

IQ STEM Tot<sup>®</sup>

**MY  
NANA  
JANI'S  
BEARD**

**AYSHA IMTIAZ  
JAKE HUNTER**



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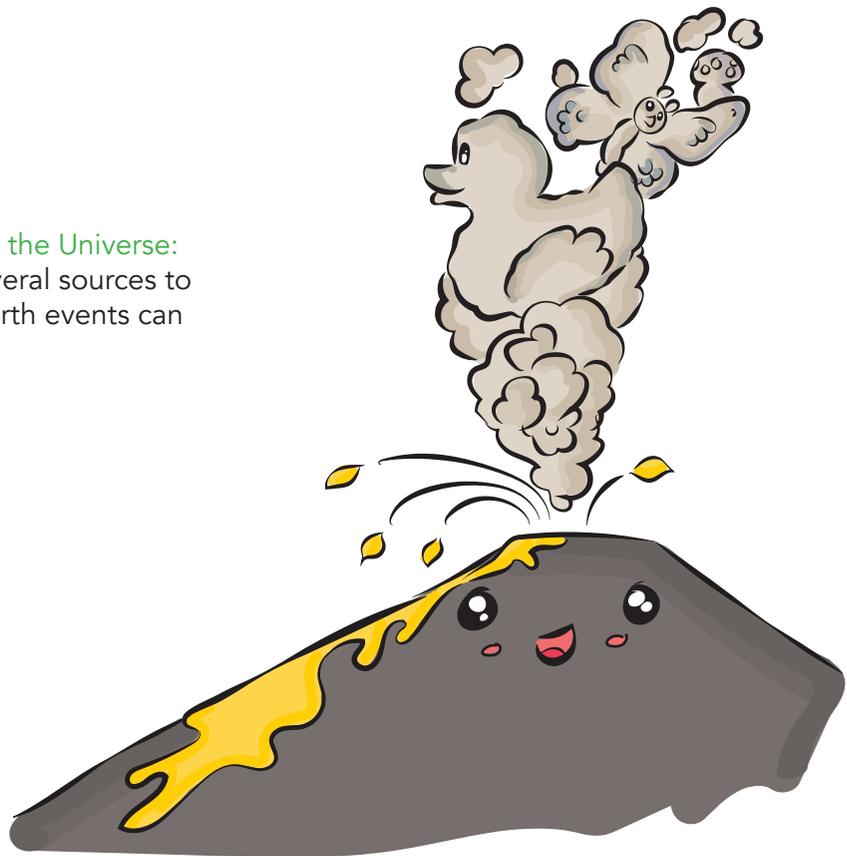
## My Nana Jani's Beard

By Jake Hunter and Aysha Imtiaz



Made with  
recyclable paper  
(Not ceramic coated)

**2-ESS1-1 Earth's Place in the Universe:**  
Use information from several sources to provide evidence that earth events can occur quickly or slowly.



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# MY NANA JANI'S BEARD

*As you read the story, notice how Muntaha helps her grandfather slow soil erosion in their farm field.*

Part 1

## Muntaha's farm

Muntaha lives on a farm with her grandparents. She helps tend to the crops and loves to help take care of the baby goats. Before planting, Grandfather covers piles of seeds with a warm cozy blanket so the seeds won't blow away. Muntaha loves poking her fingers in the soil to plant the seeds. Muntaha wakes up early in the morning to help her grandfather. She calls him Nana Jani (grandfather dearest). They have lived happily and in the past have always had a large enough harvest to share food with their loved ones and neighbors.

Why did grandfather cover the seed piles with a blanket?





## Part 2

### What's wrong, Nana Jani?

As the years passed and Muntaha grew older, she noticed that the baskets at harvest time were getting lighter and lighter. The harvest wasn't a happy celebration anymore. She also noticed that her grandparents seemed worried. They often gave her food to eat but claimed that they weren't hungry. Sometimes, she would see them sitting outside staring at the fields. They looked sad and worried. Her Nana Jani had stopped taking care of himself—he used to get his beard trimmed every weekend at the local barber 'shop' under a tree. But, now, he has a fuzzy beard. It tickles Muntaha when he hugs her.

Why didn't things at the farm seem to be going so well? Why do you think Nana Jani was so worried?





Muntaha wanted to know what was wrong with her Nana Jani.

She asked him, "Why don't you get your beard trimmed anymore?"

Nana Jani's eyes crinkled up in a special smile which he always saved just for her. "The better to tickle you with!" he said. He swooped her up in his arms and swung her round and round.

Between giggles and squeals, Muntaha tried to ask him, "No! Nana Jani! Tell me!"

"Well," grandfather said. "My beard protects my face from the cold wind and the rain of winter just like a baby goat's thick coat of hair."

How does Nana Jani's beard  
protect his face?





Muntaha had more questions than just that.

“Why is our harvest so small this year? Why do you sigh when you look out over our fields? Why are the wheat stalks so short this growing season?”

“Well,” Nana Jani answered. “It looks like you noticed that I have some more work to do.”

Before Muntaha could ask any more questions, Nana Jani rushed to the barn and started to tend to the animals.



### Part 3

## Empty grain sacks

Muntaha was not going to be fooled so easily. She followed him to the barn and rummaged around. She found the burlap sacks they had used a few years ago to pack wheat and grain.

In the past, the sacks were so full of grain that they were stretched tight at the seams. This year the sacks looked sad and deflated, like old balloons days after a party.

Muntaha picked up a sack and marched to her Nana Jani.

“Look at this!” Muntaha held up a sack with barely any grain in it at all. “We used to have such a huge harvest. Now, there is so little. Don’t say it’s not true, because I have proof!”



Nana Jani sighed and took hold of Muntaha's hand. "My dear girl. You see how I am getting older? The land is getting older too. It gets less productive as the years go by. The nutritious topsoil, which is wonderful for growing plants, slowly erodes away."

Nana Jani held Muntaha's hand and together they walked to the field. The field has been plowed after the harvest and all that remained was bare, loose soil. Grandfather picked up some stones from the field.

"Years ago," Grandfather began, "These stones were once buried deep beneath a layer of soft soil. Now, after each harvest, the soil slowly gets washed away by the rain. These rocks are all that is left behind."

Why was wind and rain causing problems for Nana Jani and his field?





## Part 4

### Muntaha's brilliant idea

Muntaha wanted to help. She thought as hard as she could. There was something that Nana Jani had said earlier which gave Muntaha a brilliant idea!

“I know!” Muntaha exclaimed. “What if we left wheat stalks or straw in the field between planting seasons? The dry plant stalks will break the wind. The roots will keep the rain from washing away the top soil. After a harvest, the plant stalks will protect the field, just like your tickly beard protects your face!”

Why did Muntaha suggest leaving the roots and stalks in the field after harvest?





“What an amazing idea!” Nana Jani exclaimed. “I will stop trimming the field after harvest time. The field will have a tickly Nana Jani beard just like me!” he said with a smile.

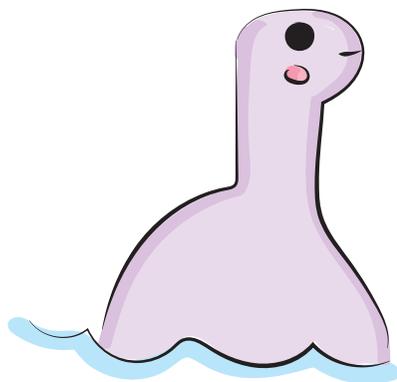
From that day onwards, after the harvest they made sure to leave the the plant stalks and roots behind to protect the ground from winter's harsh winds and strong rains.

They removed rocks from the field and fertilized the soil. Their soil was rich and fertile once again. At harvest time, the sacks of grain were filled and stretched tight. When Nana Jani hugged Muntaha, she was the one tickling him with a beautiful golden wheat stalk!

What did they do to make the field fertile again?







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