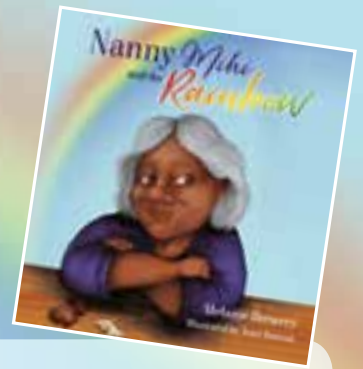


Facts about rainbows



How is a rainbow made?

Although rainbows seem magical, they are easily explained by science.

Rainbows are made when the sun's light passes through the water droplets of rain or mist at just the right angle. The light is bent at many angles as it exits through the sides of the water droplet. This is called refraction. Each angle makes a different colour as each colour has its own special angle, which never changes. This is why rainbows always have the same colours in the same order. Red is always at the top and the colours blend together as they overlap on their way down through the colour spectrum.

The primary colours are red, yellow and blue, if you mix these together you get the in-between colours of orange, green, and purple. We only used six colours in Nanny Mihi's rainbow but most people say there are officially seven colours in the rainbow. Red, orange, yellow, green, blue, indigo and violet. Ancient greek philosophers really liked the number seven so they split the purple into purpley blue (indigo) and bright purple (violet). If you look closely you could probably add even more official colours to a rainbow as there are no definite lines, just a gradual blend of beautiful colours. It's magical when you think about it.

Rainbows in mythology

Many cultures believe that gods control the weather and other forces of nature. The Greeks believed that Aeolus was God of the Sea and the Keeper of the Winds. The Romans had similar stories, for example, Neptune was their God of the Sea.

Māori legends

Ranginui is known as the Sky Father or God of the Sky. You might already know the legend of Ranginui and Papatūānuku being separated by their children to let in the light at the beginning of time. But did you know how cross Tāwhirimātea, the God of Weather, was about this? He was so angry he went to live with his father Ranginui, and plotted revenge on his family. There he produced his children, the wind, the clouds and of course, the storms. He sent them out to punish his family for splitting his parents apart.

One of the brothers he went after with his winds and storms was Tangaroa. Tangaroa is God of the Sea. He is moody, sometimes calm and kind, sharing his children, the fish, with us and giving new life and nourishment, but at other times he's angry and destructive, especially when Tāwhirimātea is whipping him up into enormous waves and turmoil.

What have the disagreements between the gods got to do with rainbows? Not much, except the water droplets produced by the storms refracted the sun and Uenuku got to appear as a rainbow. Rainbows have many names in te Reo Māori. Āniwaniwa, Atua Piko, Kahukura, Haere, and Uenuku are the main ones. Uenuku is the God of Rainbows and is a much lower down god from the other gods, he is a demi-god. He began as a human but he fell in love with a mist maiden. She was married to him for a while but she went back to the sky and Uenuku pined for her and searched for her until he died. Because he had loved her so much, he turned into a rainbow and made her mist into beautiful colours across the sky.

All of these legends explain different things in our natural world. Rainbows have always fascinated people, all over the world. You could do some research and find out what other cultures believe about rainbows — maybe that knowledge will be your pot of gold!