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Climate change

- You have decided to go on a picnic tomorrow.
- What would you do to make your picnic dream come true?
- How do you decide where to go?
- Do you check the weather?



Weather has a huge impact on our daily plans.

That's why the first thing we do when making our plans is usually to look at the weather.

So, what's the weather?

Hava durumu nedir?



Sunny, rainy, windy...

Weather is exactly what we see when we look out the window right now.

In any day when we open the window, you can see a sunny day, you can see a rainy day, you can see a windy day, or you can see a foggy day.

It can be hot or cool outside. This is a situation that changes from one day to the next, sometimes even within hours.

Weather is all of these sunny, rainy, windy, foggy, snowy and stormy conditions.

What is the climate?

Let's say you didn't check the weather the day before, what is your expectation of the weather outside before you open the curtain?

If you are in the summer, you expect the weather to be hot and without precipitation.

If you are in the winter, you expect light rainy and cool or snowy and cold weather depending on where you are.

How do you know this? Because it has been like this for years. Every summer and every winter for years, when you open the curtain every morning, you have witnessed a sunny and hot or rainy/snowy and cold day.

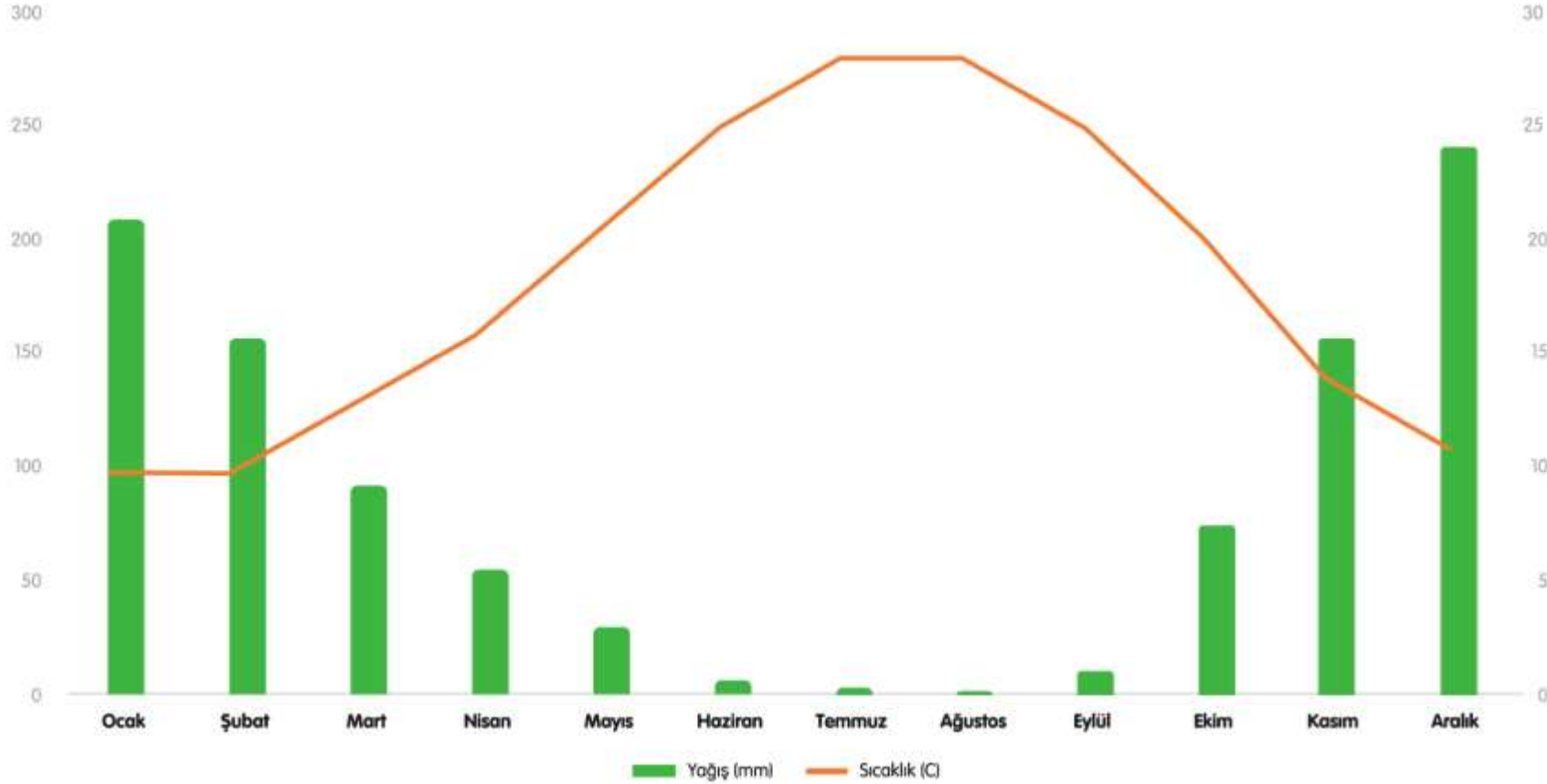
Therefore, when you open the curtain, what you see is the weather.

Climate refers to the average temperature and amount of precipitation that we observe in a place over long periods of time.



İklim nedir?

Akdeniz iklimi, Antalya



E.g; this graph is a typical Mediterranean climate graph.

It has been prepared by obtaining the averages of precipitation and temperatures seen in the Mediterranean Region for many years.

Winters are warm and rainy, summers are hot and dry.

Türkiye İklimi

Akdeniz iklimi



Türkiye İklimi



Karasal İklim

yazlar sıcak ve kurak, kışlar soğuk ve yağışlı



Türkiye İklimi

Karadeniz İklimi

Her mevsim yağışlı ve ılık



Mediterranean climate, warm and rainy in winters and hot and dry in summers, in the Mediterranean Region and Aegean Region coasts of Türkiye;

In the eastern and inner parts (Central Anatolia, Eastern and Southern Anatolia Regions), the continental climate is hot and dry in summer and cold and rainy in winter;

On the other hand, all Black Sea coasts have a warm and rainy Black Sea climate in all seasons.

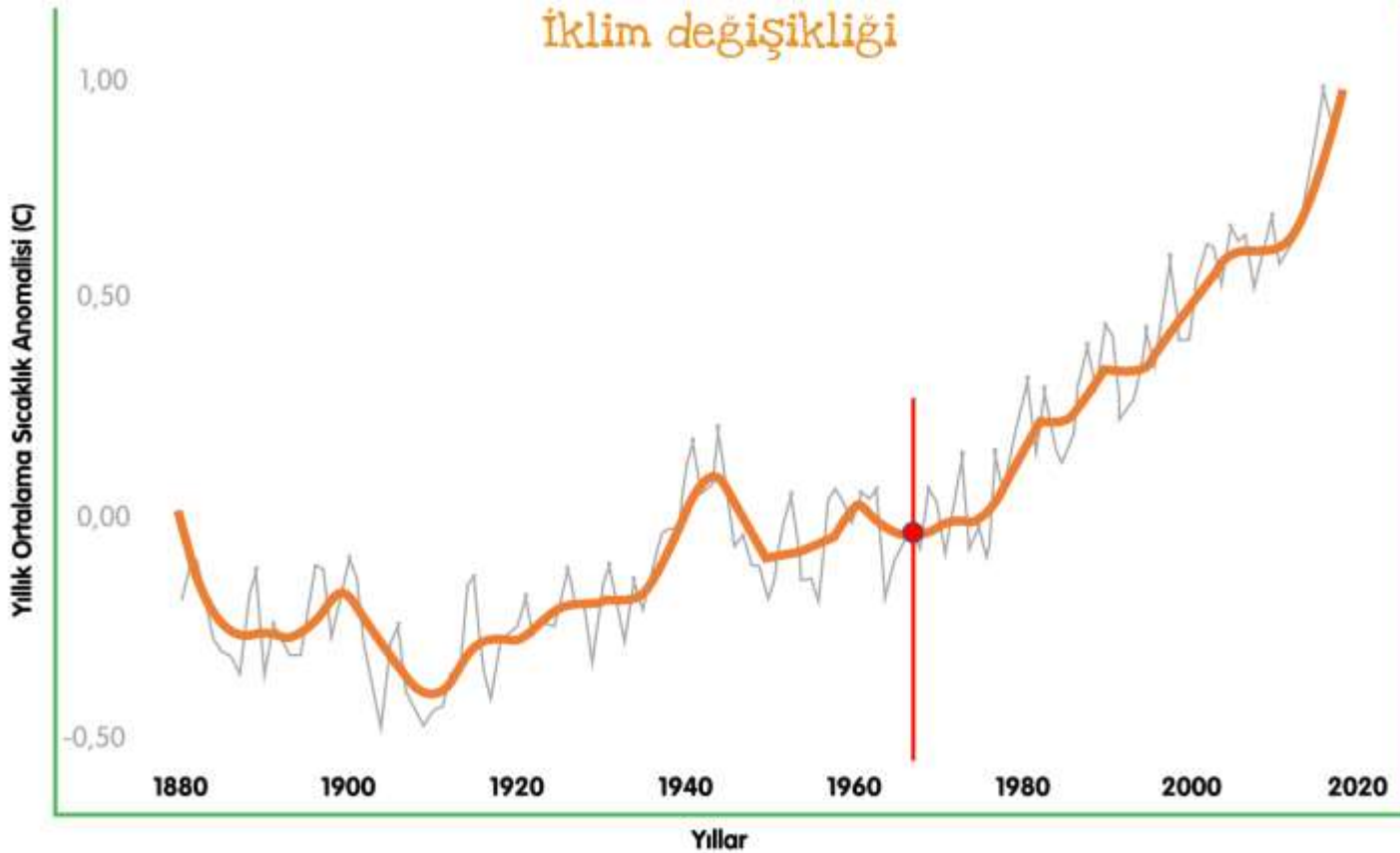


With the climate change, we have started to see that in places where the Mediterranean climate is observed in our country, summers are very hot and drier, and winter is less rainy. In places where the continental climate is observed, the snowfall seen in winter has started to be replaced by rain. In the Black Sea climate, precipitation decreases gradually, especially in summer, and on rainy days, precipitation is heavy; We see that it rains heavily enough to cause floods and overflows.

Climate change is long-term changes in the climate that you observe differently from the general definition of climate.

E.g; You live in a place where the Mediterranean climate is seen, you wake up on a winter morning, your expectation is that the weather will be warm and rainy. However, the weather is warm and without precipitation, the next day is still warm and without precipitation, the next day is the same.

All winter, whenever we looked outside, we did not see much rain, the weather was always warmer than we knew and expected. Similarly, the heat and dry times in the summer increased very much, the rains suddenly started to come in the form of showers and we started to see tornadoes. These changes that we observe in the general structure of the climate are called climate change.



Scientific evidence of climate change is hidden in the long-term averages of temperature and precipitation that make up the climate. Unlike the weather, the climate changes gradually. The long-term average data of the years are put side by side, revealing the change we have experienced mathematically.

E.g; This graph shows the average temperature values of the Earth recorded for about 140 years. Earth's average temperature has risen rapidly since 1880. Look at the steep rise of the chart after the 1960s.

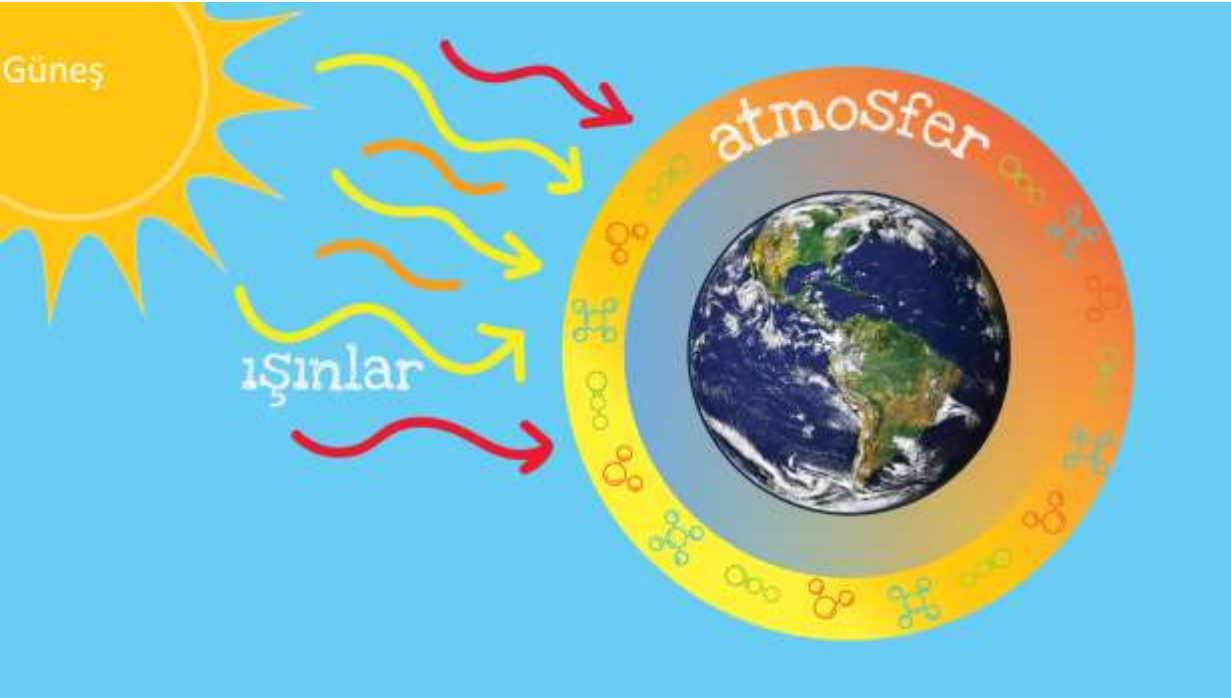
Climate change shows itself most clearly as an increase in global temperatures, however, because it also causes minor cooling in some parts of the world, the change experienced is called climate change rather than global warming. However, this cooling is experienced in very small regions, it is the increase in global temperature experienced all over the world.



So why and how does the climate change?

Unlike other planets, our planet has many features that make it possible for living creatures to live on it. The first of these is that it has an atmosphere layer that surrounds our planet with a thin layer of air. If the Earth did not have an atmosphere, it would be a rock mass without life. The atmosphere provides gases such as carbon, nitrogen and oxygen, which are vital elements for all living creatures, and the continuity of the temperature needed by all living creatures.

Most of the atmosphere layer consists of nitrogen and oxygen gas. However, there are other gases in the atmosphere called greenhouse gases that trap heat from the Sun.



The reason why it is called the greenhouse effect is that in greenhouses where agricultural production is carried out, the heat from the sun is prevented from escaping by staying in the environment, and thus production can be made even in winter months. A similar situation in the greenhouse is experienced in this case.

Under normal conditions, a certain amount of energy comes from the Sun to the Earth. If there was no atmosphere, this energy would hit the Earth and return to the vacuum of space, and the Earth would be a much colder place than it should be. Scientists say that without the atmosphere, the average temperature of the Earth would be -15 C.

Because there is an atmosphere, this is how it is: Some of the energy from the Sun is captured by the atmosphere, which surrounds the Earth like a blanket, before it hits the Earth and escapes into space, and the Earth's temperature reaches today's average temperature of 16 C.

The greenhouse effect is called the greenhouse effect, when the atmosphere keeps some of the energy coming from the Sun and brings the temperature of the Earth to a suitable temperature for living things.

Sera gazları



karbondioksit



metan



diazotmonoksit

Basically, the greenhouse gases in the atmosphere are carbon dioxide, methane, nitrous oxide and water vapor.

However, the greenhouse gases that we observe large increases in the amount of in the atmosphere as a result of human activities are carbon dioxide, methane and nitrous oxide gases.

Sera gazları: karbondioksit



The most important greenhouse gas in the atmosphere is carbon dioxide gas. This graph you see shows the amount of carbon dioxide in the atmosphere over the last 400,000 years. When the amount of carbon dioxide increased, the Earth entered hot periods, and when the amount of carbon dioxide decreased, ice ages began. The maximum amount of carbon dioxide gas in the atmosphere has remained the same for thousands of years, 280 ppm (parts per million) until the 1800s. Since the 1800s, as humanity, we have found a way to obtain energy by using underground oil, coal and natural gas, and from this point on, these carbon stores that had been underground for millions of years were quickly burned and started to mix with the atmosphere as carbon dioxide gas.



Another greenhouse gas in the atmosphere is methane. Methane; It mixes into the atmosphere due to natural gas transmission lines, degradation of waste stored in landfills, coal mining activities, digestion of cattle and small cattle, and manure.



Finally, nitrous oxide occurs due to artificial fertilizers thrown into the soil during agricultural production. The more fertilizer is thrown into the soil, the more nitrogen monoxide gas is emitted from the soil. By purchasing foods that are not produced by natural methods, which are often thrown away, we cause unnecessary use of fertilizers.

İklim deęişikliğinin etkileri



Sıcak hava dalgalarının sıklığı,
buharlaşıma ve kuraklık artıyor

A heat wave means that the temperature in a particular region remains well above the average temperature for a long time. With the increase in the global average temperature, the frequency of heat waves in many parts of the world and in our country, especially in summer, has increased. Scientists predict that we will be exposed to more heat waves as the Earth continues to warm.

With the increase in the temperature of the world, the time between evaporation and two precipitation increases, which scientists call drought due to the long period between two precipitations. Turkey is one of the countries where drought problems are frequently experienced.

İklim deęişikliğinin etkileri

- Baraj doluluk oranları düşüyor,
- Doğal alanlar kuruyor,
- Tarımsal verim azalıyor,
- Orman yangınları artıyor,



With increasing droughts, dam occupancy rates decrease. Since the rainfall is not enough, many crops in the field dry up before they can grow, and the yield decreases. Wetlands, which are home to many creatures, disappears due to droughts. With droughts, forest fires are also increasing rapidly. Unfortunately, severe droughts make forests particularly vulnerable to fires.

İklim deęişikliğinin etkileri



Increasing temperatures; It causes more water to evaporate from the oceans, lakes and seas. This time, when the precipitation, which we have been waiting for a long time, begins, it starts to carry more water in quantity. This causes us to be exposed to frequent floods and floods.

İklim deęişikliğinin etkileri

Toprak kaymaları artıyor.



Sudden rains do not only cause overflow and floods, but also landslides increase with sudden and heavy rains.

İklim deęişikliğinin etkileri

Fırtınalar
ve
hortumlar artıyor.

Climate change also triggers sudden weather changes. Natural disasters such as tornadoes and hurricanes began to appear even in places never seen before.



İklim deęişikliğinin etkileri



This melting of glaciers is raising the world's sea level. The rising sea level causes the settlements, especially on the seaside, to be flooded.

As you can see, how the temperature increase of 1C has affected our lives. Experts emphasize that the increase in temperatures is unstoppable if it continues like this.

So, are we ready for such a change?



İklim deęiřiklięi
yařam tarzımızdan
kaynaklanıyor

Climate change, which we live with today and whose effects we will continue to experience even more severely, has a strong relationship with our way of life. We can reduce the impact of climate change by changing our daily living habits.

We should not consume more than we need. Latest model phones, new clothes, food that goes to waste are products that come from far away countries by traveling thousands of miles. It goes a long way until all the products arrive at us.

We must turn off unnecessary electric vehicles.

We should use the air conditioner in saving mode.

In order to reduce the amount of fuel we use for heating, we may prefer to wear sweaters instead of warming the house enough to wear a T-shirt in winter, that is, to dress according to the season.

Paying attention to energy efficiency while purchasing electrical appliances reduces our fossil fuel consumption as it reduces our energy consumption.

It should be our basic way of life to consume as much as we need in order to prevent greenhouse gas production and to protect nature.

If we buy the products by paying attention to the fact that they are local products, the products we buy will reach us in much shorter ways and our impact on the climate will be reduced.

If we collect our waste separately, we will take an important step towards recycling. By recycling our waste, we can reduce the production pressure on nature.



Frequent trips to distant places by plane, Using private vehicles instead of public transport cause us to release a large amount of greenhouse gases into the atmosphere.

We may prefer to use bicycles for transportation instead of motor vehicles that harm the climate by using fuels such as oil. For transportation, we can prefer public transportation instead of individual vehicles, and we can warn our elders to take action on this issue.

İklim deęiřiklięi
yařam tarzımızdan
kaynaklanıyor



One of the most important steps to reduce the effects of climate change is to protect and develop natural areas. For this, get to know the nature in which you live and consider its needs.
E.g; Plant saplings for the protection of forests, join the planting movements, be the pioneer of such a movement.

Goodbye

HOSÇA KALIN

