

This is Scoop and this is Dennis....

and together they are going to help us get
The Scoop on Soils



Simon, Anita and Dennis had just finished with the GLOBE club at their school.

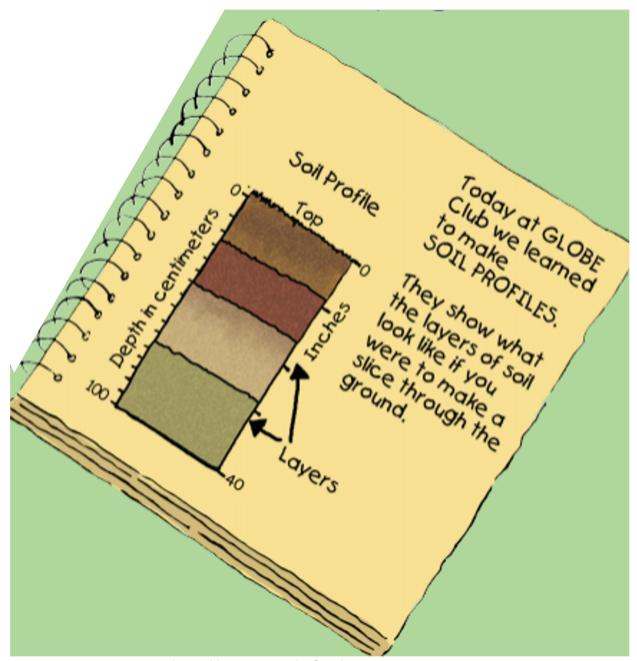
"Wow, that was fun!" said Simon. "I'm glad we're doing a project on soil."

Anita agreed, "There were so many things in soil like rocks, roots, and critters. This is going to be great!"

Dennis added, "I also liked the pictures of soil profiles and learning how the layers of soil look the deeper you dig into the ground."

"Uh, Oh - where is Scoop? His leash was tied to the railing to wait for us."

## And our journals are all set to learn more and more about soil!



adapted by Lynne Hehr for the GLOBE program

"Oh, no" cried Dennis, "When Scoop got away last time he dug a big hole in Mr. Webster's flower garden. It took a whole weekend for me to replant everything!"

"Scoop really does like digging holes, doesn't he?" asked Simon.

"That's for sure," replied Dennis. "And that is why we named him Scoop. We've gotta find him before he gets into more trouble."

"Hey," said Anita. "He loves to explore in the forest. Maybe we will find him there."

The three friends ran across the soccer field and up a hill to the forest path.



Right away they heard digging noises.

"I think I hear him!" Anita called out.

They hurried around a curve in the path and saw Scoop. "There he is!" said Simon.

Scoop had dug a big hole in the ground. His paws were covered with brown, white, and red soil.

Scoop stopped digging when he saw the kids and wagged his tail.



"Oh Scoop, look at you!" said Dennis. "You've got to stop running away."

"Wait a minute - look inside the hole he dug!" Anita called out.

Simon sat on the ground and picked up a handful of soil. The soil felt gritty like sand in a sandbox and fell through his fingers. He said, "This is perfect for our GLOBE project. Let's record what we see here."

They opened their journals and started to write and draw what they saw in Scoop's soil profile.

While they were making their observations, Scoop sneaked away.



Anita looked up and said "Oh, no - Scoop is gone again!" "I see his sandy paw prints headed to the meadow," said Simon.

They ran down to the bottom of the hill and saw him digging in the meadow.

"Oh, Scoop," "Another hole? What am I going to do with you?" said Dennis.

Scoop looked up from his digging and wagged his tail.

"Hey," said Anita. "This hole is really different from the other one."



Anita said, "I can see things moving in there. Let's draw what we see." She pulled out her magnifying lens so she could take a closer look.

They noticed lots of critters including earthworms and ants. Starting at the top of the soil, there was one deep, dark brown layer and a beige layer underneath. The soil felt smooth and silty like flour. When Simon picked some soil with a plant in it, the soil stuck to the roots like cookie crumbs.

AND....while the kids were busy, Scoop slipped away.



Simon looked up and couldn't see Scoop anywhere. "Oh no," he said. "We were so busy looking at the soil that Scoop got away again!"

Anita replied, "Look, this time there are dark brown tracks going toward Mrs. Chang's garden!"

"Oh, Scoop, not again! I think we got here just in time," said Dennis. "I see Mrs. Chang's tools, but luckily she has not begun to plant her garden."

Scoop looked up and wagged his tail.

Simon added, "Great! I don't think Scoop did any damage so we can fill in the hole before we leave."



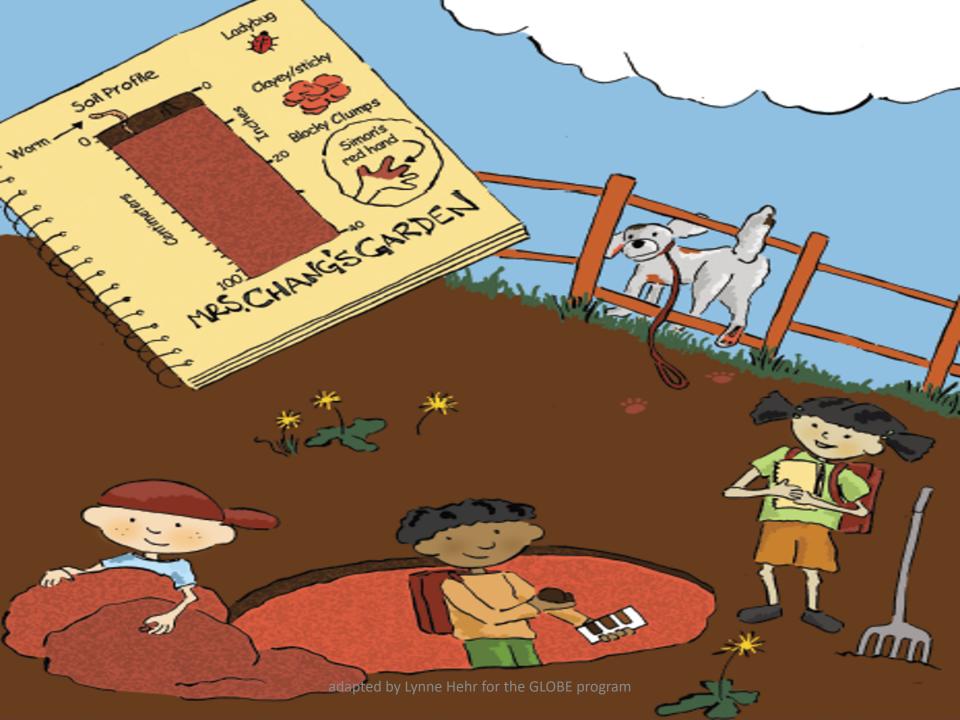
"Wait a minute. This hole looks different from all the other holes we've seen," observed Simon.

Dennis remarked, "I'm glad I have a soil color chart with me – the soil colors are really important!"

Anita said, "It is really neat that the soil is different in each place Scoop dug a hole!"

This time they saw very dark soil on top of a layer of red soil. Because Mrs. Chang tilled the soil every year, the line between the dark brown soil and the red soil was very straight. They also saw critters in the dark brown soil. The clumps of soil felt sticky and stained their fingers red. It felt just like the clay they used at school to mold shapes.

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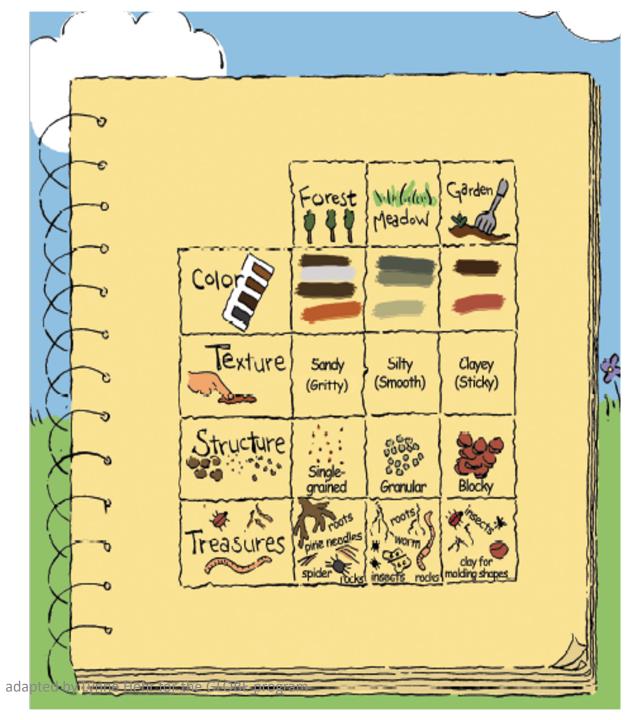
"Now that we have data from all three holes, let's compare our notes," Dennis suggested.

"We can make charts in our journals to record what we saw," said Simon.

They filled in the chart with all the information they had collected from the three holes. They wrote about the soil's color, texture, and structure. They called the different critters and plants they found "treasures."

And their journals now looked like this!

## **Our Soil Journal**



"This is so cool!" said Anita. "From here we can see the three places that Scoop dug his holes. And look! The plants are different in the forest, meadow, and garden. Do you think different kinds of soil help different kinds of plants grow?"

"You may be right, Anita," said Simon. "That is something we can look into."

"Wait a minute," Dennis said. "Scoop is gone again, but I can see him heading up the hill. Let's catch him before he goes too far!"



Anita, Simon, and Dennis caught Scoop just as he was running up the hill away from Mrs. Chang's garden.

Dennis leaned down to pet Scoop and said, "Oh, Scoop, you're not getting away again! You have dug enough holes for one day."

Anita agreed. "You are right, Dennis. But Scoop's adventure helped us collect lots of soil data."

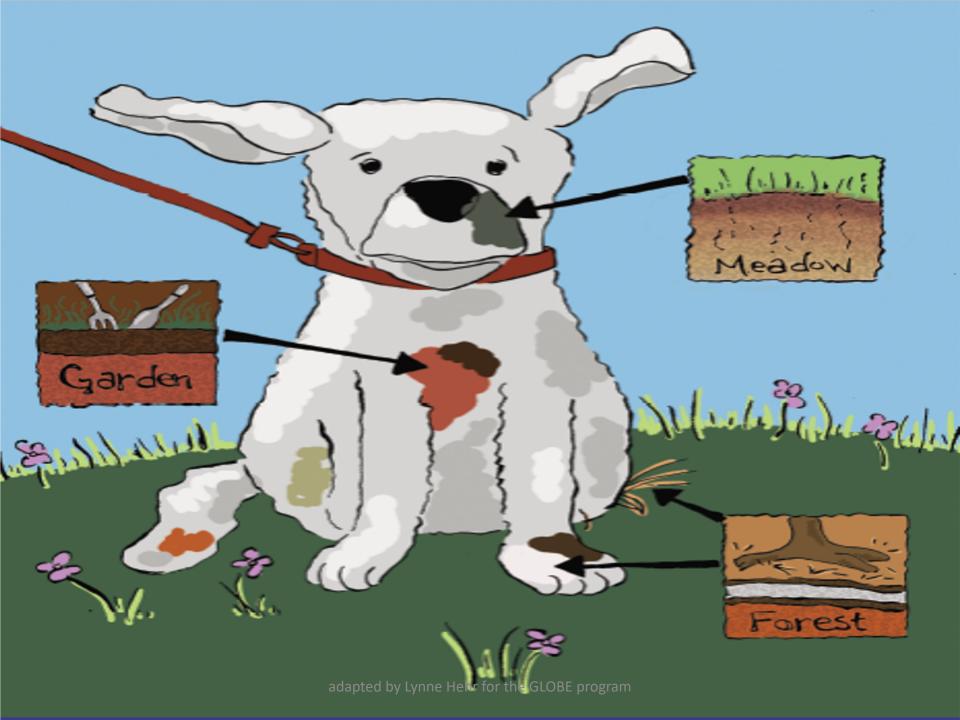
Simon looked at Scoop and started to laugh. "It looks like Scoop collected lots of data, too! He has soil on him from everywhere we have been today."



"Look!" said Dennis. "I can see the sandy white soil from the forest on his front paws, the smooth dark brown soil from the meadow on his nose, and the sticky dark brown and red soil from the garden on his chest!"

Anita added, "Different plants grow in all of these places, too. You can tell that from what we saw near where Scoop dug the holes."

Simon gave Scoop a pat on the head and said, "We are lucky that we had Scoop to help us collect all this data. As we walk back, let's make sure we fill in all of the holes."



"When we started talking about soil at school, I did not realize how cool it is!" exclaimed Simon.

"Scoop, thanks for taking us on this learning adventure because now we know the scoop on soils," Anita said.

Dennis added, "But from now on, I am keeping you on a leash!"

Scoop barked and wagged his tail. He had fun on this soil adventure, too!

