WHY DO Plants need Soil?

Nerolyn Kama
Narrabri Public School

Enviro-Stories

Enviro-Stories is an innovative literacy education program that inspires learning about natural resource and catchment management issues. Developed by PeeKdesigns, this program provides students with an opportunity to publish their own stories that have been written for other kids to support learning about their local area.

www.envirostories.com.au

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Why do plants need soil?

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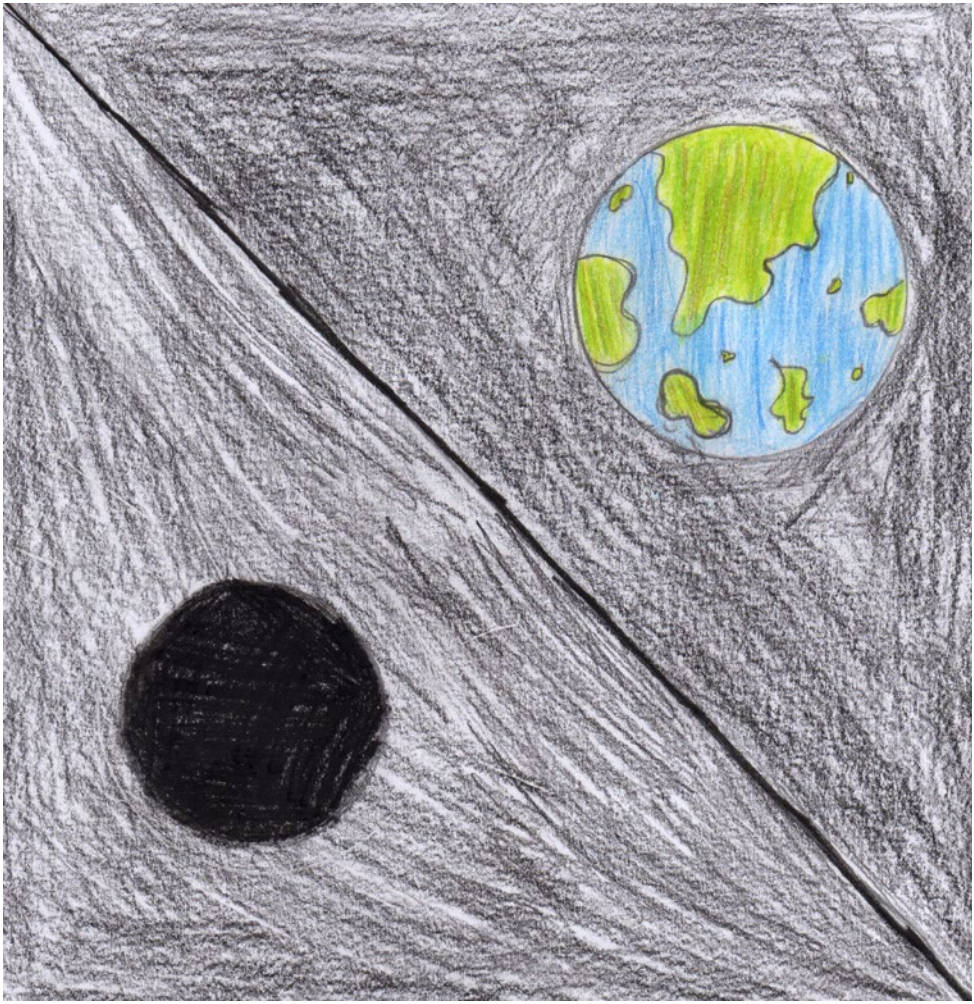
This book has been published as part of the 2017 Sensational Soils Enviro-Stories program which was supported by the Cotton Research and Development Corporation.

ISBN: 978-0-9954323-7-6

Enviro-Stories is a PeeKdesigns initiative, www.peekdesigns.com.au.

Citation: Kama, N. 2017. *Why do plants need soil?*. Cotton Research and Development Corporation, NSW.



Can you imagine the Earth without soil?

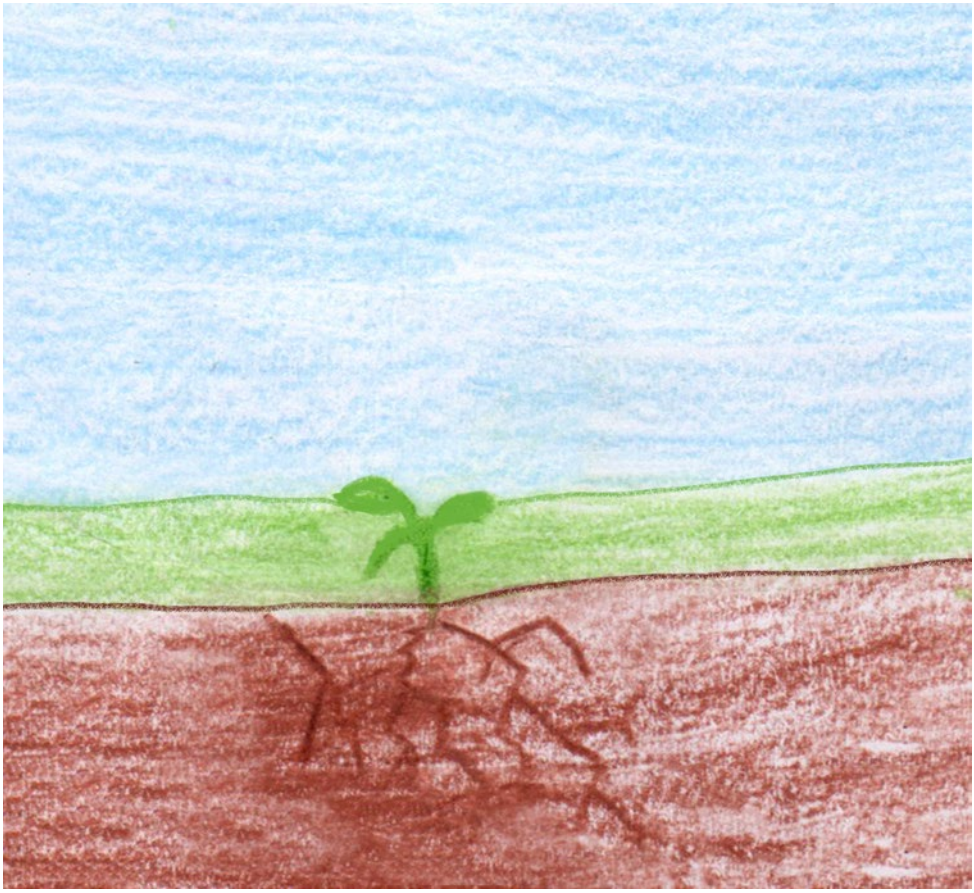
You probably wouldn't be able to because there would be nothing at all.

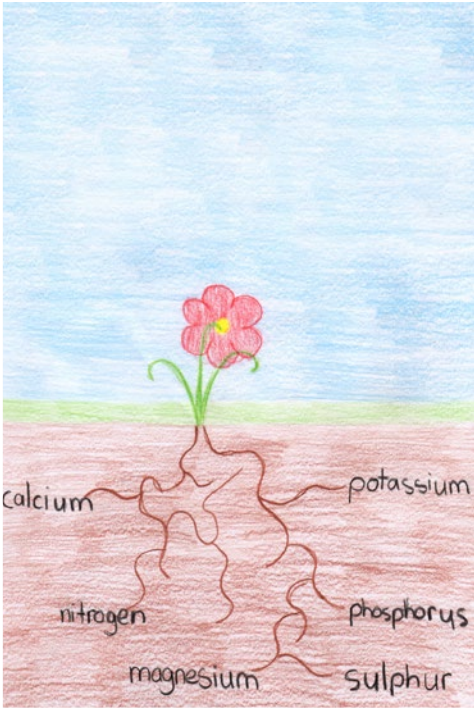
Soil is very important to the Earth because plants need it to survive and humans need plants to survive too.

Plants deliver oxygen to humans and without oxygen we would die. So without any plants there would be no life at all.

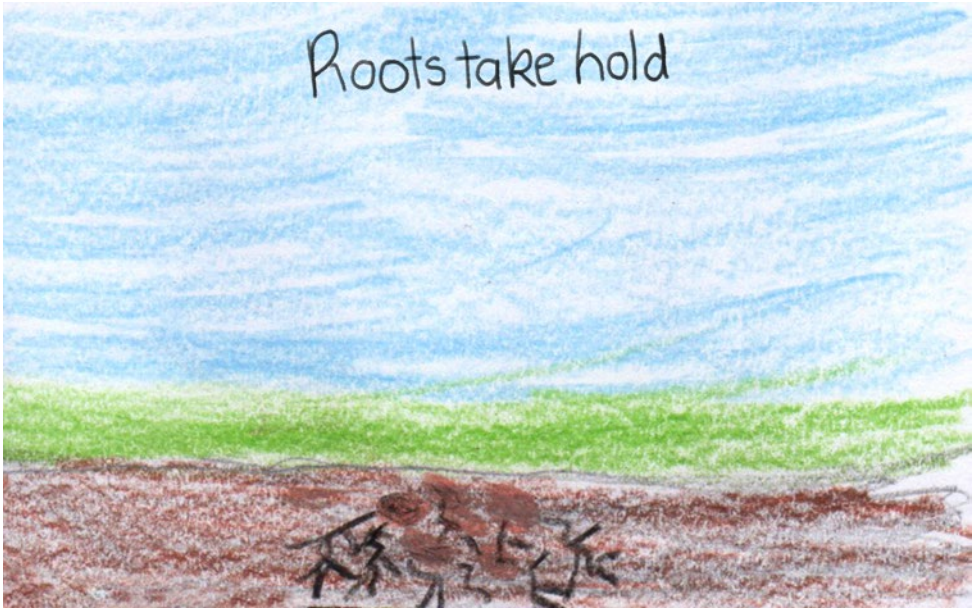
Some of the ways soil is important to plants are:

- It helps seeds to germinate
- It provides physical support for plants to grown on
- It provides nutrients for plants to grow
- It holds water for plants to drink from
- It helps in recycling dead plants and animals

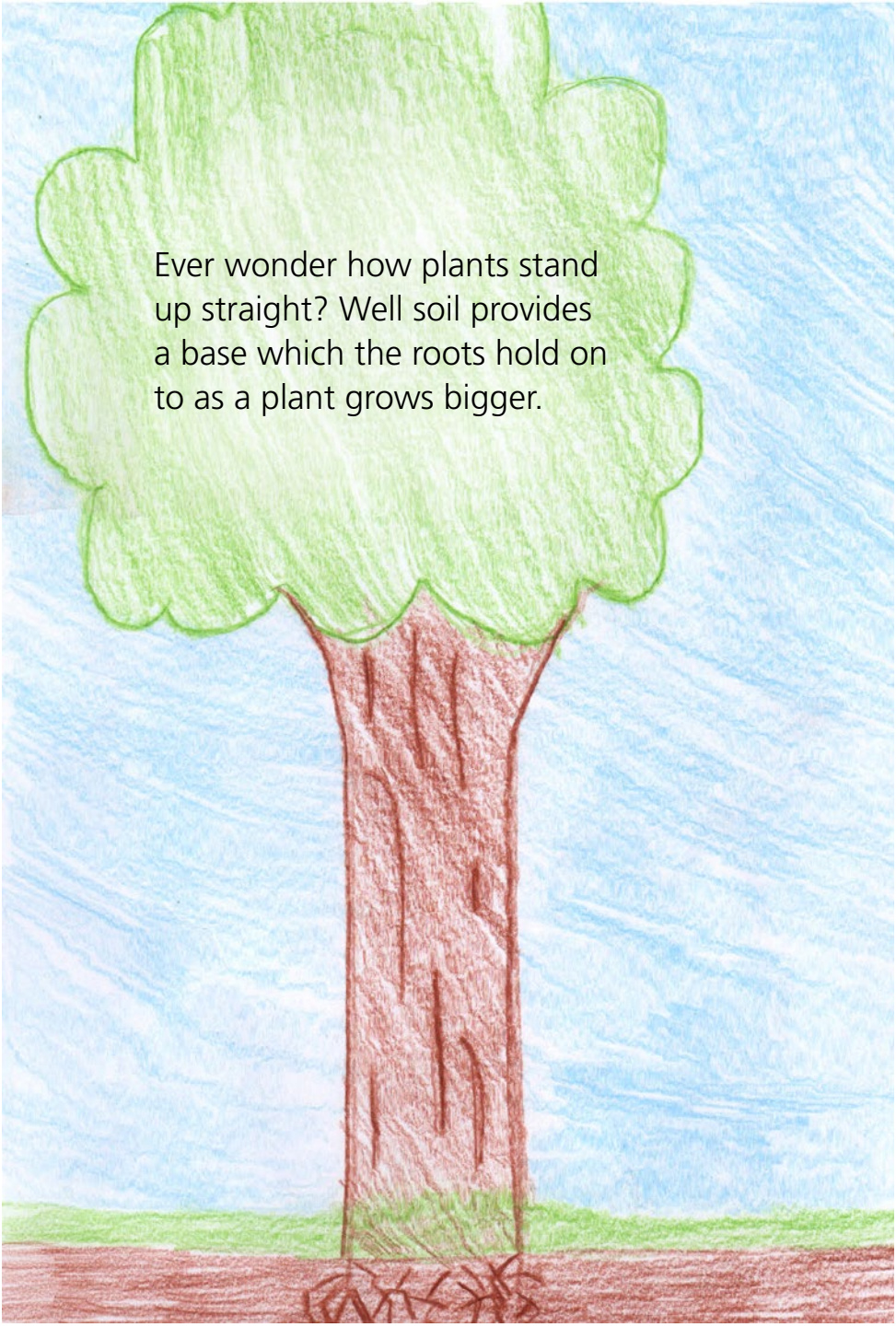



calcium
potassium
nitrogen
phosphorus
magnesium
sulphur

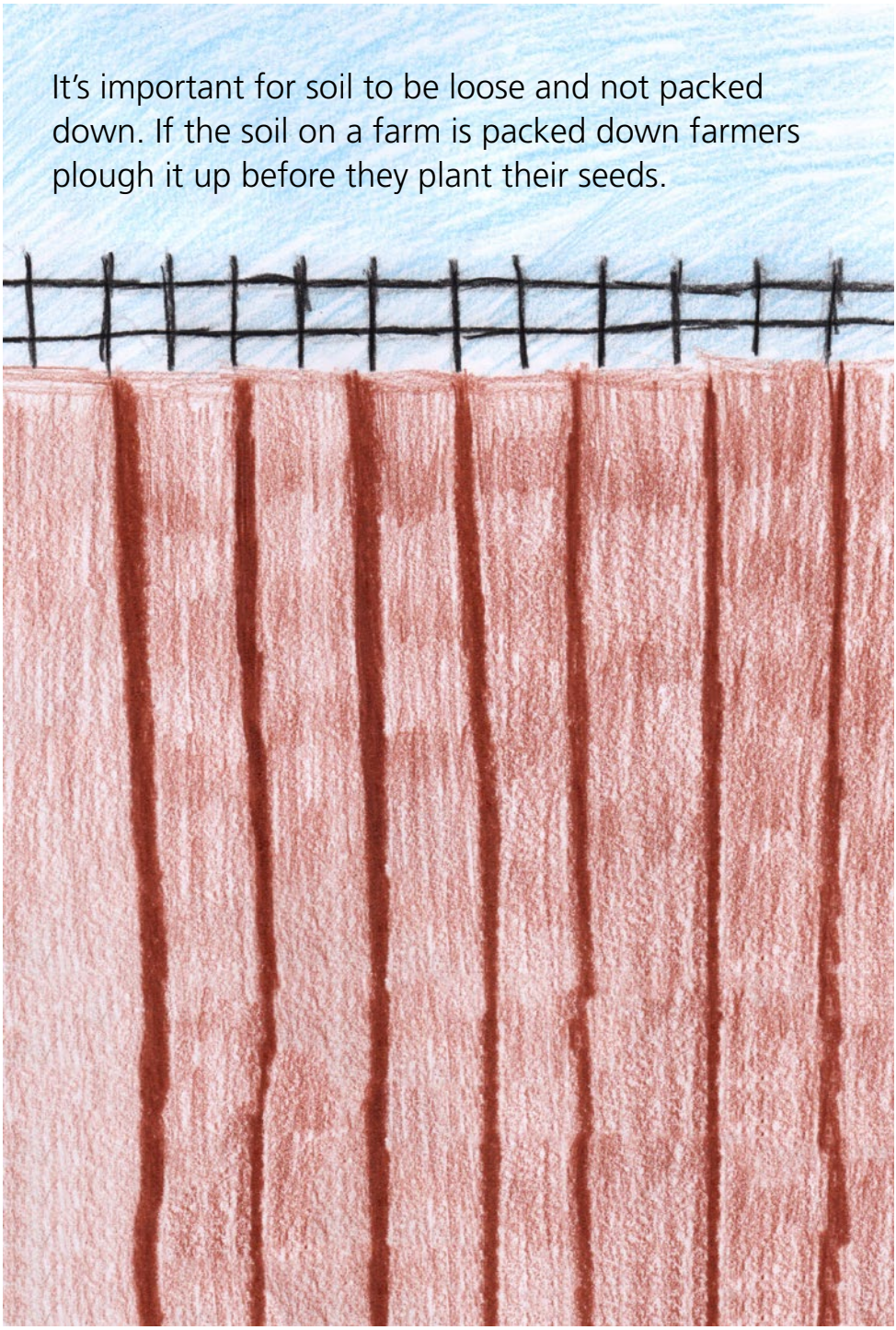
It's fascinating how soil works in many different ways, especially how it helps a seed to grow. When these seeds are planted they first grow roots.

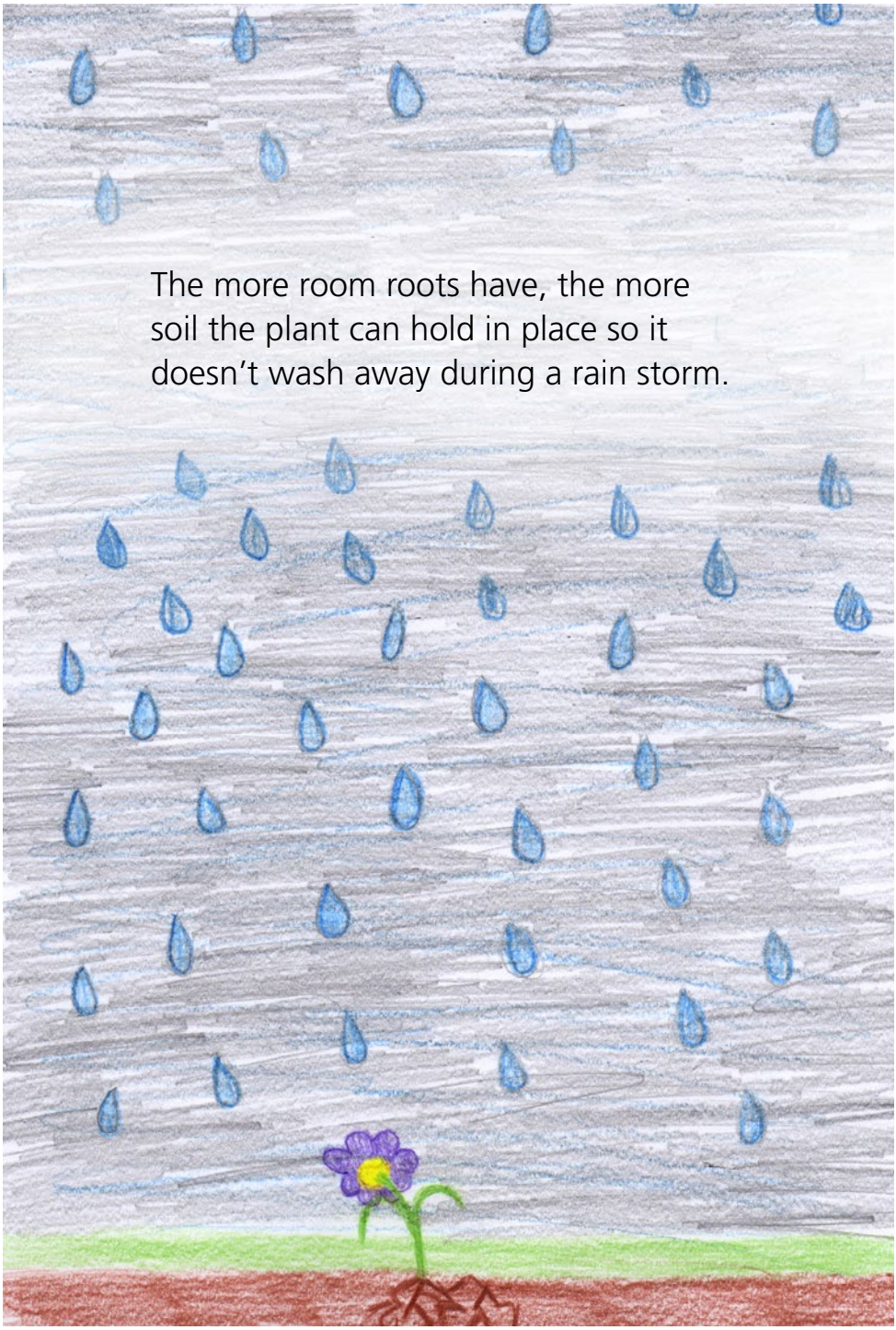


Once these roots take hold, a small plant will begin to emerge and eventually break through the soil. When this happens we say the seed has sprouted. This process is called germination.

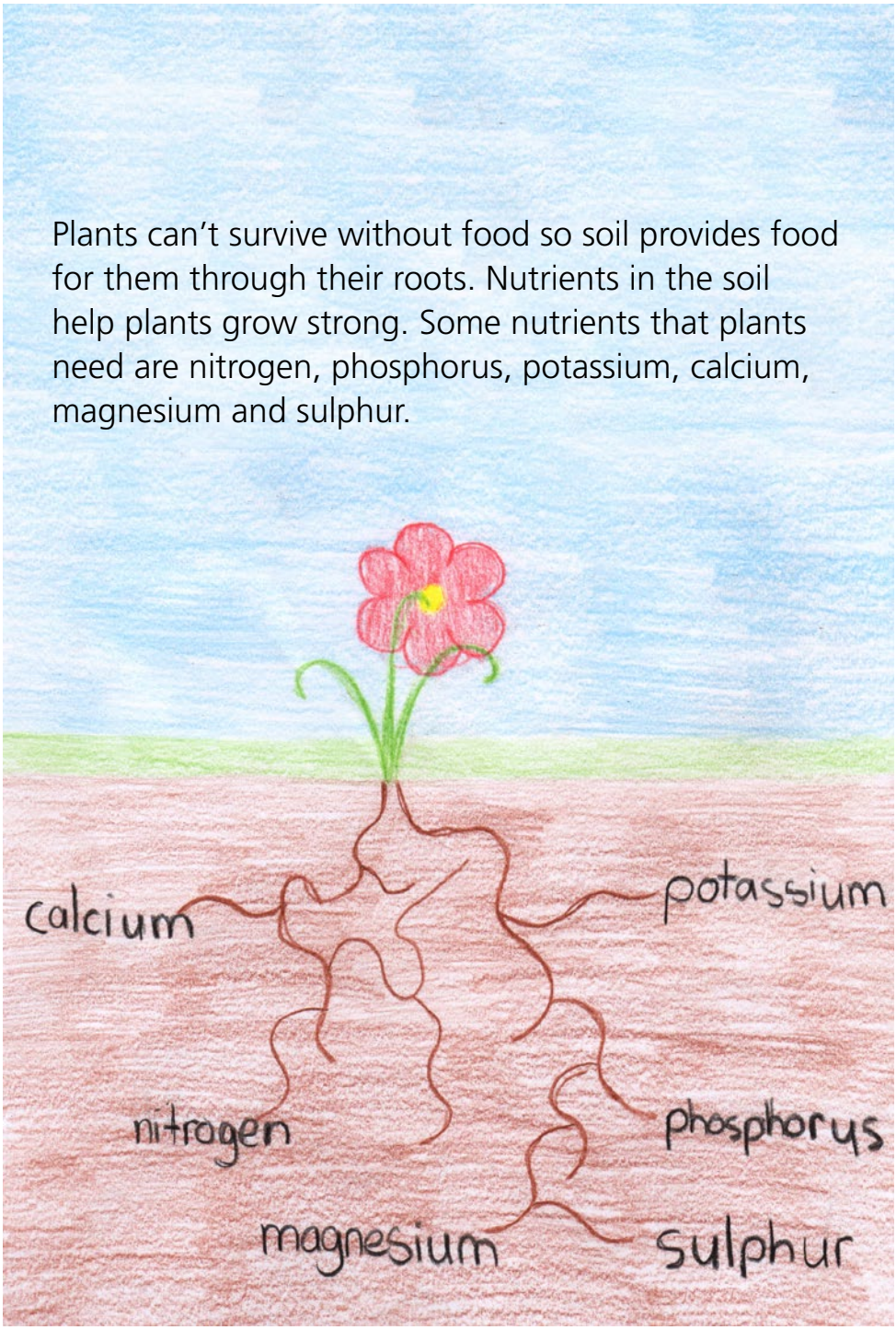

Ever wonder how plants stand up straight? Well soil provides a base which the roots hold on to as a plant grows bigger.

It's important for soil to be loose and not packed down. If the soil on a farm is packed down farmers plough it up before they plant their seeds.

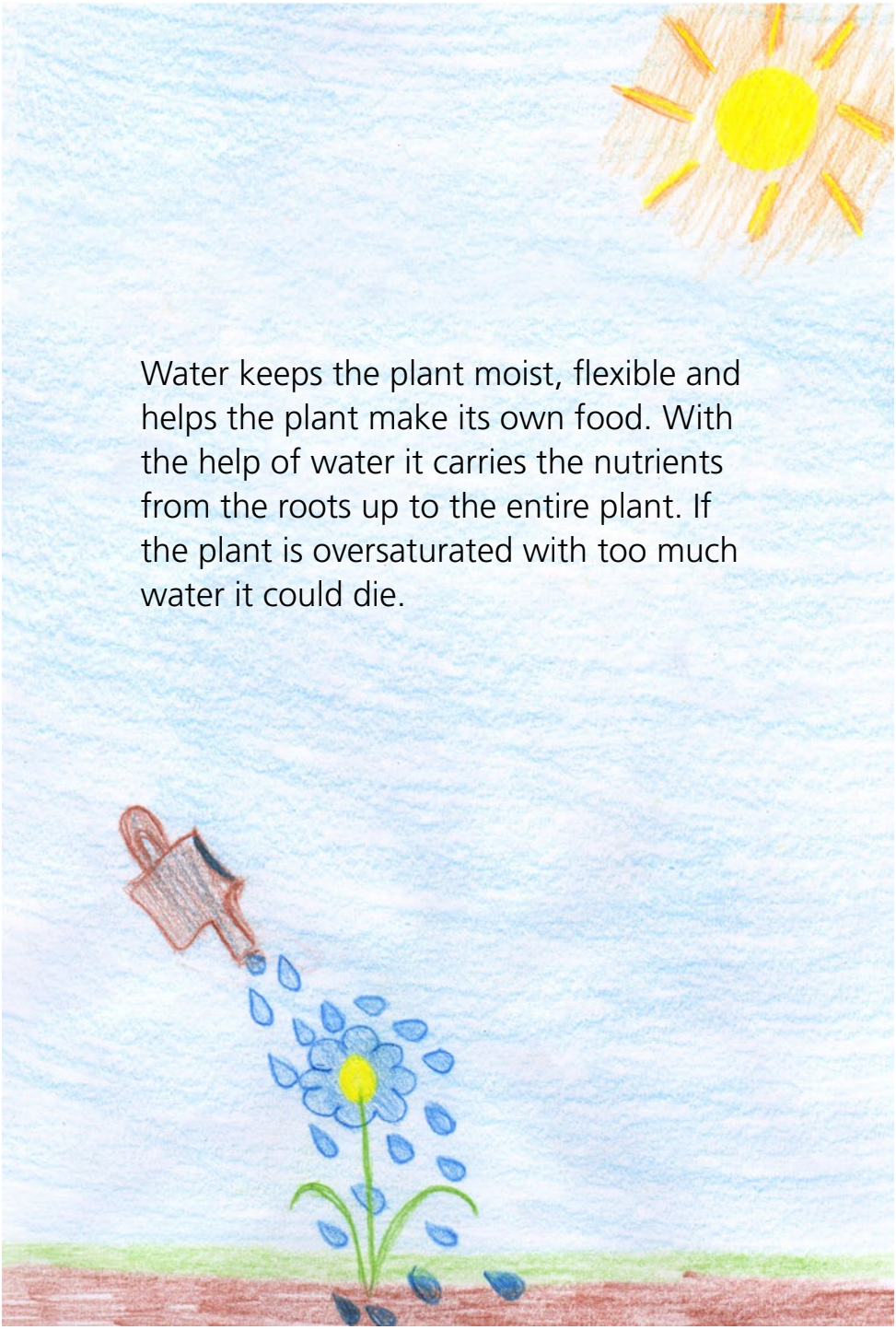



The more room roots have, the more soil the plant can hold in place so it doesn't wash away during a rain storm.

Plants can't survive without food so soil provides food for them through their roots. Nutrients in the soil help plants grow strong. Some nutrients that plants need are nitrogen, phosphorus, potassium, calcium, magnesium and sulphur.

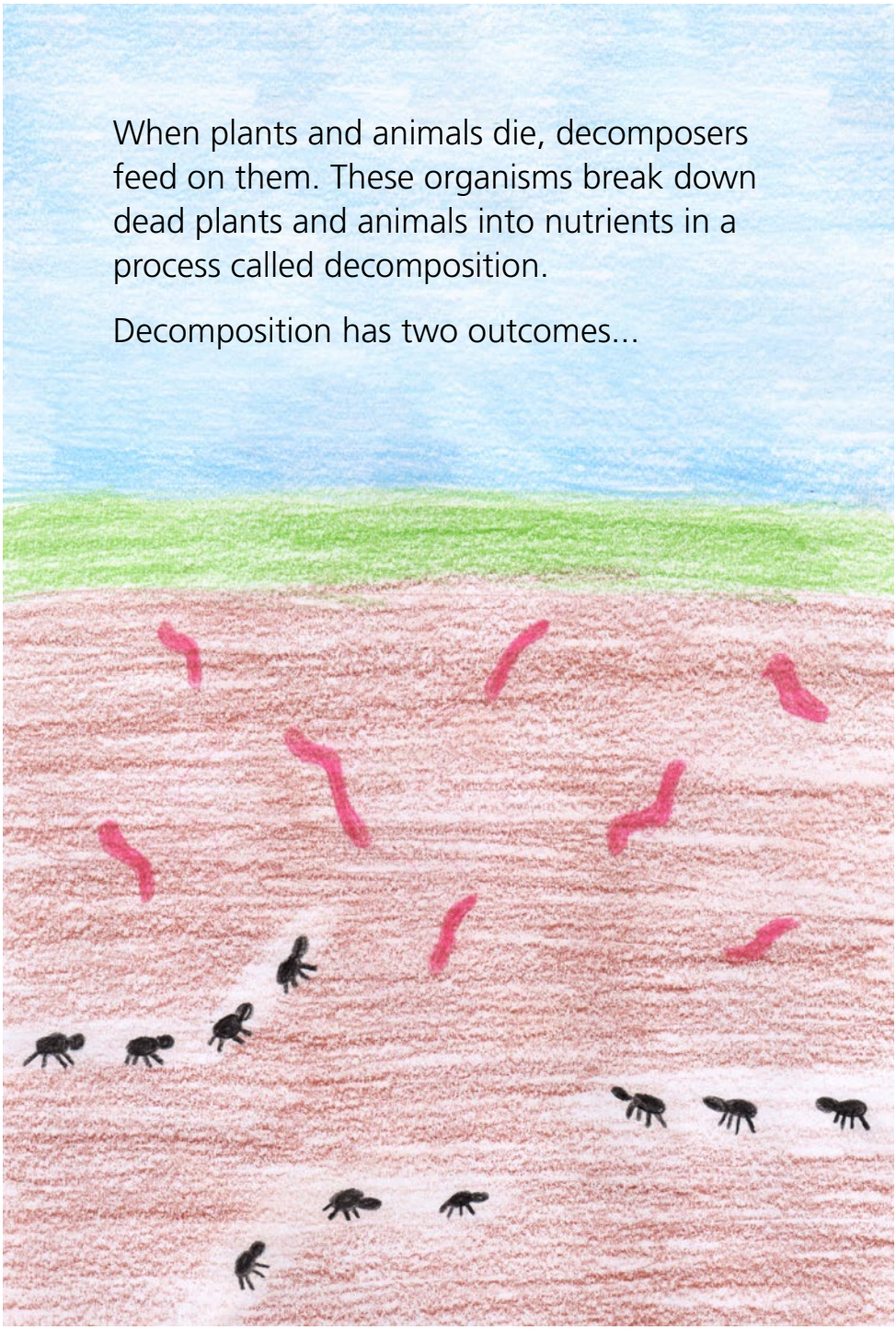


Water keeps the plant moist, flexible and helps the plant make its own food. With the help of water it carries the nutrients from the roots up to the entire plant. If the plant is oversaturated with too much water it could die.

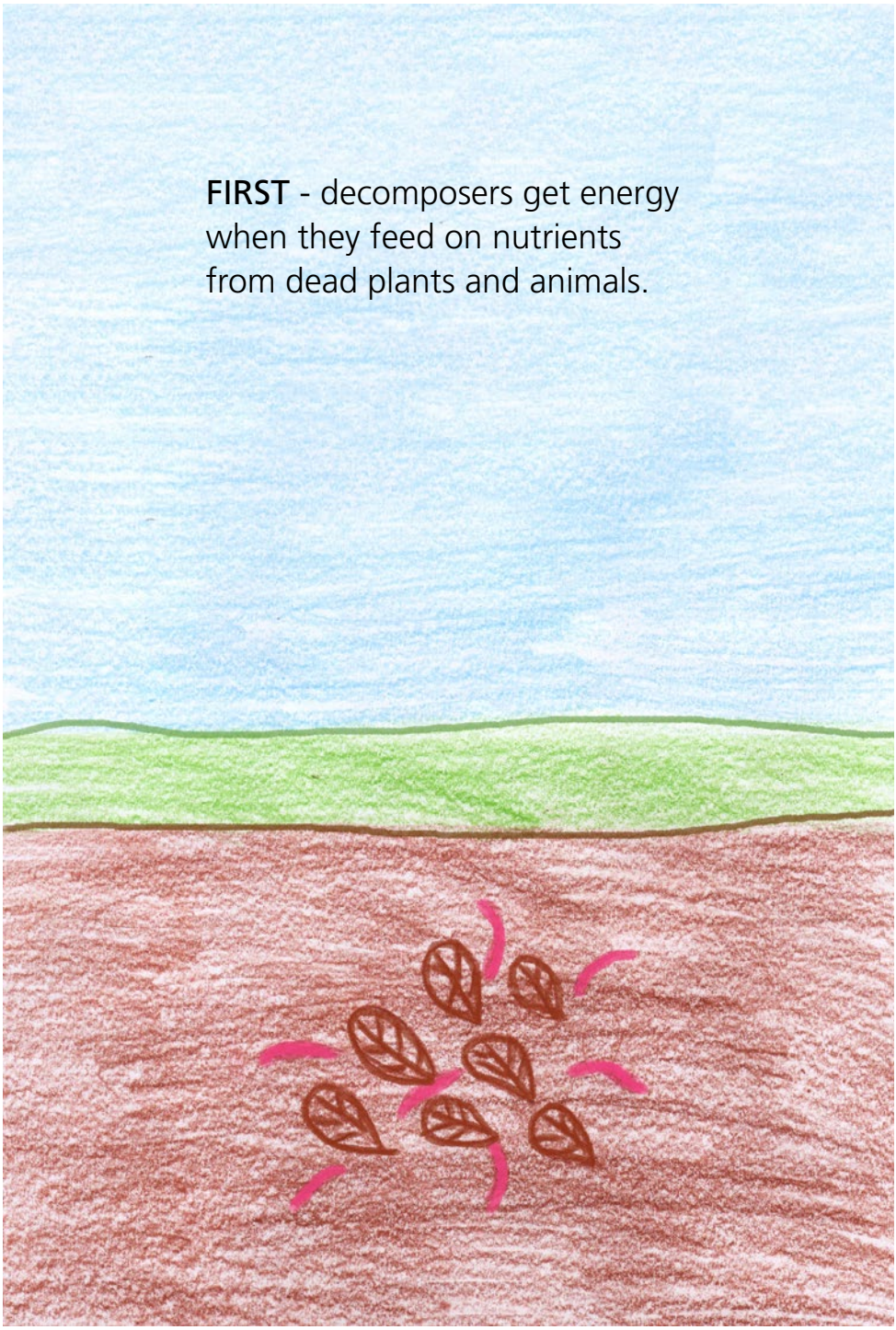


When plants and animals die, decomposers feed on them. These organisms break down dead plants and animals into nutrients in a process called decomposition.

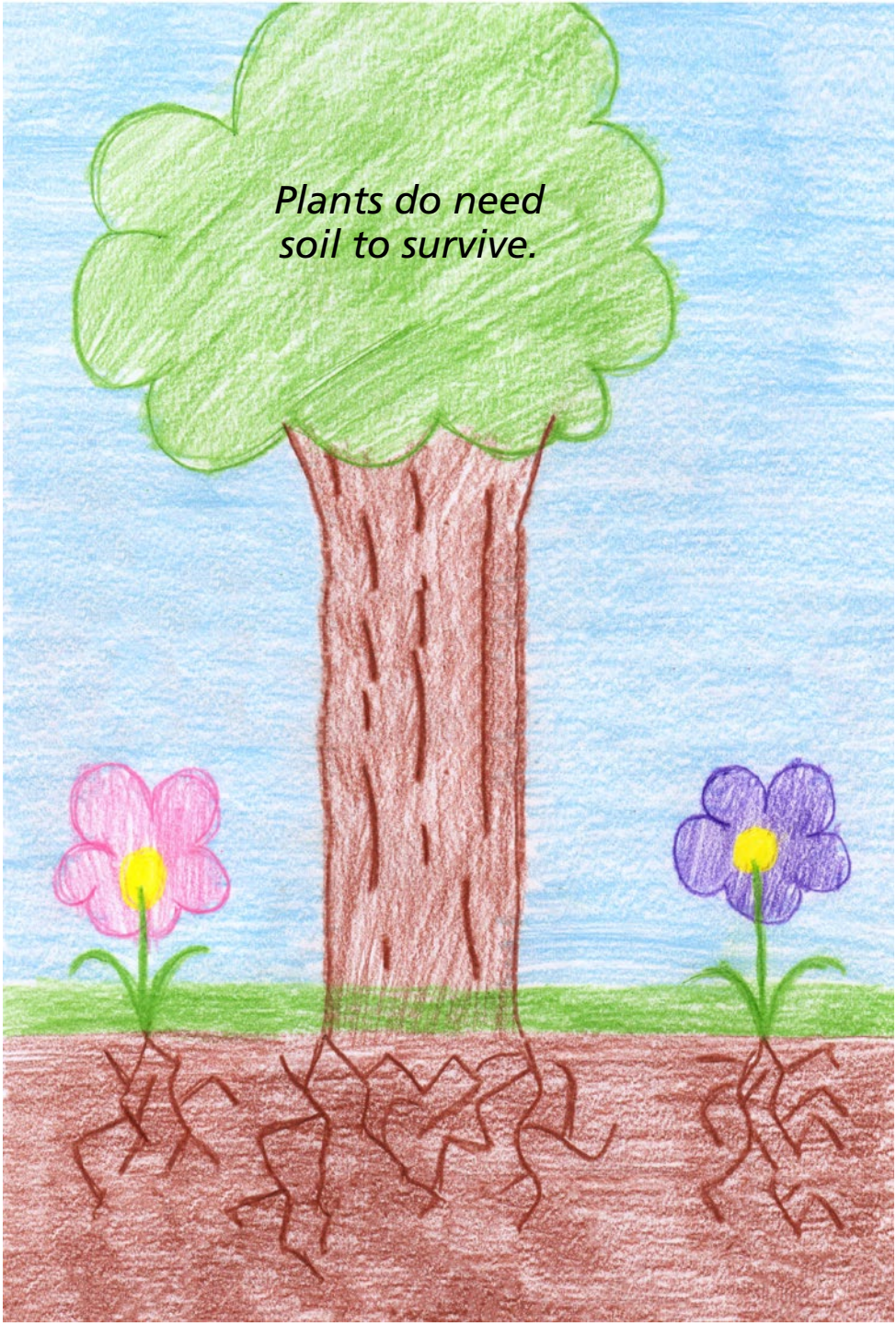
Decomposition has two outcomes...



FIRST - decomposers get energy when they feed on nutrients from dead plants and animals.



SECOND - decomposers release nutrients into the soil.


Plants do need
soil to survive.

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