

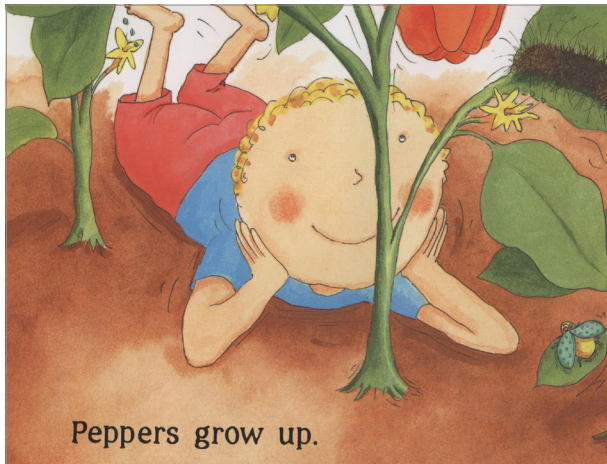
Up, Down, and Around

by Katherine Ayres and Nadine Bernard Westcott

AGE LEVEL 3–5 YEARS

About the Story

Children learn about spatial directions as the seeds drop down into the soil, the stalks reach up to the sky, and the pumpkin vines twirl around and around. These spatial concepts are embedded in nature as children also learn about how different vegetables grow.



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Words to Learn

MATH WORDS

up, down, around, row

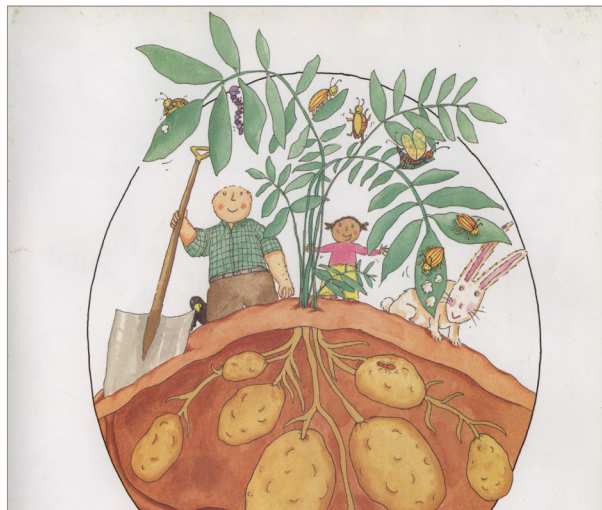
OTHER WORDS

row, splashes, cucumbers, vine, broccoli, beets, wind, okra, twine

About the Math

As you read about how the different vegetables grow in the garden, your child can learn:

- Spatial words that describe the location and direction of objects, including *up*, *down*, and *around*.
- That some pairs of spatial words describe an opposite relationship: For example, *up* is the opposite of *down*.
- How different vegetables grow in different directions. For example, peppers grow *upward* while potatoes grow *downward*.



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Math Talk During Reading

OBSERVE THE DIRECTION THAT THE VEGETABLES ARE GROWING

In what direction is the broccoli growing? Is it growing up or growing down? What about the beets?

COMPARE HOW THE DIFFERENT VEGETABLES ARE GROWING

Are the potatoes and the pumpkins growing in the same direction? How do you know?

CONNECT THE STORY TO YOUR CHILD'S LIFE:

When we planted a seed, where did we put the seed? Did we have a row for the seeds? In what direction did the plant grow?

EXPLORE OTHER SPATIAL WORDS

I notice the boy is lying under the peppers and the ant is on top of the leaf. Where is the bunny?

Try to come up with some of your own questions and comments, too!

Activity After Reading

As you're taking a walk with your child, look for opportunities to use the words *up*, *down*, and *around*. For example, talk with your child about how the leaves are *high up* on the tree, while the vines wrap *around* the tree.