

Chen and Maria Plant a Radish

CHAPTER 1

Maria was holding a tiny seed in her hand. She looked at it. "I don't get it," she said.

"What don't you get?" asked her mother.

"How can this tiny seed turn into a great big radish plant? There's no room in this seed for a radish plant!"

"You'll see!" said her mother.

Maria's neighbor Chen had a radish seed, too. He asked, "What is a radish, anyway? Are they good to eat?"

"Some people like them," Maria's mother said, "and some people don't. But one good thing is that they grow very fast. That's why we're planting them."

Maria scooped out a hole in the ground and put her seed into it. Her mother gave her a big bag of fertilizer and she put some in the hole. Then she covered the seed with dirt. Chen made his own hole and planted his seed near Maria's. Then the children sprinkled water on their seeds.

"We'd better put up some signs so we know which seed is whose!" said Maria's mother. So Maria and Chen made some signs and stuck them in the ground next to their seeds.



How does a tiny seed become a big plant?

CHAPTER 2

The next morning before school, Maria and Chen met at the garden to see whether their seeds were growing. The two little mounds of dirt looked just the same. Nothing was growing out of them. Chen and Maria sprinkled more water on them. Then they walked to the school bus stop.

The next day the same thing happened, and the day after that. "I told you!" said Chen. "We're never going to get a great big radish plant out of such a small seed!"

"Wait and see!" said Maria's mother. "Just remember to keep watering your seeds."



Another day went by and still there were no changes to the little mounds of dirt that covered up their seeds. It looked as though nothing was happening. Even Maria was getting discouraged, but Maria's mother just said, "Wait and see!" so the children sprinkled water on their seeds and waited.

The next day was Saturday. There was no school so Maria and Chen had planned to play basketball with some friends. But when Chen arrived at their house, Maria's mother had a little smile on her face.

"Before you go play," she said, "you might want to check on your radish seeds."

Maria and Chen rushed out to the garden and looked at the mounds of dirt where they had planted their seeds. In the middle of each mound there was a tiny green sprout just barely poking out of the dirt.

"Is that a radish plant?" asked Chen. "It doesn't look big enough!"

"It's just a baby!" said Maria. "It's cute!" She picked up the watering can and sprinkled some water on her baby plant. Chen watered his plant, too, and then they went to the playground.

CHAPTER 3

Maria and Chen's plants grew and grew! The children raced to feed their plants with water to see whose plant would be the biggest. Some days Chen's was bigger than Maria's, while other days Maria's was bigger. Some days they were just the same.

"Don't water them too much!" warned Maria's mother. "That would be bad for them. They need just enough water and just enough sunlight to grow."

The plants continued to grow and grow. By the end of two weeks both of them came up to Chen and Maria's ankles.

"Whose plant is bigger?" asked Maria.

"They're both the same size," said her mother.

"When can we eat them?" asked Chen.

"Soon," said Maria's mother. "They're not quite ready yet."

"I don't want to eat mine," said Maria. "I want to keep it just the way it is forever."

"Well, I think you should both keep them to show Elvira," said Maria's mother. "She's coming to visit tomorrow."

"Elvira is coming?" said Maria. "Why didn't you say so? Of course, we should show them to her!"

CHAPTER 4

Maria and Chen were looking forward to Elvira's visit. She was a friend of Maria's parents, but she was also a friend of theirs. And surprising things often happened when she visited – especially when Maria's parents weren't around. Maria and Chen could hardly wait to see what would happen this time!

On Sunday morning the children waited until almost noon for Elvira to come. Finally, just when they were losing hope, they heard the sound of her car coming down the street. Elvira drove a little red sports car that sounded very loud! They rushed out just in time to see it screech around the corner and pull into the driveway in front of the house. Elvira got out. She was very tall and her hair was flaming red and her eyes were as green as grass. She was wearing a long purple dress and sandals and she carried a large cloth bag. It was green with bright yellow flowers on it.

"Elvira, Elvira!" shouted Maria. "Come and see!" She grabbed Elvira by the hand and dragged her around the house to the garden. Chen followed close behind.



"Look!" said Maria. "That's my radish plant! I planted it!"
"That one's mine," said Chen, pointing. "Mine's bigger!"
"It is not!" said Maria.

"They look both the same to me," said Elvira. "When did you plant them?"

Chen and Maria both spoke at the same time.

"A long time ago!" said Chen.

"Just a few days ago!" said Maria.

"Well," said Elvira, "which is it? A long time or just a few days?"

"It was Monday," said Maria.

"Which is a long time ago!" said Chen. "We watered them and watered them and nothing came up."

"It takes time for plants to grow," said Elvira, "even if you water them."

"Besides," she went on, "they were growing all along! When you thought nothing was happening, your plants were growing underground! In fact, there's more of your plants underground than the parts you can see!"

"Cool!" said Chen. "I wish we could see underground."

"You can!" said Elvira, "Now where did I put that viewer?"

She reached into her bag and poked around. "I know it's in here somewhere," she said. "Oh, yes, here it is!" She pulled out something that looked like a flashlight.

"Is that a flashlight?" asked Maria.

"It's kind of like a flashlight," said Elvira, "only better. It's a magic flashlight that lets you look right through things. Watch!"

She turned on the flashlight and pointed it at Chen's shoes. In the light from the flashlight the shoes disappeared and they could see Chen's feet.

"Cool!" said Chen. He wiggled his toes and they could all see them move.

"It's like an X-ray," said Maria. She had learned about X-rays in school.

"Yeah, like Superman!" said Chen. "He can see right through stuff."

"Sort of like that," agreed Elvira. "Let's use this flashlight to take a look at the part of your radish plant that's underground." She pointed the flashlight at Chen's radish plant. The ground disappeared and Maria and Chen could see right through it.

"It looks like a tree upside down!" said Maria.

"Those are the roots," said Elvira. "They were busy growing down all the time you were waiting for the plant to come up."

"That's why we had to keep watering it," said Chen.

"Yes," said Elvira, turning off the flashlight. "Plants need water in order to grow."

CHAPTER 5

"Would you like to see how your plants grew when you planted them?" asked Elvira.

"Sure!" said Maria. "But how can we do that? They're already grown!"

"It's easy," said Elvira. "If I can just find my time controller." She reached into her bag again and this time she took out a small plastic box with buttons on one side.

"That looks just like the remote control on our TV," said Chen.

"It's sort of like that," said Elvira, "except that a regular remote only controls the TV. This one controls the whole world! Watch your radish plants now while I push the 'Rewind' button."

Maria and Chen got down on their knees and put their faces right up next to their plants. Pretty soon something began to happen.

"My plant is getting smaller!" said Maria.

"So is mine," said Chen. "What's going on?"

"I hit the 'Rewind' button on the controller," explained Elvira, "and now time is running backwards!"

As Elvira said this, Chen and Maria's plants disappeared into the ground.

"They're gone!" said Maria. "After all that hard work, our plants just disappeared. I don't like this remote control thing! Bring my plant back!"

"Your plant is still there, it's just underground," said Elvira. "Remember? Let's take a look at it." She pointed the flashlight at the ground and turned it on. The ground disappeared again and Chen and Maria could look right through it.

"I don't see my plant!" said Maria, "What have you done with it?"

"It's there," said Elvira, "but it's very small. Look closely!"

"There it is!" said Chen. "It's just a seed!" He pointed at the seed in the ground.

Elvira said, "Now watch what happens when I run time forward again." She pressed a button. "I've hit the 'Fast Forward' button," she said, "so we don't have to wait a whole week for the plants to come up again."



"Good!" said Chen.

"The roots are beginning to grow!" said Maria.

"Mine's growing sideways!" said Chen.

"That's because you planted it wrong!" said Maria. "See, mine's growing straight down."

"It doesn't matter how you plant the seed," said Elvira, "The roots always end up going down. Sometimes they start out sideways, but then they turn down. See?" Sure enough, Chen's root had turned and it was now growing down. "Remember," said Elvira, "I'm running time on fast forward. Two days have gone by already."

"Ooh!" said Maria, "the top part of my root is turning pink!"

"And there's a green thing on the end of it," said Chen.

"The pink thing is going to turn into the stem of the plant," said Elvira, "and the green thing is really two green things – the first two leaves!"

"But they're still underground!" said Maria.

"Not for long!" said Elvira. "This is the fourth day since you planted the seeds. The plants are about to come up."

"The roots are getting fuzzy," said Chen.

"They're growing little roots out the side," said Elvira. "That happens just before the plants sprout. See how the leaves are bent over? Watch what happens when they straighten out!"

Just then an amazing thing happened. Maria's plant came popping right out of the ground. Then Chen's plant came up right behind it. Their stems straightened and their two little leaves spread out. Chen and Maria were very excited.

"They're beautiful!" said Maria.

"They're amazing!" said Chen.

"This is the way the plants looked yesterday," said Elvira. "Remember to look at their roots, too. What do you see?"

"The roots are sprouting roots!" said Chen. And sure enough, all along the root of each plant little roots were growing out! They grew and grew. Pretty soon the roots from Chen's plant touched the roots from Maria's plant and they got all tangled up.

In the meantime, the stems of the plants were growing, too. The plants got taller and taller. Soon, new leaves began to sprout from the stems. The leaves all turned toward the sun.

"That's it," said Elvira. "My little time machine has brought us back to the present." She put the remote control back in her bag.

CHAPTER 6

"Every part of the plant has a purpose," said Elvira. "The roots bring water and nutrients out of the ground."

"You mean like the fertilizer we put in the hole?" asked Maria. "That kind of nutrient?"

"Exactly!" said Elvira. "Then the stem carries the water and nutrients to the leaves and the leaves bring in air and sunshine and make food for the plant to grow."

"I get it," said Maria.

"I don't," said Chen.

"What don't you get?" asked Elvira.

"You said the leaves make food for the plant to grow," said Chen.

"That's right," said Elvira.

"And they need air and sunshine to do that," Chen went on.

"That's right, too," said Elvira.

"But our plants were growing before there were leaves," said Chen.

"He's right!" said Maria. "The roots were growing before the leaves popped out! So where did the plant get the food for that?"

"You two are very clever!" said Elvira. "I left something out when I explained about plants. I left out the fruit."

"What fruit?" asked Chen. "These plants don't have any fruit."

"They don't have fruit yet," said Elvira, "but they will if you wait a while. In another two or three weeks, if you keep watering your plants, they will grow fruits with seeds inside them."

"You mean like an apple?" asked Maria.

"Just like an apple," said Elvira, "only much smaller. Radish fruits aren't good to eat. They're much too small. But they provide food for the seed so that it can grow when there are no leaves."

"All this talk about food is making me hungry!" said Chen. "I'm going to eat my radish."

"I'm not," said Maria. "I'm going to let it make fruit and seeds and then I'll plant the seeds and make baby radishes."

And that's what they did!

THE END

Describe something you learned from this story about growing plants.

Draw a picture of a plant from the story. Label the parts of the plant and what they are for.