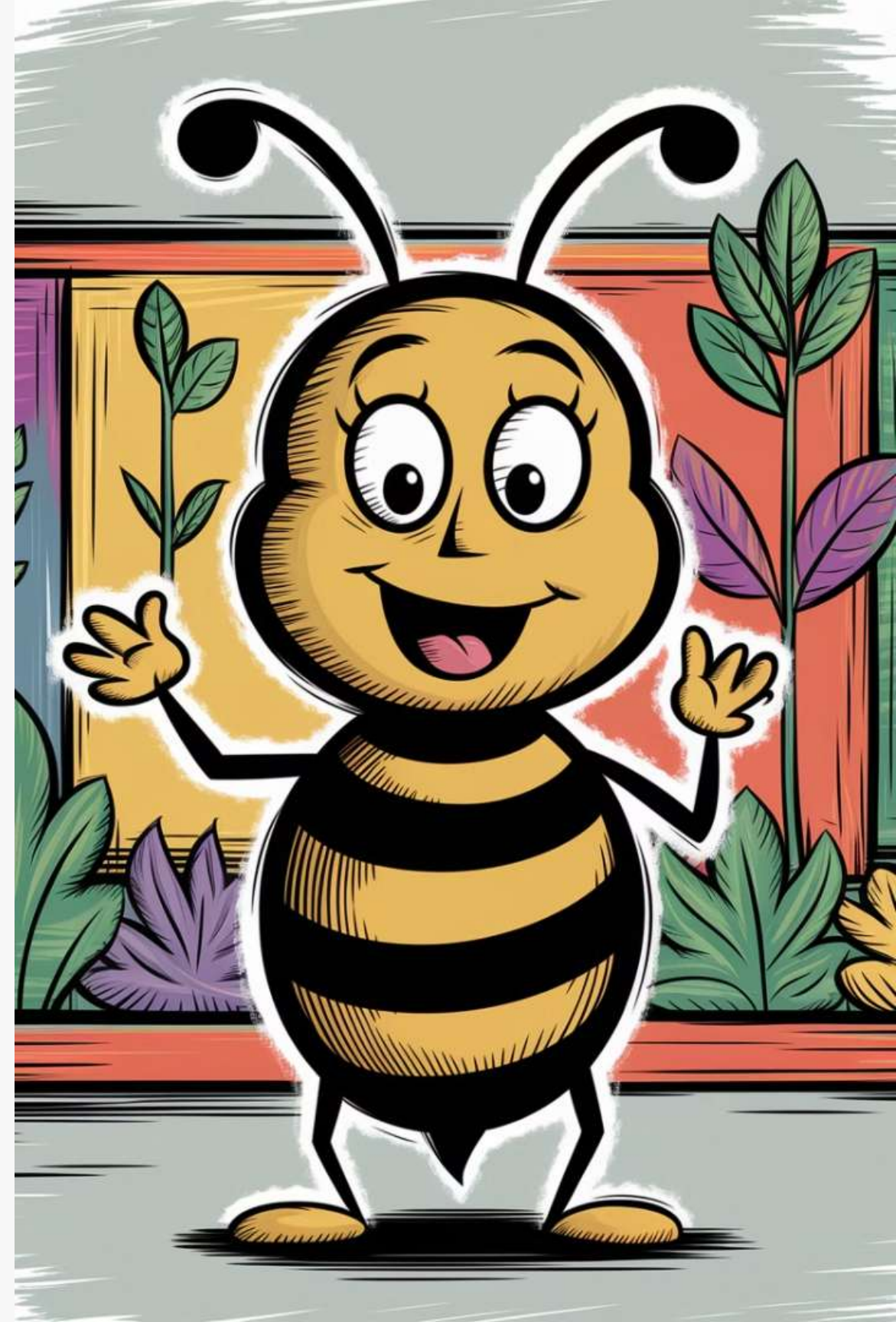
What do plants take in from the air
to help them make food?



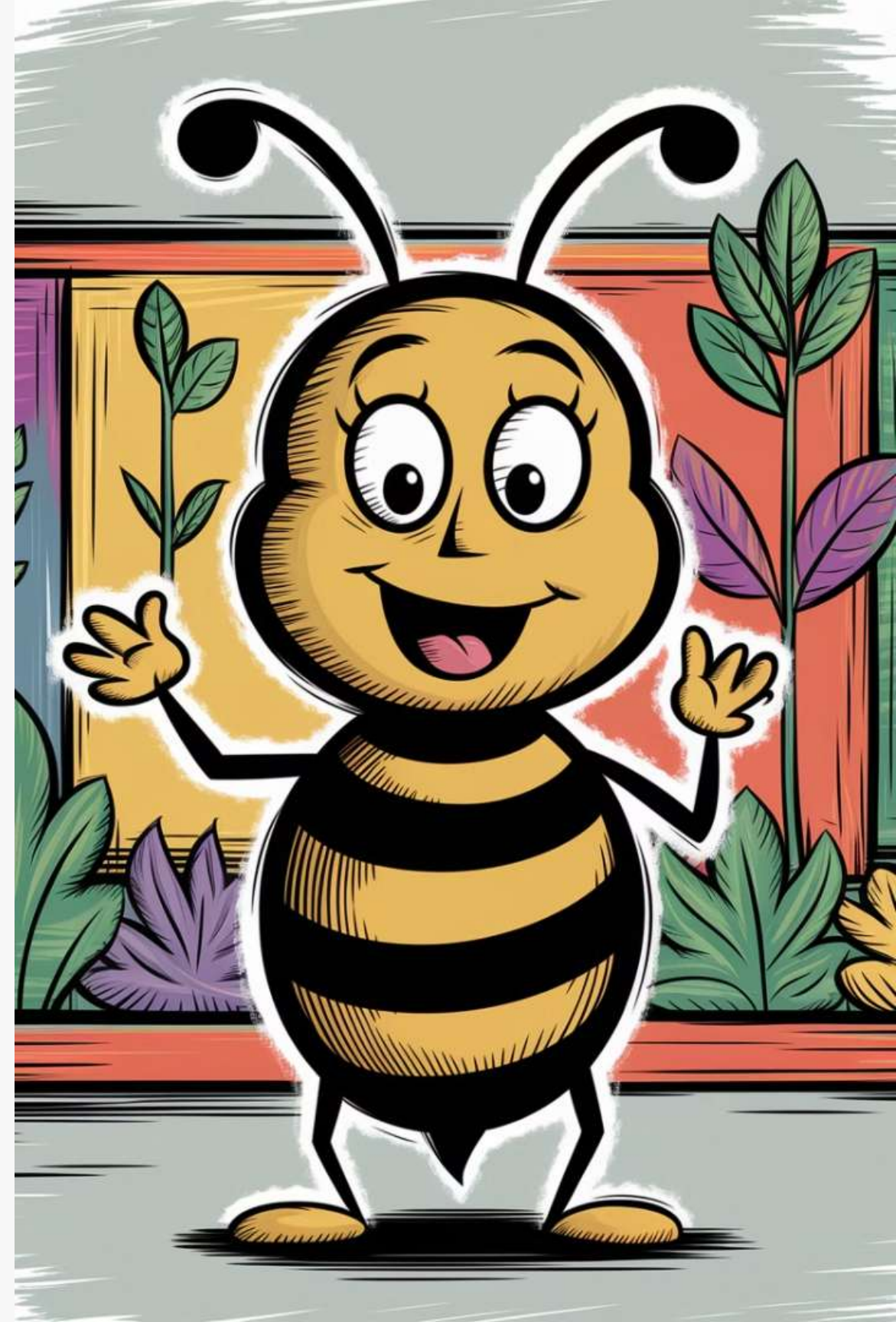
Which part of the plant takes in water?



Plants grow better without any light at all. True or False

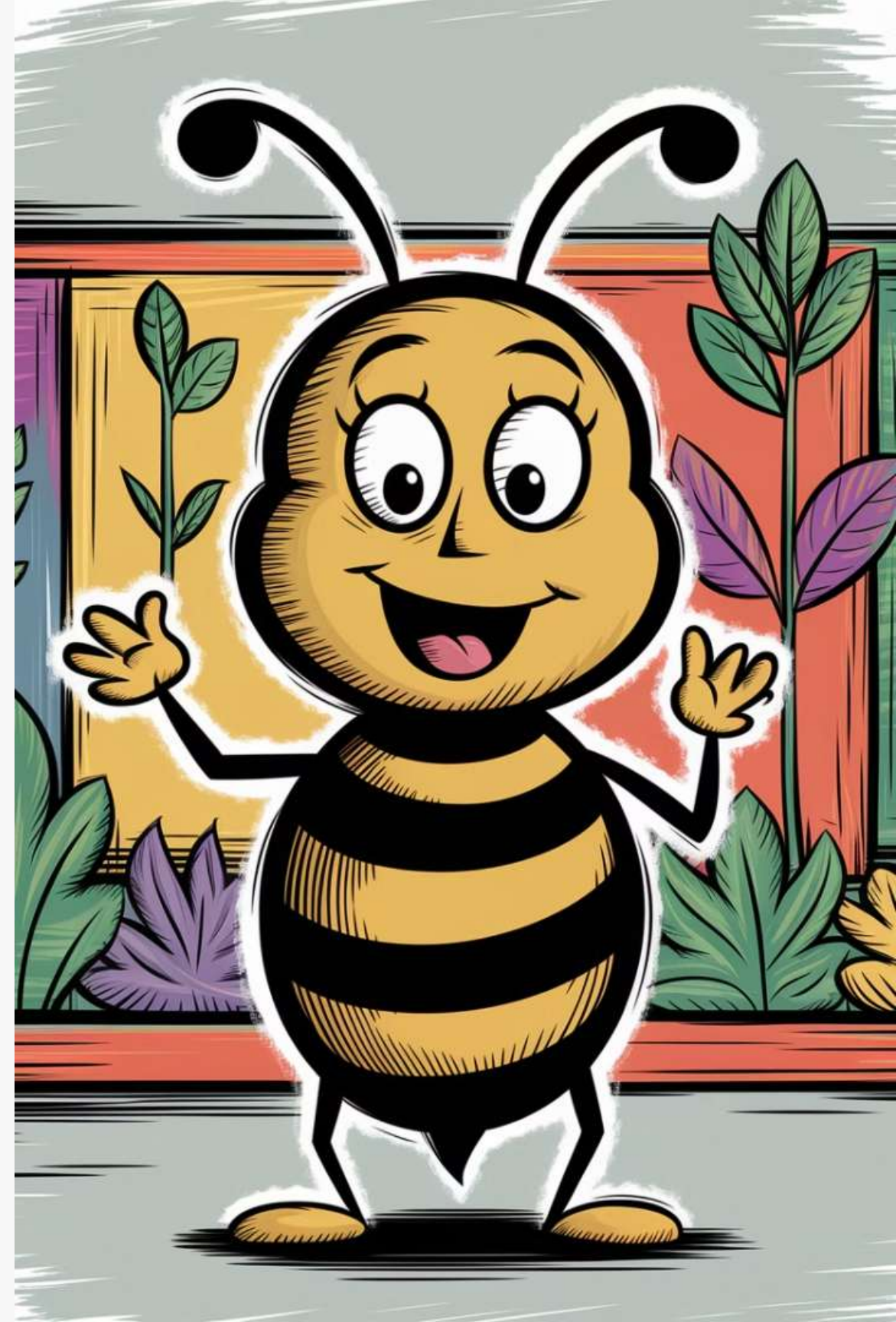


Bonus: What is the name of the green stuff in leaves that helps trap sunlight?



Congratulations!

We have completed the quiz. Good job on your answers everyone.





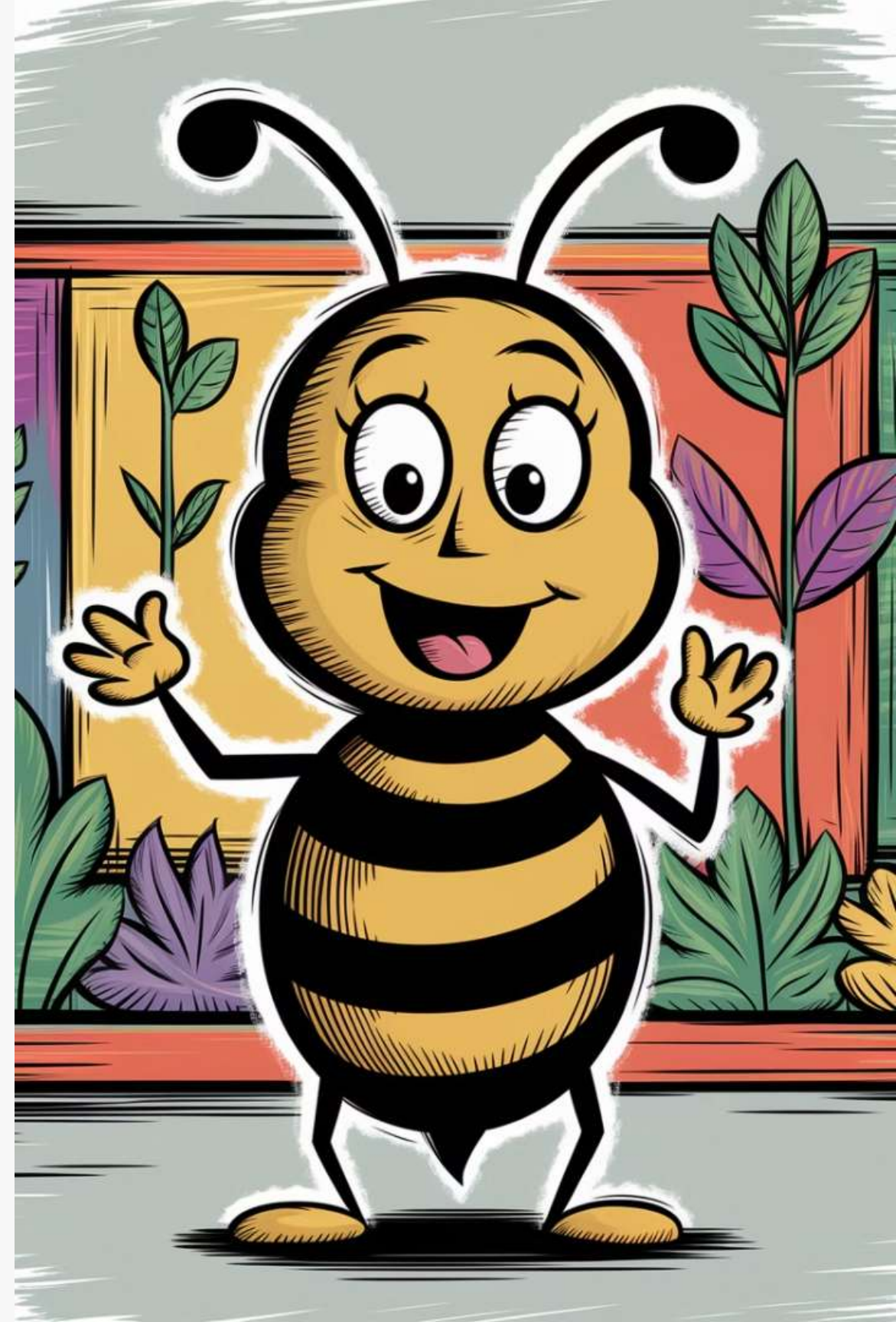
Go Further!



Do all plants need the same amount of light?

See if you can find plants in areas where there is not much light

Does anyone have any questions on what we covered today?



Success Criteria Checklist

Success Criteria	Red	Amber	Green
I can explain why plants need light to grow.			
I can make a sensible prediction about how light affects growth.			
I can follow instructions to set up a fair experiment.			
I can observe and record results in a table or by drawing.			
I can describe, in simple terms, how plants make their own food using light (photosynthesis).			



Thank you everyone for trying your
best!

It was lovely to meet you all.

See you all very soon

