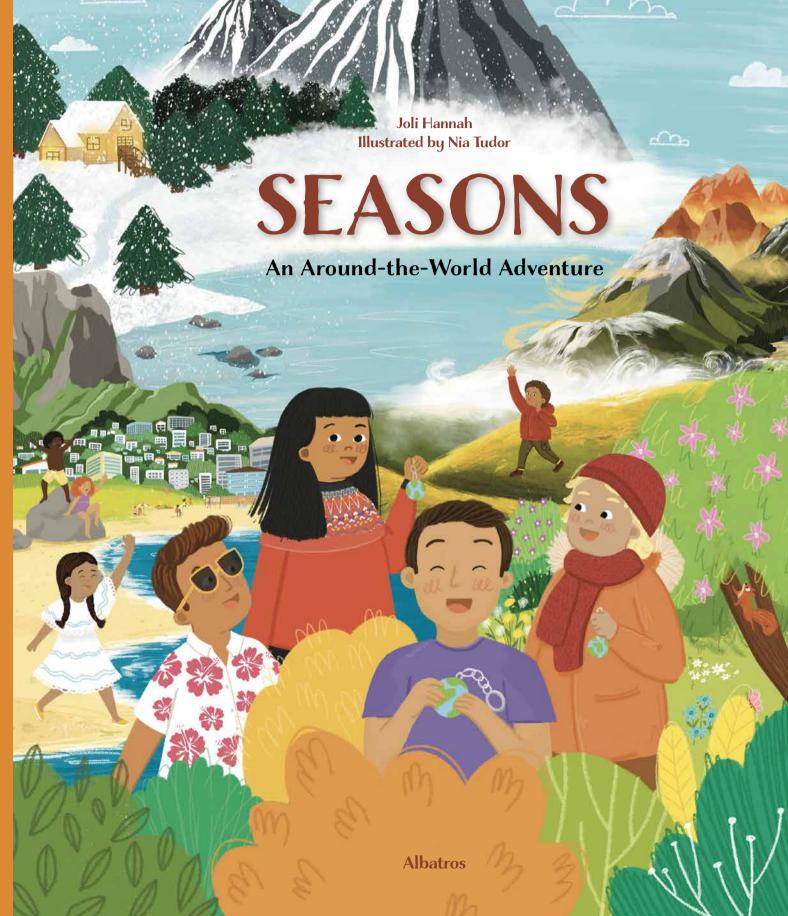
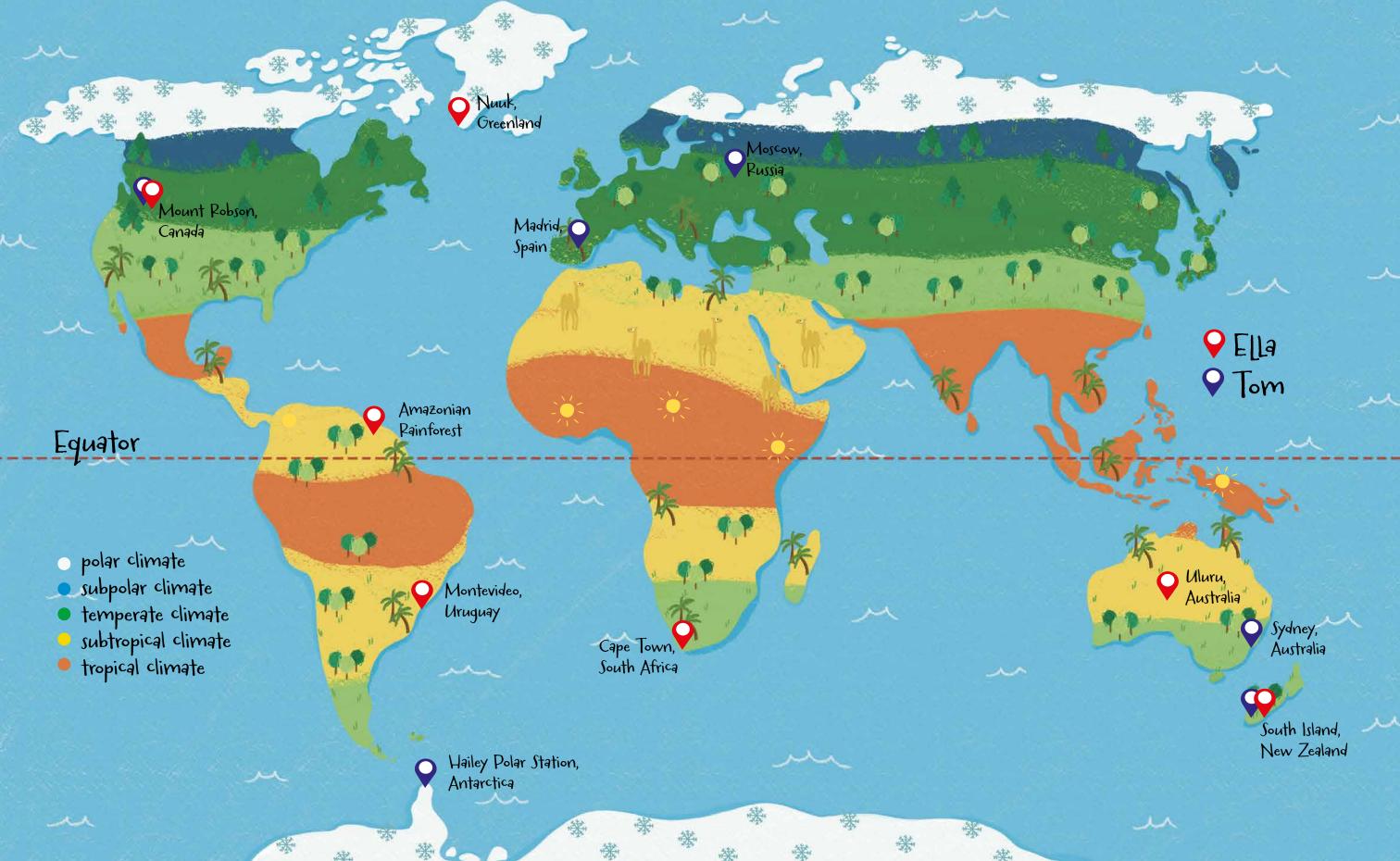
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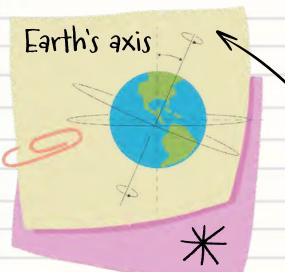




WHY SEASONS CHANGE?

Hemispheres

It's a well known fact that the
Earth is round. Think of it as an
apple you slice right down the middle.
You would be slicing at a point called the
equator. That's where the Earth is closest
to the sun – so it's the warmest there. The
equator divides the Earth into northern and
southern hemispheres.



If we took a massive stick and pierced the Earth with it from above, we could rotate the Earth around it. In a sense, this invisible rod actually does exist – it's called the Earth's "axis" and it's an invisible line through the Earth around which our planet rotates, like a spinning top. The Earth's rotation alternates between day and night. It takes 24 hours for one full rotation on its axis.

How the sun's rays reach the planet?

Because this axis is tilted...
our planet, too, is tilted.
Notice how the sun hits the
Earth and heats it up. The
part of Earth that is closer
to the sun is hotter so it's
summer there. The farther
half is cold so it's winter
there.





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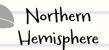
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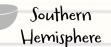
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The Earth and the Sun

Because the Earth is tilted while it orbits the sun, it creates alternating seasons (spring, summer, autumn, and winter) in different parts of the Earth. One trip around the sun takes 1 year.









In one part of the world, when it's summertime and the sun shines brightly, on the other side, it's winter, with snow and cold days. This is because the Earth has different seasons in different places at the same time.

The Four Seasons

Climate zones



There are some places on our planet where the change is minimal and the change of seasons does not occur. That's because the variations in temperature are so small that they have little effect on weather patterns. These areas are called the polar and tropical zones. In other parts of the Earth, the seasons change, and people have spring, summer, autumn, and winter. These areas are called temperate zones.







Greenland

An Arctic country with harsh conditions for all forms of life.
Only very hardy animals and plants live here. It is the largest island on the entire globe.

Average Temperature $32^{\rm o}\,{
m F}$

Average Rainfall
65 inches

Northern Hemisphere

polar zone

Due to the long winter, only poor vegetation and low plants grow here.



No trees grow in Greenland, so wood is very rare.



Inuit

The native population is the Polar Inuit. They wear fur clothing to stay warm.

People often use dog sleds or snowshoes to travel in the snow.





The local sea is home to numerous whales.



Whales

Luminous effects in the Earth's ionosphere (a layer of the atmosphere) caused by flares on the Sun, the Aurora Borealis is only visible near the poles.



Average Temperature $80^{\rm o}$ F

Average Rainfall
15.5 inches

Southern Hemisphere

Australia

The oldest continent on the planet, with a rich array of differences and unique characteristics. Many species of plants and animals here are endemic, meaning they are found in only one place on the planet.



subtropical zone



Uluru - the dominant

feature of the Ayers

Rock Mountains of

the red center of the

continent, inhabited

Platypus

by Aborigines.

The koala feeds
exclusively on the
leaves of Eucalyptus
trees, which is also
used in nasal drops
for humans.

Eukalyptus



Uluru Kangaroos



A mammal that lays eggs? Common in Australia, impossible in other places.



While the northern hemisphere celebrates Christmas in winter, Australia celebrates it in summer.









SEASONS

An Around-the-World Adventure

Come embark on a global journey with Ella and Tom! Join them as they explore enchanting destinations, guided by their mystical keychain. Discover captivating stories and facts about weather changes in different lands. Ignite your child's curiosity as they learn about climate zones worldwide.











TARGET

SOCIAL

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VOCABULARY

LEARNING

Fuel your child's wanderlust and collect all four titles in this extraordinary series:









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