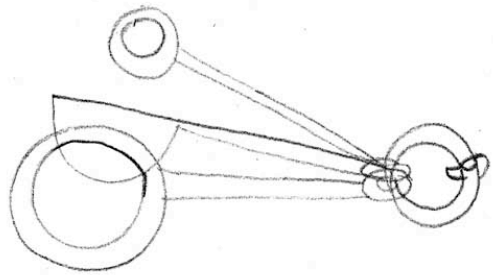


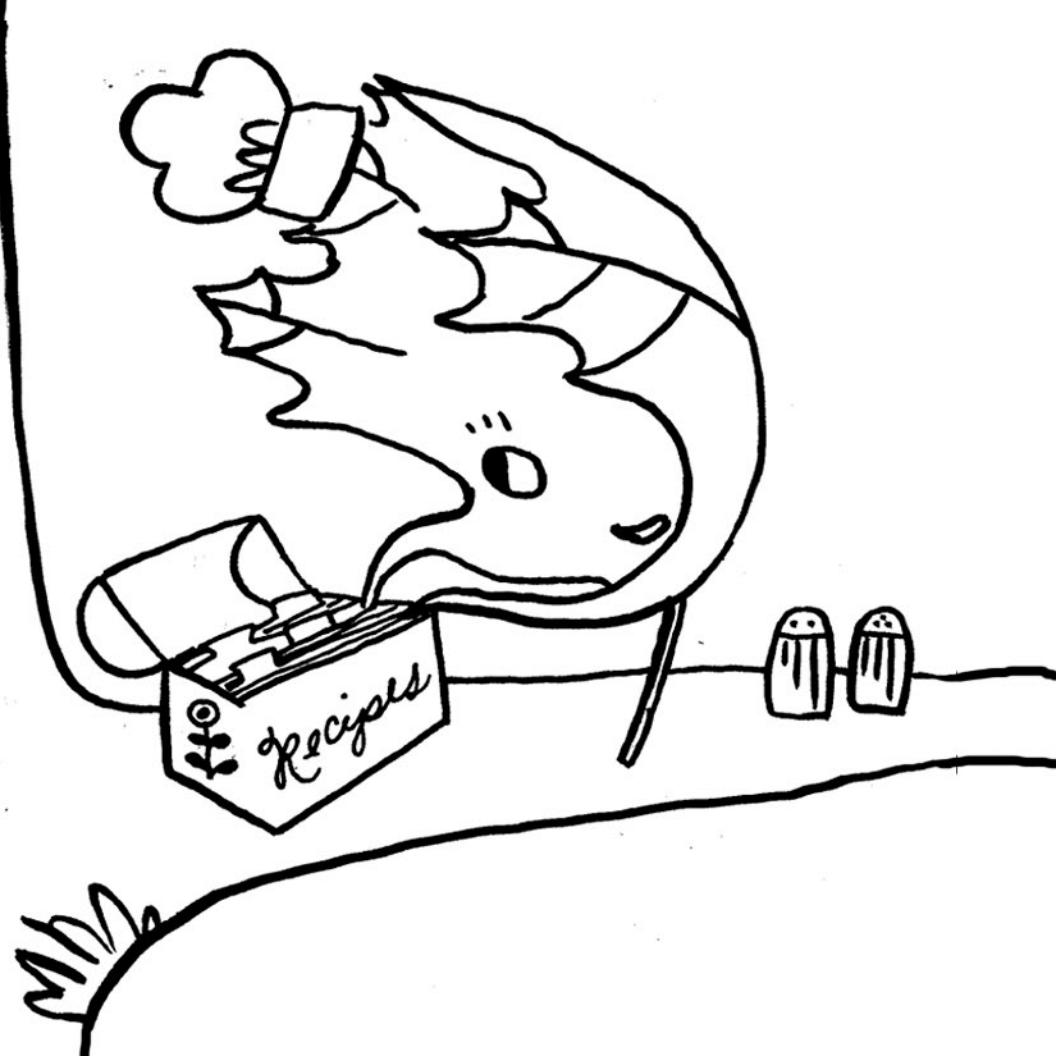
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LEAF
MAKES
LUNCH
by
Kari Percival




"I'm hungry," says Tree.
"I'll make lunch," says Leaf.
"Oh, good," says Tree.
"Then I can grow bigger."





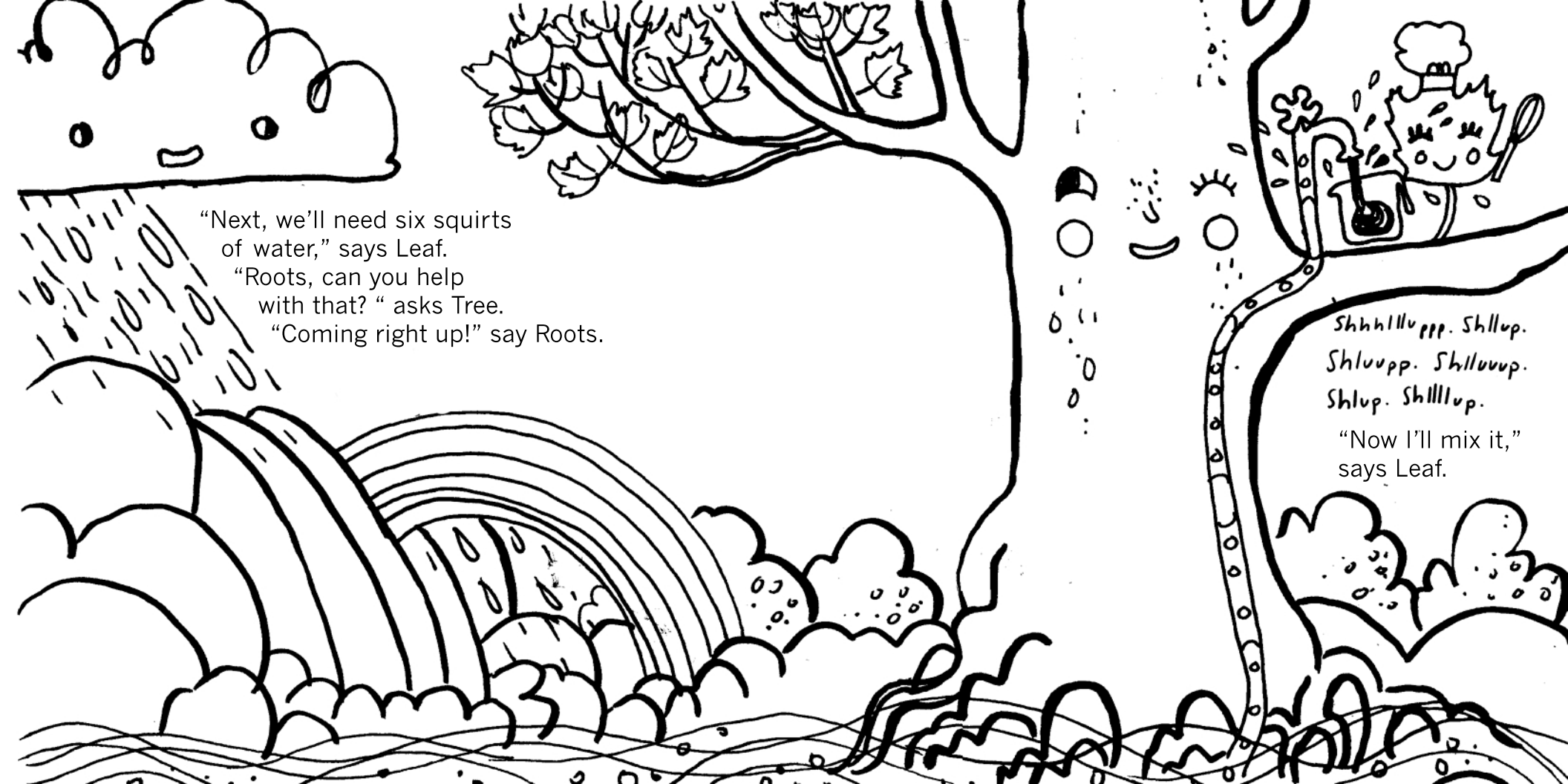
“Let’s use my special recipe.
First, we’ll need
a heaping scoop
of sunshine,” says Leaf.



“Thank you,
Sun!”
says Tree.

“You’re
welcome!”
says Sun.

- fwoop,
fwoop,
fwoop



“Next, we’ll need six squirts
of water,” says Leaf.

“Roots, can you help
with that?” asks Tree.

“Coming right up!” say Roots.

Shhhlluppp. Shllup.

Shluupp. Shluuupp.

Shlup. Shllllup.

“Now I’ll mix it,”
says Leaf.

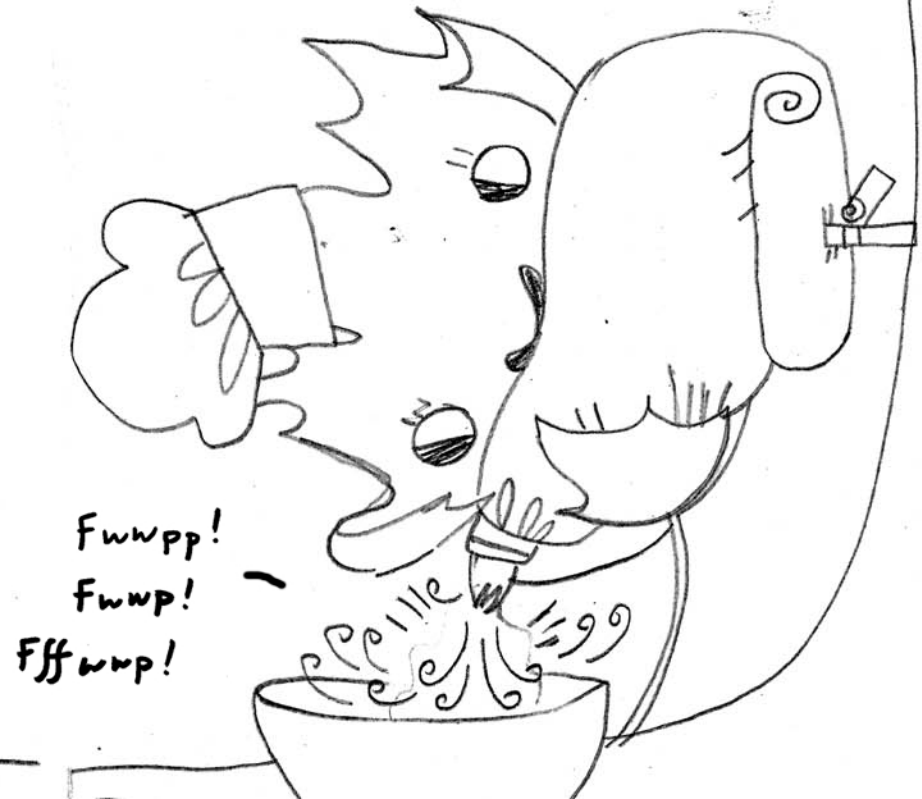


“Last, we’ll need to whisk in six puffs of breath from a bird, or a squirrel, or even you, Tree!” says Leaf.

“What?!?. Puffs of breath? Why?” asks Tree.

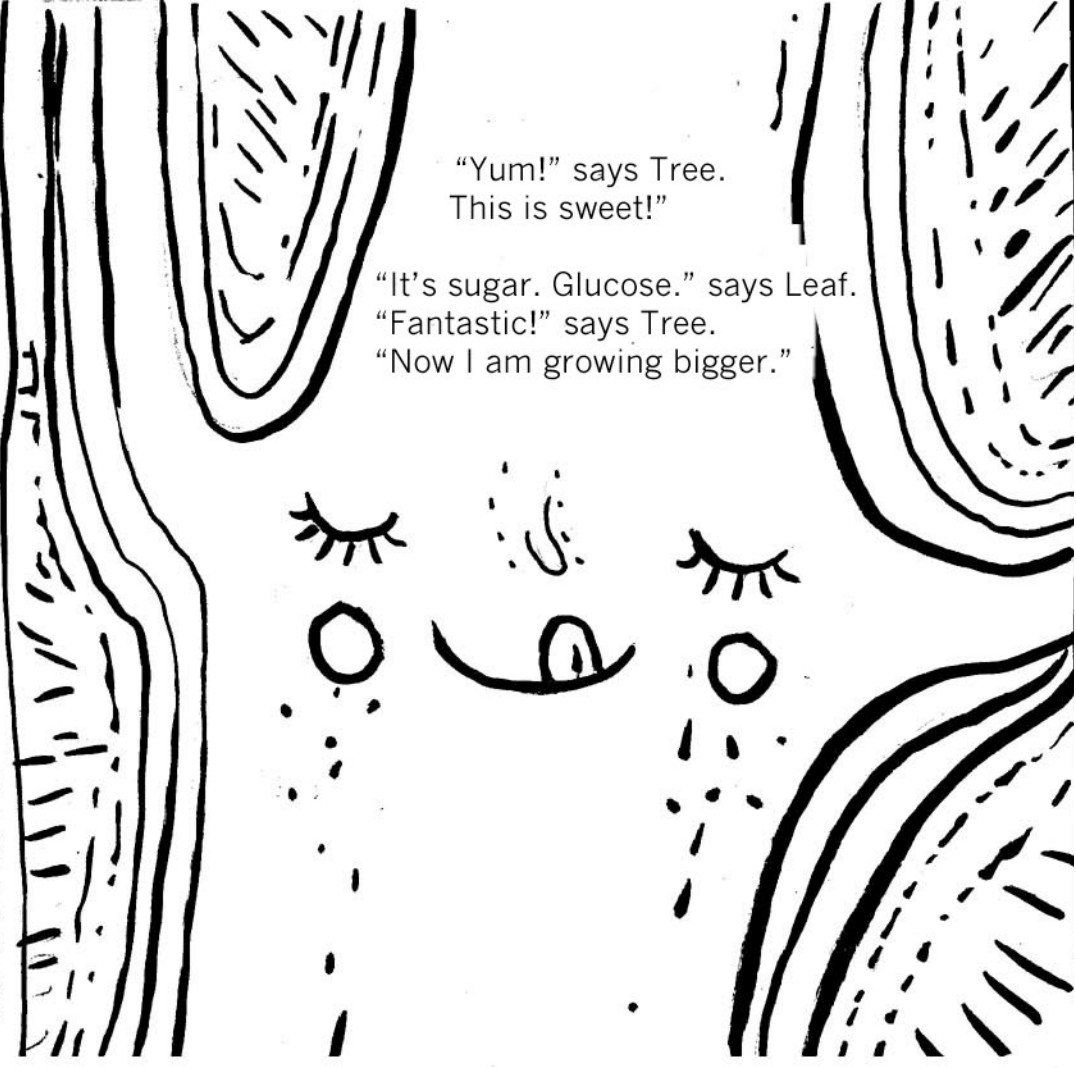
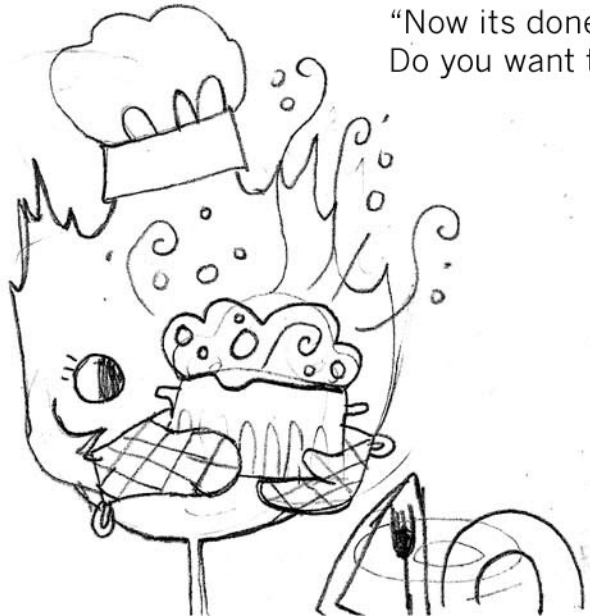
“It’s got carbon dioxide. We need carbon dioxide to make glucose,” says Leaf,

“Thank you, squirrel!” says Tree.





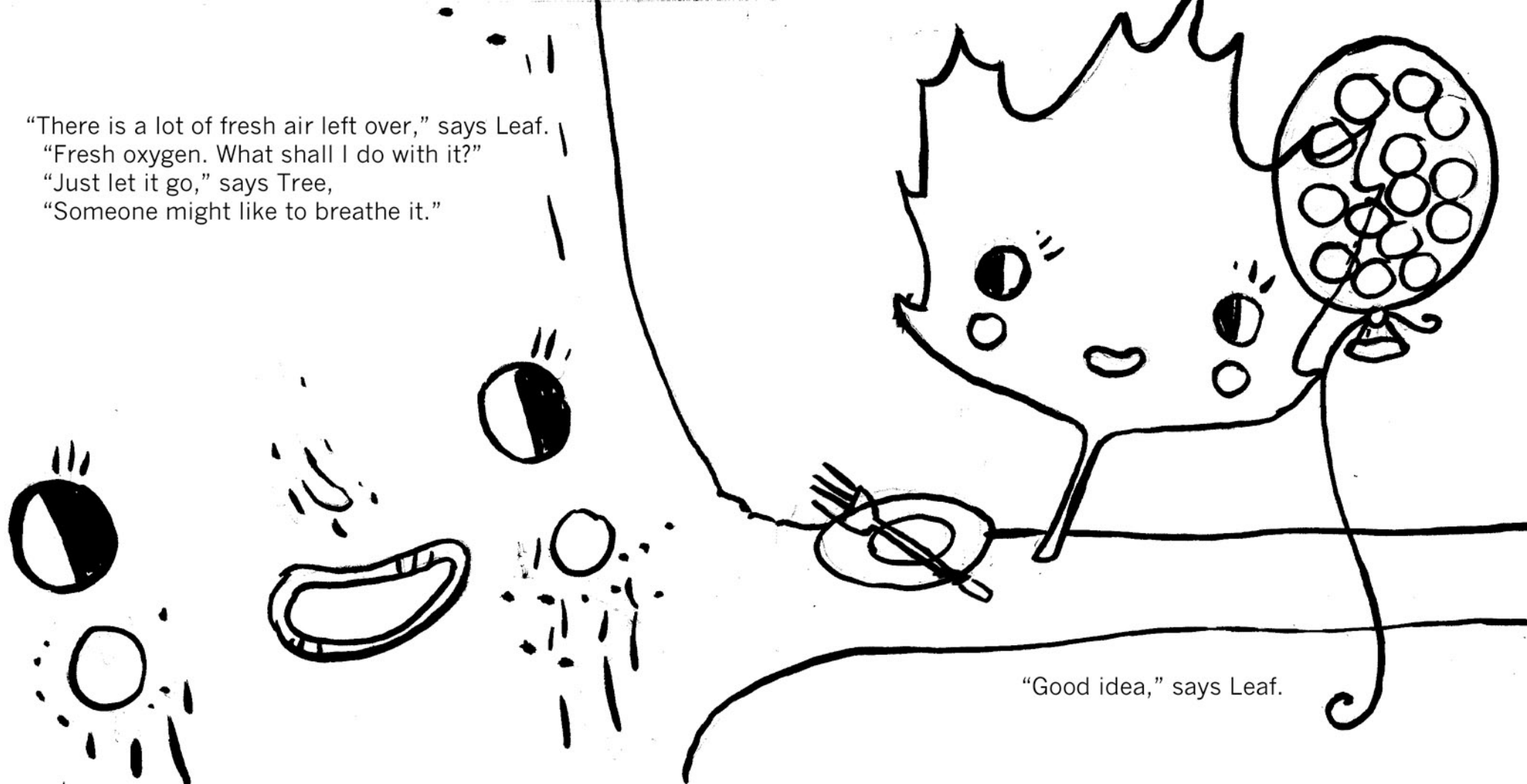
"Into the oven," says Leaf.
"Now its done!
Do you want to try some?"



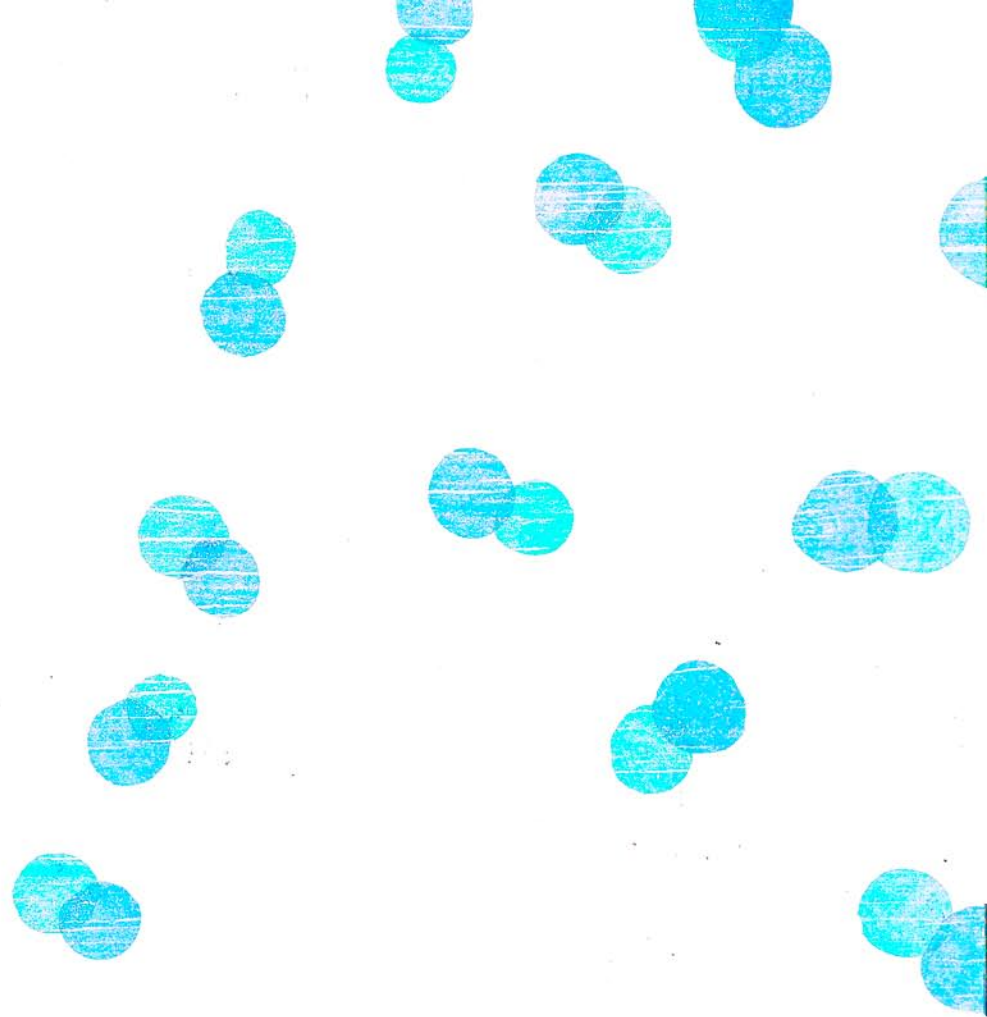
"Yum!" says Tree.
This is sweet!"

"It's sugar. Glucose." says Leaf.
"Fantastic!" says Tree.
"Now I am growing bigger."

“There is a lot of fresh air left over,” says Leaf.
“Fresh oxygen. What shall I do with it?”
“Just let it go,” says Tree,
“Someone might like to breathe it.”



“Good idea,” says Leaf.





Sniff. Ahh.



Sniff.
Ahh.

Sniff.
Ahh.

Sniff. Ahh.

Sniff. Ahh.

Sniff.
Ahh.

Sniff. Ahh.

Sniff. Ahh.

“Thank you, Leaf!” says Tree.
“Thank YOU, Tree!” says Leaf.
“Can we do this again tomorrow?” asks Tree.



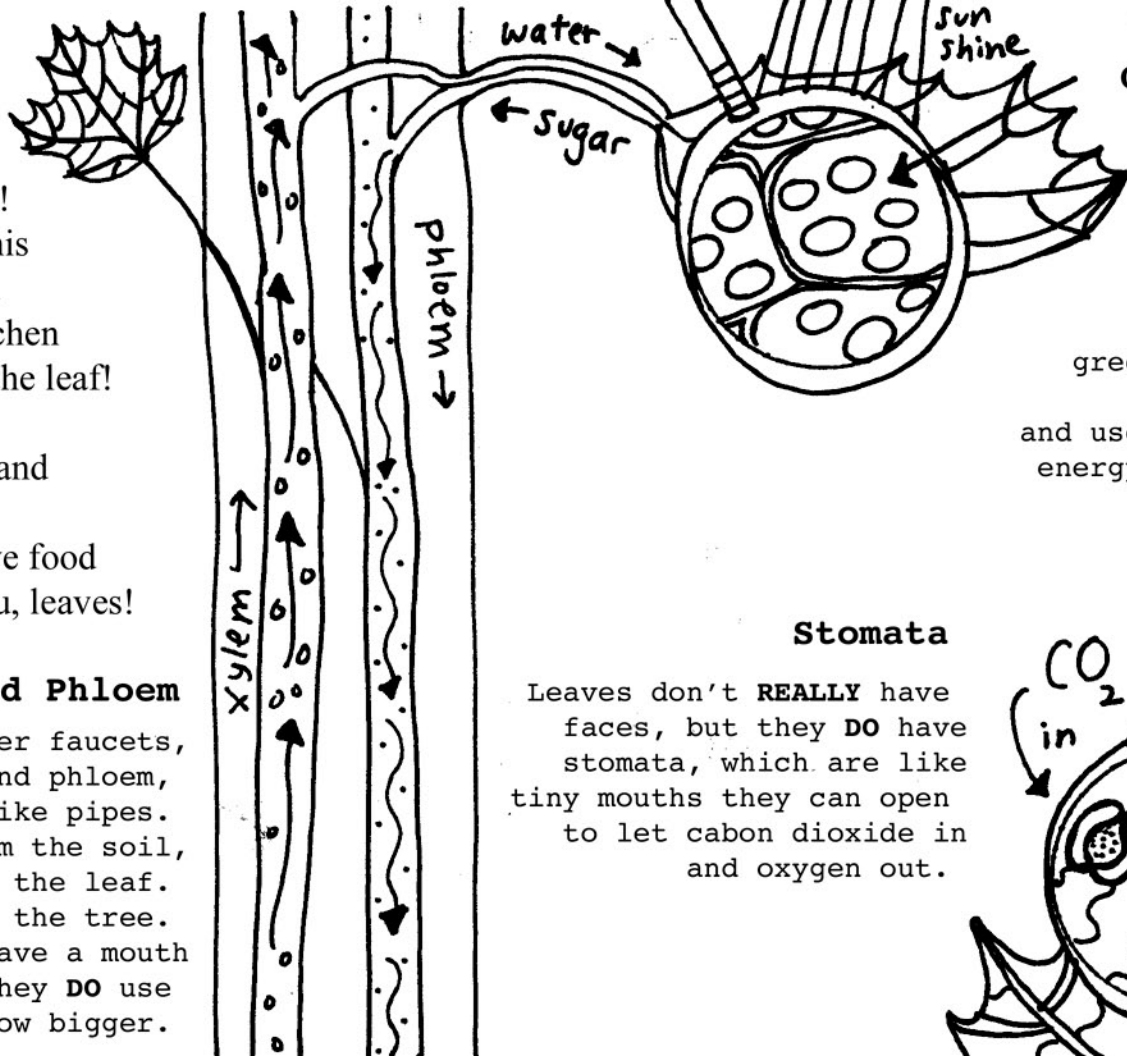
Is this recipe for REAL?

Leaves DO make food out of sunlight, water and carbon dioxide! When leaves make food, we call this photosynthesis (fo-to-SIN-the-sis). Leaves don't REALLY have a kitchen to cook in: the kitchen is INSIDE the leaf! When leaves photosynthesize, the chemicals react to make sugar and a lot of extra oxygen, or fresh air. Because of photosynthesis, we have food to eat and air to breathe. Thank you, leaves!

Xylem and Phloem

Trees don't REALLY have water faucets, but they DO have xylem and phloem, (ZI-lem and FLO-em) which are like pipes. Xylem moves water up from the soil, through the roots up to the leaf. Phloem moves the sugar around the tree.

Trees don't REALLY have a mouth to eat lunch with, but they DO use food made by leaves to grow bigger.

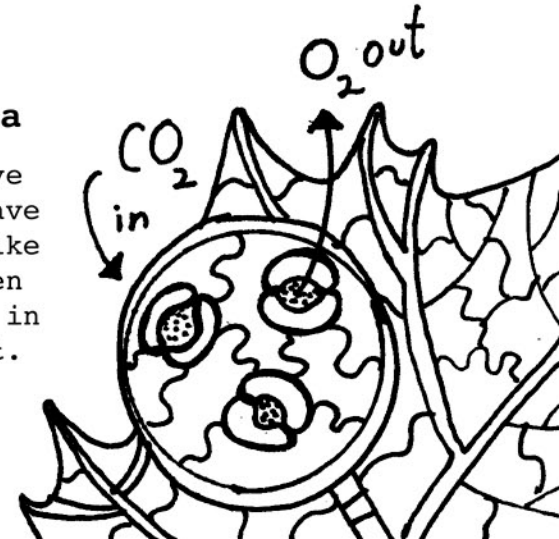


Chloroplasts

Leaves don't REALLY catch sunshine in a bowl! But they DO catch sunshine in green chloroplasts (KLO-ro-PLASTs) and use the sunshine's energy to make sugar.

Stomata

Leaves don't REALLY have faces, but they DO have stomata, which are like tiny mouths they can open to let carbon dioxide in and oxygen out.



Glossary:

Carbon dioxide – a gas that is part of the air. Leaves take carbon from carbon dioxide and use it to store energy in a sugar, or glucose. When living things (including trees!) burn the glucose (aka eat the food) to use energy to live and grow, they give off carbon dioxide also.

Chlorophyll – a green pigment that can capture the energy in the rays of the sun.

Chloroplast - a tiny balloon filled with chlorophyll where photosynthesis takes place inside a leaf or other green living thing.

Energy – the power to do work.

Glucose – the sugar created during photosynthesis.

Oxygen – a gas that is part of the air. When leaves split carbon dioxide and water to make glucose, they give off a lot of extra oxygen. You need oxygen to breathe. You use oxygen to burn glucose (aka eat food) to release energy. Without oxygen, many living things cannot get energy to live and grow from food.

Phloem – living tubes that move the sugar or glucose from the leaves to other parts of the plant or tree.

Photosynthesis – when green leaves use sunlight, water and carbon dioxide to store energy in the form of sugar, or glucose. Other living things that make chlorophyll also do photosynthesis.

Stomata – tiny openings on leaves that take air in and let air out.

Xylem – living tubes that move water up from the roots to the leaves.

