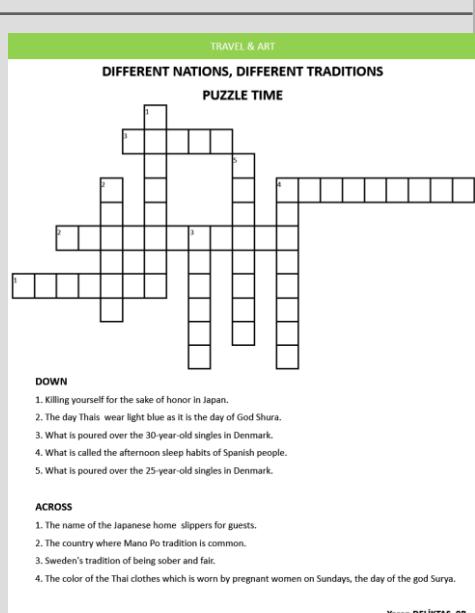
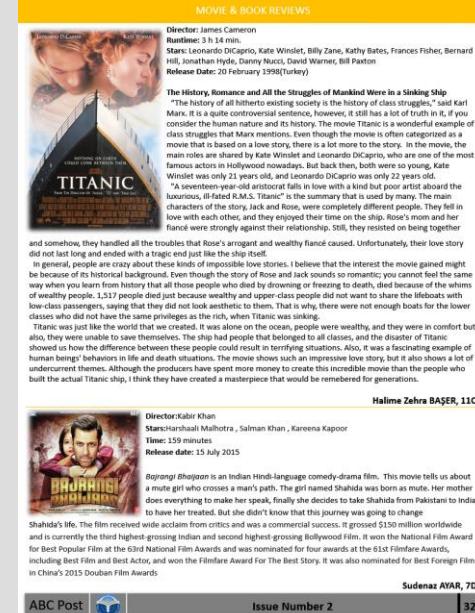
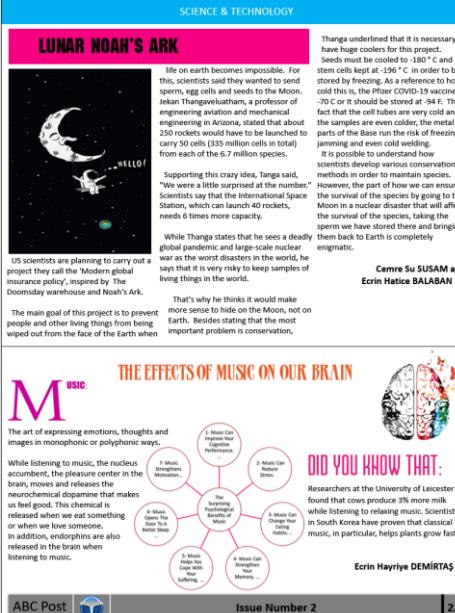
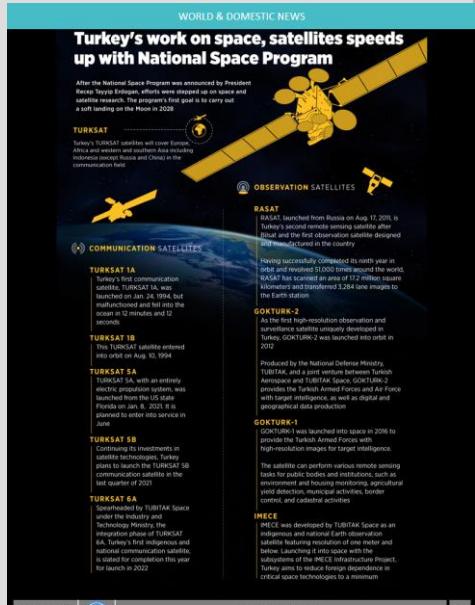
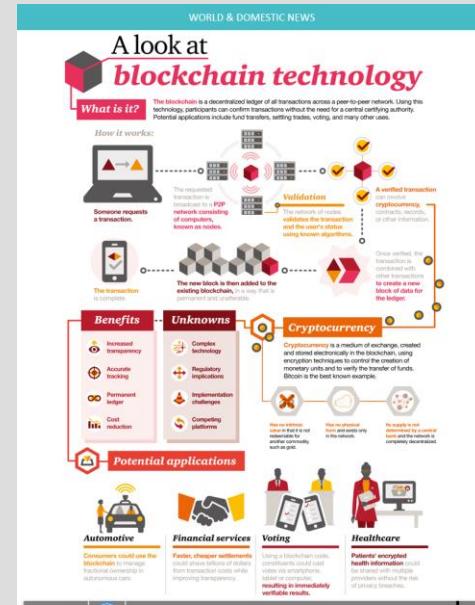
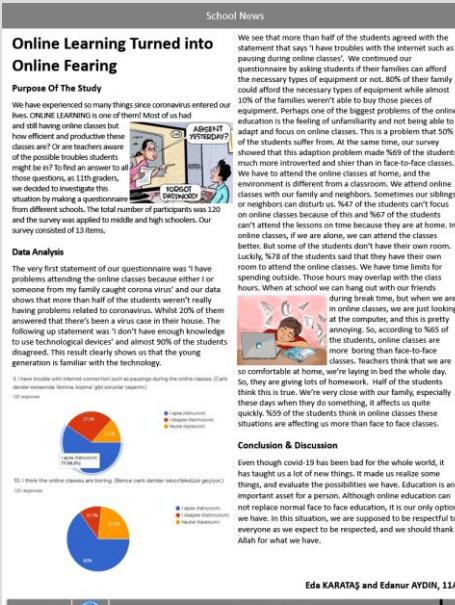


Şehit Adil Büyükcengiz AİHL Science and Social Sciences Project School, Pendik İSTANBUL



0216 702 10 32-33





Believe in Yourself and Just Speak English

“Believe in Yourself and Just Speak English” is an English-speaking project carried out by the Istanbul Provincial Directorate of National Education .It is a 1-minute speaking competition, in chosen subjects for 5th,6th, and 7th grader students all around İstanbul. As Şehit Adil Büyükcengiz, we got big success both in participation and being able to be finalists of Pendik and İstanbul almost every month. In the first month, it was a great honor to be the finalist of 5th graders in Pendik and İstanbul for me. It was a big opportunity to represent my school by speaking English with the TRT World Sports News Reporter Samantha Johnson. This competition is being held since November and here is the finalists' list. They made a huge effort and did a very good job with the help of our English Teachers and their families. Congratulations to all.



**İSTANBUL İL
MİLLÎ EĞİTİM
MÜDÜRLÜĞÜ**



NOVEMBER Finalists:

5TH GRADERS:

(5A) Serem Nas Şalcı with her video about “My daily routines”

6TH GRADERS:

(6C) Gülsüm Sena Çelik with her video about “Healthy foods and diet”

7TH GRADERS:

(7D) Sudenaz Ayar with her video about “Comparing life during pandemic to normal life”

“Talk about an endangered animal”

-Level B

6TH GRADERS:

(6B) Refia Nefisenur Kocabas with her video about “What kind of weather do you like?”

FEBRUARY Finalists:

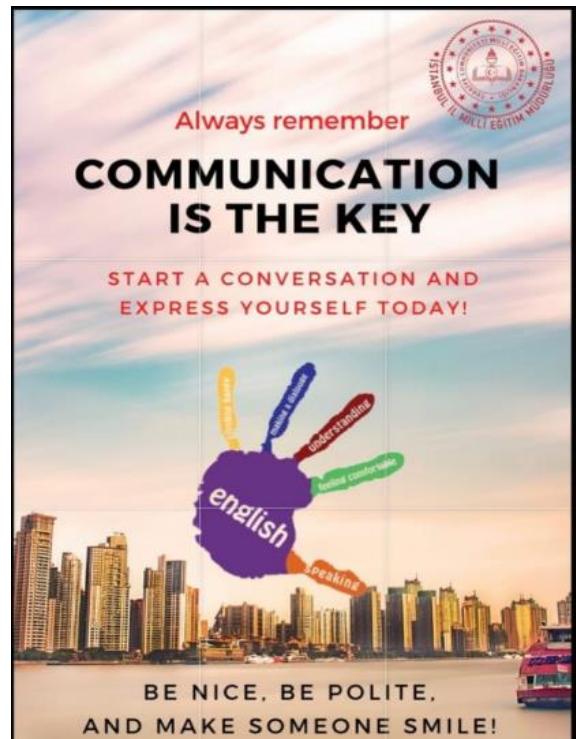
5TH GRADERS:

(5D) Reyyan Yediyıldız with her video about “Tell us about your family members' favourite hobby(ies)”

MARCH Finalists:

5TH GRADERS:

(5B) Elif Karaduman and (5D) Hanne Çetin with their videos about “Imagine that you are a doctor. How do you give advices for the illnesses? What should we do for a healthy life?”



DECEMBER Finalists:

5TH GRADERS:

(5A) Zayna Hümeyra Başkan and (5D) Ecrin Us with their videos about “Do you like your neighbourhood? Can you describe it?”

6TH GRADERS:

(6B) Ceren Eda Türktil and (6D) Fatma Zümra Altın with their videos about “Which places do you like in İstanbul? Compare and Contrast”

7TH GRADERS:

(7D) Sudenaz Ayar with her video about “Talk about a famous Turkish character in the past”

JANUARY Finalists:

-Level A

5TH GRADERS:

(5B) Gülhüma Reyyan Çelik and (5B) Ecrin Çakıcı with their videos about “How do your family members plan their day?”

6TH GRADERS:

(6B) Tuana Kalkan and (6B) Ecrin Yavuz with their videos about “What kind of weather do you like?”

7TH GRADERS:

(7D) Elif Nur Kurt with her video about



Serem Nas ŞALCI, 5A

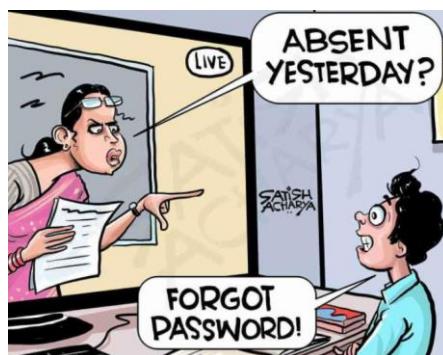




Online Learning Turned into Online Fearing

Purpose Of The Study

We have experienced so many things since coronavirus entered our lives. ONLINE LEARNING is one of them! Most of us had and are still having online classes but how efficient and productive are these classes? Or are teachers aware of the possible troubles students might be in? To find an answer to all those questions, as 11th graders, we decided to investigate this situation by making a questionnaire and sharing this with students from different schools. The total number of participants was 120 and the survey was carried out to middle and high schoolers. There were 13 items in our questionnaire.

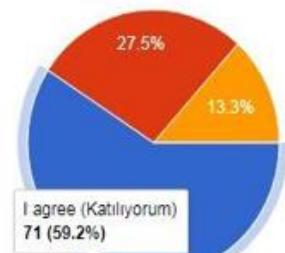


Data Analysis

The very first statement of our questionnaire was 'I have problems attending the online classes because either I or someone from my family caught corona virus' and our data shows that more than half of the students weren't really having problems related to coronavirus. Whilst 20% of them answered that there's been a virus case in their house. The following up statement was 'I don't have enough knowledge to use technological devices' and almost 90% of the students disagreed. This result clearly shows us that the young generation is familiar with the technology.

3. I have trouble with internet connection such as pausings during the online classes. (Canlı dersler esnasında 'donma, kopma' gibi sorunlar yaşarım.)

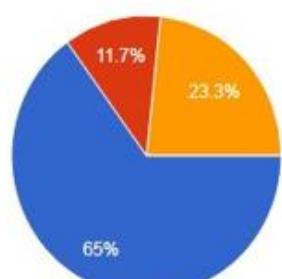
120 responses



● I agree (Katılıyorum)
● I disagree (Katılmıyorum)
● Neutral (Kararsızım)

10. I think the online classes are boring. (Bence canlı dersler sıkıcı/tekdüze geçiyor.)

120 responses



● I agree (Katılıyorum)
● I disagree (Katılmıyorum)
● Neutral (Kararsızım)

We see that more than half of the students agreed with the statement that says 'I have troubles with the internet such as pausing during online classes'. We continued our questionnaire by asking students if their families can afford the necessary types of equipment or not. 80% of their family could afford the necessary types of equipment while almost 10% of the families weren't able to buy those pieces of equipment. Perhaps one of the biggest problems of the online education is the feeling of unfamiliarity and not being able to adapt and focus on online classes. This is a problem that 50% of the students suffer from. At the same time, our survey showed that this adaption problem made 69% of the students much more introverted and shier than in face-to-face classes. We have to attend the online classes at home, and the environment is different from a classroom. We attend online classes with our family and neighbors. Sometimes our siblings or neighbors can disturb us. 47% of the students can't focus on online classes because of this and 67% of the students can't attend the lessons on time because they are at home. In online classes, if we are alone, we can attend the classes better. But some of the students don't have their own room. Luckily, 78% of the students said that they have their own room to attend the online classes. We have time limits for spending outside. Those hours may overlap with the class hours. When at school we can hang out with our friends



during break time, but when we are in online classes, we are just looking at the computer, and this is pretty annoying. So, according to 65% of the students, online classes are more boring than face-to-face classes. Teachers think that we are so comfortable at home, we're laying in bed the whole day. So, they are giving lots of homework. Half of the students think this is true. We're very close with our family, especially these days when they do something, it affects us quite quickly. 59% of the students think in online classes these situations are affecting us more than face-to-face classes.

Conclusion & Discussion

Even though covid-19 has been bad for the whole world, it has taught us a lot of new things. It made us realize some things, and evaluate the possibilities we have. Education is an important asset for a person. Although online education can not replace normal face-to-face education, it is our only option we have. In this situation, we are supposed to be respectful to everyone as we expect to be respected, and we should thank Allah for what we have.

Eda KARATAŞ and Edanur AYDIN, 11A

14 FACTS ABOUT AND DIS

11th grade students' research on online learning conditions revealed considerable facts about students' experiences during Covid-19 global pandemic.

128 students were asked if they have experienced any health problems since online learning started.

According to the results:

90% of the students have some health problems like headache, backache etc. because of online classes.



by Senanur Sarıkaya, Züleyha Ulaş, Edanur Şahin and Yaren Çelik



by Eda Karataş, Dilara Çetin, R.Hilal Savaş, Nursima Bayhan and Edanur Aydın

120 students were asked whether they have any disturbance resulting from conditions at home.

According to the results:

50% of the students can't focus on online lessons because of conditions at home like siblings, cleaning, somebody knocking the door etc.



by Şeymanur Çelik, Reyyan Zeynep Akyıldız and Safiye Keskin



by Aslıhan Eraslan, Gökçe Amcaoğlu, Münevver B. Şafak, Sueda Küçüktunç

104 students were asked whether they have had trouble sleeping because of global pandemic and distance education. According to the results: 65% of the students have trouble sleeping.



by Aslıhan Eraslan, Gökçe Amcaoğlu, Münevver B. Şafak, Sueda Küçüktunç



by Senanur Çiçek, Hilal Doğan, Şevval Bilgin and Fatımanur Kantar

86 students were asked if they feel more anxious in an online exam than a regular exam.

According to the results:

70% of the students feel more anxious in an online exam than a regular exam.



by Fatıma Esma Çakıcı, Azra Sude Kaya, Sare Karakoç

67 students were asked whether they are motivated for online classes or not. According to the results: 80% of the students have motivation problems when it comes to joining online classes.

COVID-19 DISTANCE EDUCATION



61 students were asked whether they can focus on the whole online class. According to the results: Even though they are more focused and interested at the beginning, %75 of the students get distracted after a while.

by Ebrar Sönmez, Afife Azra Çakiroğlu and Betül Kekeç

67 students were asked whether they are happy with the online class hours or not.

According to the results:

90% of the students prefer to have less online classes.



by Fatima Esma Çakıcı, Azra Sude Kaya, Sare Karakoç



25 students were asked whether the assignments at EBA help improve their learning. According to the results: 70% of the students think that the assignments on EBA do not contribute to their learning.

by İrem Ünlüer, Sudenaz Özdil and Ayşenur Kara

61 students were asked whether they like joining online classes.

According to the results:

56% of the students do not like joining online classes.



by Ebrar Sönmez, Afife Azra Çakiroğlu and Betül Kekeç



120 students were asked whether they are engaged during online classes or not. According to the results: 70% of the students are quieter and more introverted in online classes than face-to-face classes.

by Eda Karataş, Dilara Çetin, R.Hilal Savaş, Nursima Bayhan and Edanur Aydın

38 students were asked whether their relations with their friends have been affected during distance learning.

According to the results:

60% of the students stated that their relations with their friends have decreased.



By Güzide Arslan, Buse Demir, Rümeysa Bayındır and Beyzanur Oğuz



65 students were asked whether they pay attention to something else like social media, texting, Tv etc. during online classes . According to the results: 80% of the students stay away from any distractions.

by Azra Yılmaz, Zeynep Akın, Sabiha Arslan and Betül Sinem Seçen

The data analysis indicates that most of the students benefit more from regular learning (face-to-face) rather than online learning. We should keep in mind the 14 rules to avoid COVID-19 and let students start face-to-face learning. Please keep your social distance, wear your mask and pay attention to your personal hygiene.



→ "Me as an Imam Hatip Highschool student"



In Sehit Adil Buyukcengiz High school, another day started with a competition announcement. The name of competition is "Me as an Imam Hatip high school student". The aim of competition is learn Sehit Adil Buyukcengiz's students' opinions about being an Imam Hatip high school student. Why do they love their school? Why they don't? What are the things they don't like? What is the reason they are here? Because of their family? Or they wanted to come? The competition was for revealing the personal experiences of students. "Riyazü's Salihin" volumes were the surprise prize!



→ WHO'S THE WINNER?



The winner is Şevval BİLĞİN from 11th grades. Congratulations Şevval! The principal of Sehit Adil Buyukcengiz Highschool, Abdülkadir Işık gave her prizes according to covid-19 precautions. Every single person who has participated in this competition is very brave. Congratulations girls! And thanks our school for giving us a chance to explain our feelings!

I thought that in a year I would be able to read the verses quickly, like my grandfather and aunt, understand well and teach them. Writing pages of "Alif be" was quite contrary to my dreams. Of course, Arabic wasn't the only lesson that was new to me. We also had a lesson called the "Life of the Prophet Muhammad". Honestly I didn't think very positively about this course in the first year, because I felt it kept repeating the same things. I didn't expect the Prophet's life story to change every year, of course. But I thought that we praise the prophet so much, and the only thing that stands out about him is that he plays games with children? They keep saying this because of he doesn't do anything else? Deep down, I likened myself to those who accepted the religion of their ancestors. My parents were Muslim and I was their daughter imitating what they were doing. The next year, our new teacher gave us an assignment. Everyone needed to choose a religion and tell about it in class in detail, which would be considered our semester grade. It was a great and unique opportunity for me. I was hesitant to do research at the time because I didn't trust the information on the internet or other sources I found. From the sources suggested by our teacher, each of my friends detailed a religion during a lesson. Our teacher corrected the wrong places, and we learned together about things that our teacher didn't know. I listened to them all very well, and that pleased my teacher, because the rest of the class found these presentations very boring. From Taoism to Christianity, each religion was told one by one. There were parts of some religions that made sense, but I had to learn Islam literally so that my decision would be healthy. The next semester, the same teacher gave us some names for our research. So I chose "Malcolm X" which I thought was the

EUREKA!



Probably you've heard of Archimedes's "Eureka." It tells of Archimedes discovering what is in front of his eyes every day. In this article, I will tell you what I have discovered every day in front of my eyes thanks to the school where I attend. I hope it helps you discover something, too. Since I was little, I had been going to the Qur'an courses, so I knew the Arabic alphabet a little bit before attending to an Imam Hatip high school. That's why I wanted to go to an Imam hatip school so much. I loved the Arabic alphabet. As kids, we liked to make letters look like something. For example, the letter "ha" is an uncle with a big belly, the letter "alif" is a skinny old man, and the letter "fe" is my cousin, who didn't like movement ... The first year I started the school Arabic lessons didn't go the way I wanted.



coolest one. When I researched Malcolm X's story, he impressed me so much that I looked at every source I could find, and kept notes. When I weighed Islam and other religions in my head by what Malcolm saw as I was preparing pages and pages of writing, a voice in my heart said, "Eureka," you found it. You found the right one. Then I began to feel in my heart what I heard every day, the verses and hadiths were no longer random words that I heard, they were what I felt. Of course, there are some things about this story that can't be called good. For example, I should have made this discovery in the lesson of the life of the Prophet Muhammad. The prominent aspect of religion should be the thoughts represented by the prophet.

We memorized a few dates and they said, "he also loved playing with kids". I couldn't understand what made him special as a prophet. A figure of a man playing games may introduce him well to children, but it is not enough to love him more or understand the religion he introduces. I don't mean to teach middle school kids lessons like Akaid. I just think they should be given more solid reasons to promote this religion. I started to make sense of Islam thanks to my teachers in Imam Hatip. In this context, the place of teachers of my Imam Hatip school is different for me. Imam Hatip helped me understand and feel why Islam is the true religion. I will always feel lucky in terms of both the good and the deficiencies for what Imam Hatip school gave me.

Şevval BİLĞİN, 11B

TWO INSPIRING ONLINE SEMINAR GUESTS



İclal DAĞCI ;16 years old Polyglot

İclal Dağcı, Kartal Anatolian Imam Hatip High School 11grader student, who learned five foreign languages by herself at the age of fifteen, attended our online seminar serial as our guest. İclal can speak French, English, Arabic, Spanish, and Italian fluently. İclal who sincerely shared with us her knowledge and experience in many subjects such as "Why cannot we learn foreign languages?", "What methods we can use to improve our language speaking skills?", "What resources can we use while learning different languages?". She gave handy pieces of advice to our curious students. Her efforts and achievements have widened our horizon.

Prof. Dr.Sinan CANAN; Neuro-Scientist

Üsküdar University faculty member Prof. Dr.Sinan CANAN was one of our online seminars' guests. Our students, parents, and teachers had the chance to listen to his education-oriented future perspective via Zoom meeting. Sinan Canan drew new horizons for us with his unique approach as well as with his knowledge and experiences.

He emphasized that after the period we live in, humanity will continue its walk with a different road map, and pointed that we should decide now on whether we will be active or passive in this matter and we should be equipped accordingly. We would like to those who contributed to the program for this great opportunity.



Büsra AKINCI, 9A



SOCIAL RESPONSIBILITY IS OUR THING

Şehit Adil Büyükcengiz AİHL keeps getting students ready for real-life with social responsibility activities in addition to the academic works. For us, it is very important to care for the people who are in need, not only in Türkiye but also all around the World.

Thanks to the Pastry Club and school cleaning staff, we have been able to make a thousand tartlet as a treat for the Health Care Providers in Tuzla Public Hospital Pandemic Department



And with the help of a campaign named "Blood donation saves life" that was coordinated by Turkish Red-Cross(Kızılay), we helped to donate about 100 units of blood to the patients suffering from COVID19.

With our "Every class has an orphan sibling" project we helped 42 orphan siblings from the rural parts of Africa and Asia's Muslim countries. We have all the information about them and we try to provide them with a monthly certain amount of pocket money collected by each class.



Also we contributed to the cataract surgeries of people who can not afford it and were badly affected by the illness in Sri Lanka. It is a great feeling to learn that they will go on their lives healthier and safer with clearly seeing eyes.



Another benevolent movement is the "Drilling wells in 3 African countries" Project. We fundraised more than 40 thousand YTL among students, teachers, staff, and parents to drill 3 water wells in three different African countries. It was so difficult, but it is worth watching the happiness of villagers who will have water in their village from now on.

All these real-life charities teach us so many things and we care a lot about the importance and relief of helping people as much as we can.

Sevval Yiğit, 11A



MEMORIZING “40 HADITHS”



The goal of the competition was to try to understand the importance of Hadith and Sunnah which are the basic sources of Islam. Reading and figuring out hadith texts and also commenting about actual daily news based upon them, acquiring moral values and recognizing the role of the hadiths' in these values, improving the knowledge and ability about jobs for gaining self-confidence concepts are the most crucial goals. In this competition", 30 students who memorized hadiths are presented with silver necklace awards. We are thankful to those students who participated in the competition and to the school administration because of their contributions.

"The Voice That Has Reverberated For A Hundred Years, The National Anthem"



Hafsa Polat, who got the 3rd place in Pendik district for writing a composition about Mehmet Akif, competition organized by the Pendik District Directorate of National Education.

Akif's way, on the trail of Asım; imagine a cherished homeland which every inch of it is watered by the blood of martyrs. Imagine a nation with hundreds of thousands of heroes had been lost for the sake of independence. Think of the bell that reminds us of all the blessings we have and awakens us up. He doesn't tolerate the fragmentation of his homeland, his nation and writes sincerely in every line that he writes conscientiously. Mehmet Akif is the name of the rebel that preaches by visiting mosques. We aimed to keep Mehmet Akif alive, to understand him, and to tell the next generations. On this occasion, we congratulate our students

Zehra PAMUK, 9A



Middle School Clubs

First Step of Authorship run by Cemile Hatun KELEŞ

EMC - English Movie Club run by Birtan ÖZTÜRK

Mathamatical Problem Solving Club run by Ayşe ÇEKER and Burcu GEDİK

Shakespeare Club run by Ezgi VEYİSOĞLU

Sports and Exercise Club run by Zülfü Delal KARADEMİR

English Video Club run by Şeyma TURAN

Science Problem Solving Club run by Sabahat Derya ÖZKAN

Library Club run by Hanife MUHÇU

Poetry Club run by Halime GÖKKAYA

Mathematical Modelling Club run by Aslıhan ÇOKSÖYLER and Cemile AYTAR

Tongue Twister Club run by Dinara FAKHRETDİNOVA

Basic Science Experiments Club run by İnci TURAN GÖKÇE

Environment Club run by Semra TARHAN

Muslim Thinkers Club run by Niyet BAYINDIR

The Youth Following The Prophet Club run by Fatma Ekinci KIVRAK

OUR CLUBS MAKE ALL THE DIFFERENCE

There are 15 in Middle School and 12 in Highs School, a total of 27 Clubs, with %80 of student participation, in our school. All are so visionary and mind widening clubs. Every year our teachers introduce the clubs and we get to choose at least one among the great options. I have to confess that it is so difficult to choose. And this year due to the pandemic we made all the clubs online just like our lessons. And thanks to our teachers and administration everything goes on well organized.



I am a member of Environment club which is great. We have done lots of activities in our distinguished club like composting, bean planting, gold polishing, biomimetic and we solved questions to fully understand biomimetic and issues. We did a lot more and we put into practice the things we've learnt in the club. For example, after learning about vertical farming, we used pet bottles to grow things like strawberries and lettuce. We also made seed balls. We used different methods to practice them in our houses which do not have a garden, or enough balcony space. Normally, we need a large land for compost, but we did it in a plastic bottle. We all wanted to change our lives and become more environmentally friendly. Moreover we tested our water footprint and learned how much water we spent, and we made some promises to reduce it. We also learned the amount of water required to produce certain foods, like chocolate which costs too much water. We learned about animals and flowers. We observed different animals online, like the biggest arthropod which is the coconut crab. We learned where the flowers grow and a lot of things we hadn't known before. I am looking forward to the things we will learn in this club next year.

High School Clubs

İstanbul is the Boiler Pan, We are the Ladle run by Muhammet AKBAL

Popular Math Club run by Feyza KOÇ

Becoming a World Citizen run by Handegeül ALTAN and Merve AY YILMAZ

Physics and Experiments Club run by Gülnan KARAMAN and Ramis YARTAŞI

History and Thought club run by İbrahim KAYA

Environment, Health and Nutrition Club run by Serpil TAŞÇIOĞLU /

Chess Club run by Melek GÜRGÜN

Math Problem Solving Club run by Zehra OLTULU

Museum Club run by Ezgi ACARER

Chemistry Club run by Hacer DOĞAN and Ruhan YILMAZ

Culture,Literature and Library Club run by Makbule Kübra MERCAN and Teyfik ACAR

Social Thoughts and Ideologies Club run by Mustafa BALCI



Elif KARADUMAN, 5B



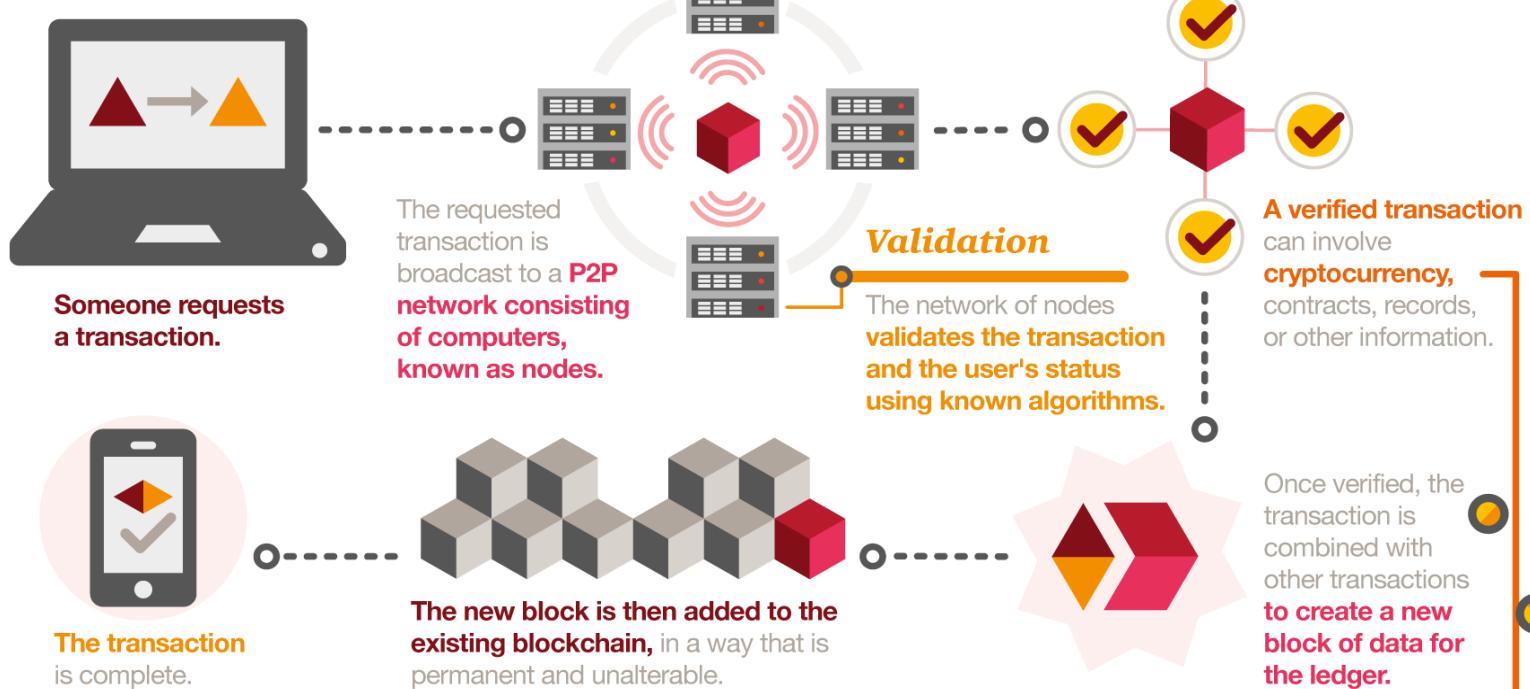


A look at blockchain technology

What is it?

The **blockchain** is a decentralized ledger of all transactions across a peer-to-peer network. Using this technology, participants can confirm transactions without the need for a central certifying authority. Potential applications include fund transfers, settling trades, voting, and many other uses.

How it works:



Benefits

- Increased transparency
- Accurate tracking
- Permanent ledger
- Cost reduction

Unknowns

- Complex technology
- Regulatory implications
- Implementation challenges
- Competing platforms

Cryptocurrency

Cryptocurrency is a medium of exchange, created and stored electronically in the blockchain, using encryption techniques to control the creation of monetary units and to verify the transfer of funds. Bitcoin is the best known example.



Potential applications



Automotive

Consumers could use the **blockchain** to manage fractional ownership in autonomous cars.



Financial services

Faster, cheaper settlements could shave billions of dollars from transaction costs while improving transparency.



Voting

Using a blockchain code, constituents could cast votes via smartphone, tablet or computer, **resulting in immediately verifiable results**.



Healthcare

Patients' encrypted health information could be shared with multiple providers without the risk of privacy breaches.

Turkey's work on space, satellites speeds up with National Space Program

After the National Space Program was announced by President Recep Tayyip Erdogan, efforts were stepped up on space and satellite research. The program's first goal is to carry out a soft landing on the Moon in 2028

TURKSAT

Turkey's TURKSAT satellites will cover Europe, Africa and western and southern Asia including Indonesia (except Russia and China) in the communication field



COMMUNICATION SATELLITES

TURKSAT 1A

Turkey's first communication satellite, TURKSAT 1A, was launched on Jan. 24, 1994, but malfunctioned and fell into the ocean in 12 minutes and 12 seconds

TURKSAT 1B

This TURKSAT satellite entered into orbit on Aug. 10, 1994

TURKSAT 5A

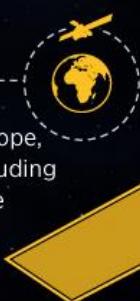
TURKSAT 5A, with an entirely electric propulsion system, was launched from the US state Florida on Jan. 8, 2021. It is planned to enter into service in June

TURKSAT 5B

Continuing its investments in satellite technologies, Turkey plans to launch the TURKSAT 5B communication satellite in the last quarter of 2021

TURKSAT 6A

Spearheaded by TUBITAK Space under the Industry and Technology Ministry, the integration phase of TURKSAT 6A, Turkey's first indigenous and national communication satellite, is slated for completion this year for launch in 2022



OBSERVATION SATELLITES

RASAT

RASAT, launched from Russia on Aug. 17, 2011, is Turkey's second remote sensing satellite after Bilsat and the first observation satellite designed and manufactured in the country



Having successfully completed its ninth year in orbit and revolved 51,000 times around the world, RASAT has scanned an area of 17.2 million square kilometers and transferred 3,284 lane images to the Earth station

GOKTURK-2

As the first high-resolution observation and surveillance satellite uniquely developed in Turkey, GOKTURK-2 was launched into orbit in 2012

Produced by the National Defense Ministry, TUBITAK, and a joint venture between Turkish Aerospace and TUBITAK Space, GOKTURK-2 provides the Turkish Armed Forces and Air Force with target intelligence, as well as digital and geographical data production

GOKTURK-1

GOKTURK-1 was launched into space in 2016 to provide the Turkish Armed Forces with high-resolution images for target intelligence.

The satellite can perform various remote sensing tasks for public bodies and institutions, such as environment and housing monitoring, agricultural yield detection, municipal activities, border control, and cadastral activities

IMECE

IMECE was developed by TUBITAK Space as an indigenous and national Earth observation satellite featuring resolution of one meter and below. Launching it into space with the subsystems of the IMECE Infrastructure Project, Turkey aims to reduce foreign dependence in critical space technologies to a minimum



STARLINK

The Starlink project is a satellite network that has begun to be created in orbit around the world. The project is run by Elon Musk, one of the world's most popular entrepreneurs, and his space company SpaceX. SpaceX rockets have been placing satellites belonging to various countries in orbit. By using them, they plan to provide very fast and affordable worldwide internet service everywhere including the most remote corners of the world.

When it was announced by Elon Musk in 2015, it was perceived as an impossible project to be realised. And again, as always, the targeted date for 2017 could not

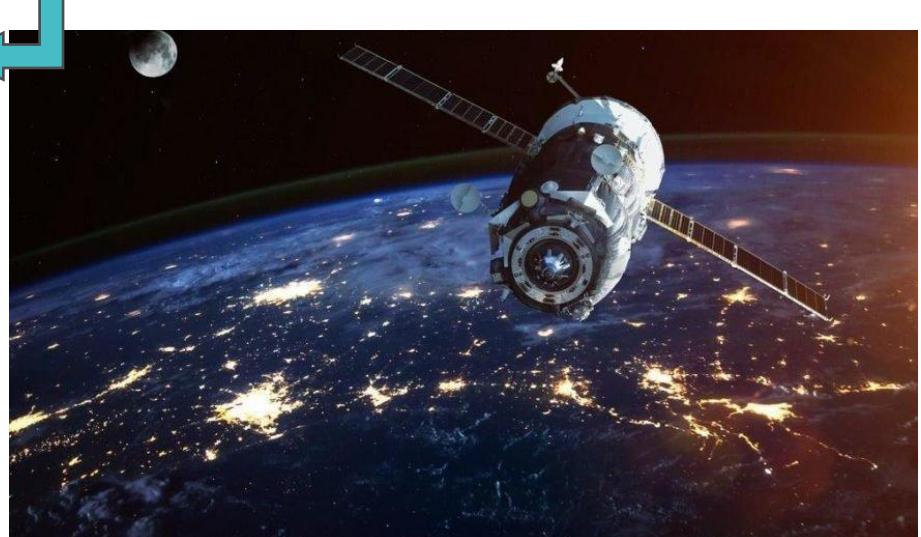


It is planned that at least 60 to 120 more will be sent each month over the next 10 years. That's 3-4 satellites on average per day. For this internet network to be established in space to work quickly and stably, 12000 satellites will need to be sent in the first stage and 30000 in the second stage. Elon Musk's ultimate goal is a total of 42000 satellites.

Each of the Starlink satellites weighs 260 kg and is about the size of a table. There are 4 powerful antennas on each one of them that they use to communicate with each other and with the world.



be achieved. However, 1 year after this date, the first 2 satellites named TenTen A and TenTen B were placed in orbit. Of course, you cannot provide internet to every corner of the world with two satellites. For this, many more satellites are needed in orbit. There is a need for thousands of satellites, not only tens or hundreds of them. ... 60 Starlink satellites were sent to space in May 2019, shortly after the first tests were carried out. Since November, 60 more have been sent each month. The number of Starlink satellites sent into space reached 422 by April 2021.



When the project is completed, the number of active satellites in space will increase by 20 times, meaning SpaceX will have sent alone 4 times of all orbital vehicles sent by all countries in the world.

Ecrin NUR ACAR, 7B



It has been a year since the WHO declared COVID-19 a global pandemic

On March 11, 2020, World Health Organization (WHO) Director-General Tedros Adhanom Ghebreyesus said the spread of the virus was at alarming levels and officially declared COVID-19 a global pandemic



118,169,684

CASES
WORLDWIDE



2,622,294

DEATHS CAUSED BY
COVID-19

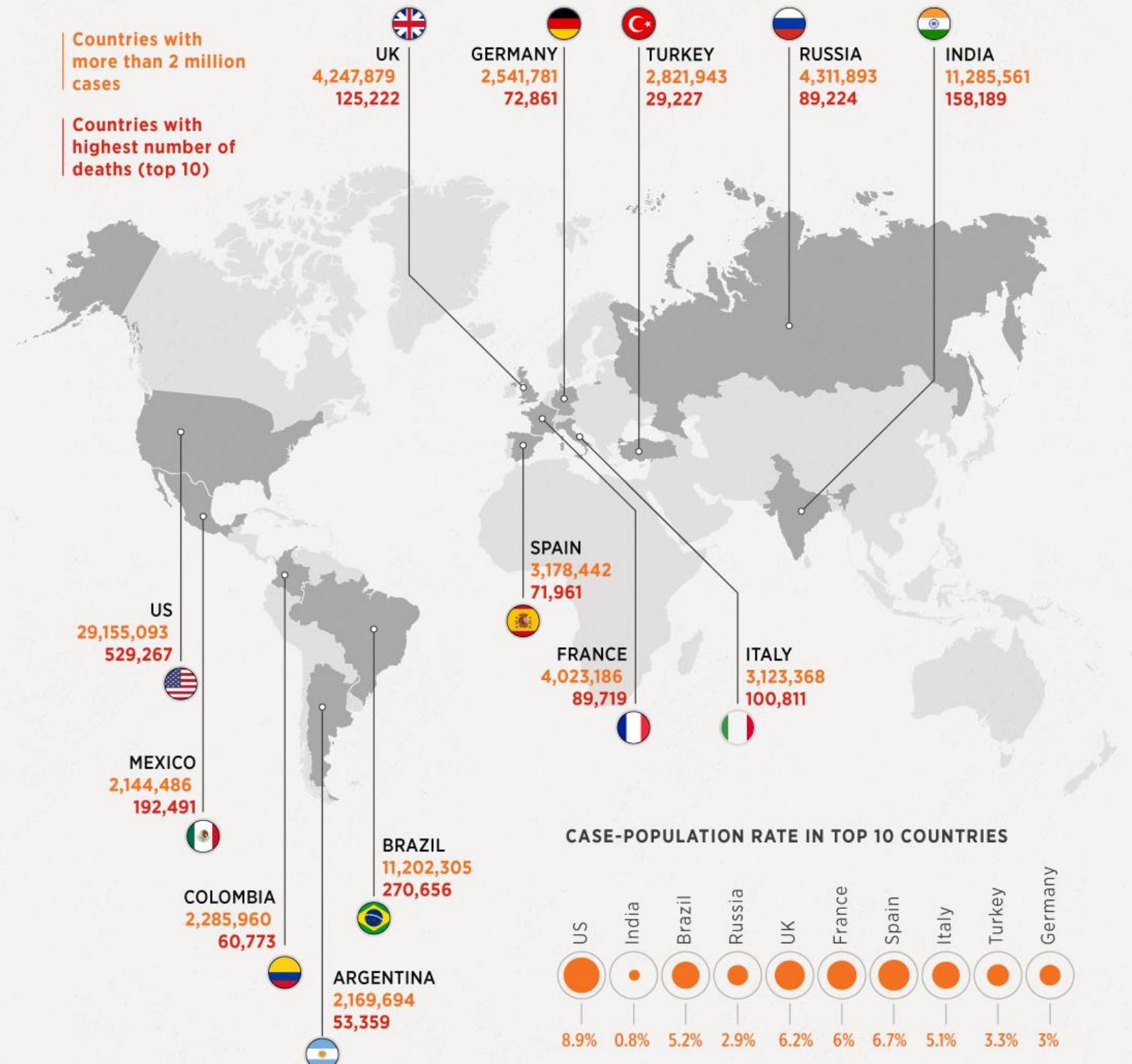


66,949,338

RECOVERIES



Globally, more than 300 million people have received vaccines, which are the hope for humanity to come out of the epidemic.





German pharmaceutical company BioNTech's co-founders Professor Ugur Sahin and his wife

Dr. Ozlem Tureci achieved breakthrough by developing a vaccine against coronavirus

They are among greatest success stories of Germany's three-million-strong Turkish community



The couple founded the Ganymed Pharmaceuticals in 2001, a company specialized in immunotherapeutic cancer drugs. The firm was sold to Japanese pharmaceutical company Astellas in 2016 for more than €400 million.

BNT162B2 VACCINE CANDIDATE



- Found to be more than **90% effective** during Phase 3 study
- Pfizer and BioNTech are planning to manufacture up to **1.3 billion dose** by end of 2021

Turkish immigrants' children behind world's 1st effective COVID-19 vaccine



Dr Ozlem Tureci

- Daughter of a Turkish physician who immigrated to Germany from Istanbul
- She has been widely regarded as a pioneer in cancer immunotherapy
- Chief Medical Officer of BioNTech since 2018

Prof Dr Ugur Sahin

- He was born in Iskenderun, Turkey, in 1965
- At the age of 4, he moved to Germany, where his father worked in a car factory
- Graduated from the University of Cologne in 1990, where he studied medicine
- He worked for many years at the Saarland University Medical Center
- He has been a professor at the Mainz University Medical Center since 2014
- Ugur Sahin was awarded the German Cancer Award in 2019

BIONTECH WAS FOUNDED IN 2008

The company was founded in 2008 in Mainz by Prof. Ugur Sahin, Dr. Ozlem Tureci and Prof. Christoph Huber to develop technologies for individualized cancer immunotherapies

BIONTECH'S TEAM : "PROJECT LIGHTSPEED"

The company named its vaccine project Lightspeed in mid-January. Together with its partner Pfizer, its aim is to make a vaccine available worldwide as quickly as possible





WATER SHORTAGE IN TURKEY

This challenge will become more difficult as the world's population continues to grow, living standards rise, diets change and the effects of climate change intensify.

Turkey is a country that is not rich in water sources. So it is necessary to make cities drought resistant.

The water we consume in food production every day is much more than the water we drink.



Water scarcity and drought affect poverty and economic growth, health and well-being, and the environment.

Crops are depleted, animals die, food shortages and famines become frequent, people are forced to migrate and conflicts arise.

Water scarcity causes difficulties in city infrastructure by the increasing costs for citizens, businesses, and government.

70 percent of global and local clean water resources are used in agricultural irrigation.

As time passes, we will have to use our natural resources wisely. The choice of crops to be planted will greatly affect the water required.

More frequent and severe droughts affect agricultural production, while increasing temperatures on a global scale cause an increase in water demand of agricultural production.

Water scarcity is expected to increase as a result of climate change. It is predicted to cause increasing temperatures around the world.

Doing so will not prevent drought from happening, but it can help prevent droughts from causing famine and socioeconomic deterioration.

Food thrown away (wasted) means wasted water.

When food is wasted, the water resources used to produce it are also wasted. Every year, a third of all food is lost or wasted.

By only shopping for what we need, and making small changes in our daily lives we can reduce our food waste level.

With the effect of global warming, as the snowfall decreases, the water holding capacity of the mountains (the world's water towers) weakens and the ecosystem is threatened.

Ecrin Nur ACAR, 7B





Annual cost of water access for 140 low and middle-income countries is \$114B, according to UNESCO



OF WATER RESOURCES IN THE WORLD

97.5%
salt water in oceans and seas

2.5%
is available as fresh water
in rivers and lakes

The shortage and overuse of water resources, which inspires the Earth to be called the "blue planet", three-quarters of which is covered with water and looks blue when viewed from space, threatens the life cycle on earth

- World Water Day is celebrated annually around the world as part of the decision, taken by the UN General Assembly on March 22, 1993
- The United Nations Educational, Scientific and Cultural Organization (UNESCO) reports that the annual cost to be allocated for water access to 140 low and middle-income countries is \$114 billion

 **APPROXIMATELY 2.2 BILLION PEOPLE ARE LIVING WITHOUT ACCESS TO SAFE WATER IN THE WORLD**

 Lives of more than 1 billion people are in serious trouble due to water scarcity

 More than 700 children under the age of 5 die every day from diarrhea since they do not have access to clean water and hygiene

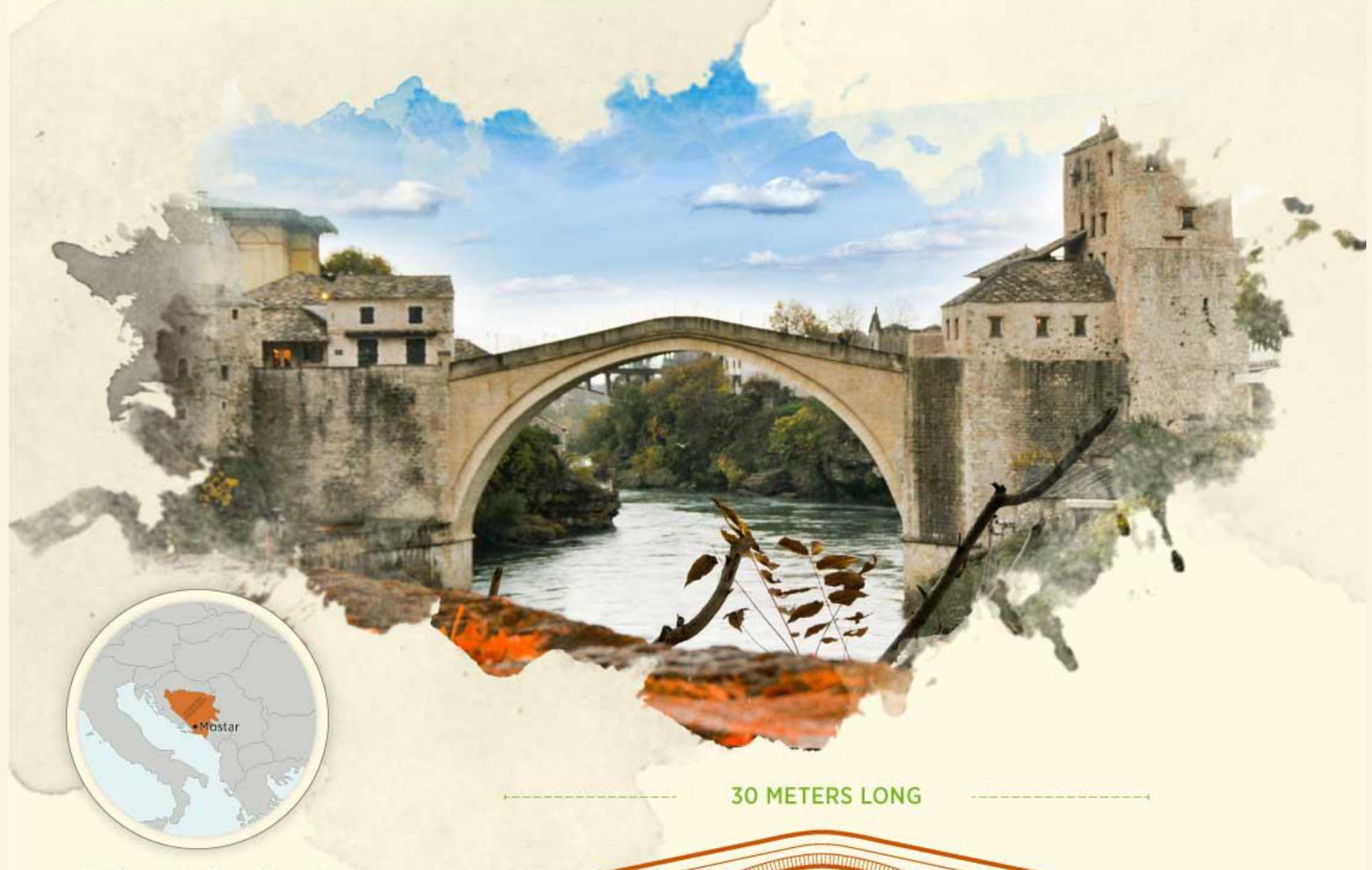
 Annual available fresh water per capita has decreased by more than 20% over the past 20 years

 450 billion children live in areas with extremely high water stress

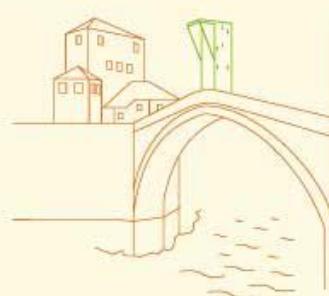
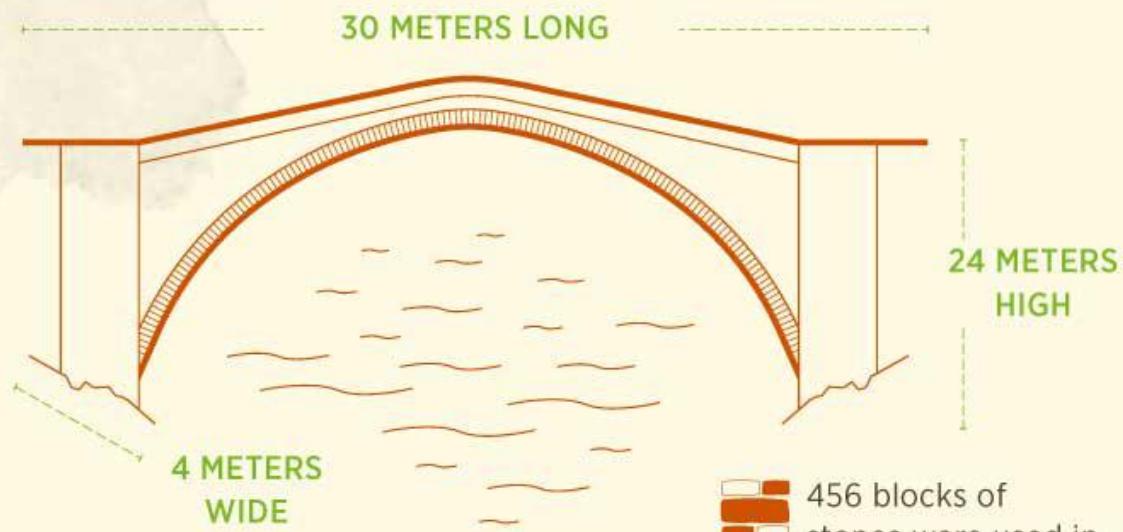
OTTOMAN GEM ON NERETVA RIVER:

Mostar Bridge

The historical Mostar Bridge, which was destroyed by Croatian forces in the 1992-95 Bosnian war but rebuilt in 2004, has been connecting civilizations



- It was built on the Neretva River in 1566 by Hayrettin the Architect, who was the student of chief Ottoman architect Sinan
- It was destroyed on Nov. 9, 1993 in an attack by Croatian troops during the Bosnian war
- The rebuilding process started in 1997 with the support of TIKA, UNESCO, IRCICA and World Bank
- It was reopened on July 23, 2004 and included in the World Heritage List by UNESCO in 2005



For years, adventure seekers and sportspeople have jumped off the bridge into the fast flowing river below

456 blocks of stones were used in the construction of the bridge

- The province of Mostar was named after the bridge
- It connects the Bosnian and Croatian neighborhoods of the province



1894

One of the important representatives of bard culture, Asik Veysel Satioglu is born in the Sivrialan village of the central province of Sivas on Oct. 25

Two of Asik Veysel's sisters died of smallpox, which was spreading in the region. Also catching the disease, the great bard lost sight in both eyes at seven years old

At the age of 10, he started playing the saz and reading poetry with his father's encouragement

The great bard took lessons from the saz -- a Turkish long-neck lute -- from masters Camsihli Ali and Molla Huseyin at that time

1919

He marries his first wife, Esma Hanim, in 1919

1920

Both his parents die

1928

He marries a second time with Gulizar Hanim, after his first wife left him

Seven children, Zohre, Ahmet, Huseyin, Menekse, Bahri, Zekine and Hayriye, were born from this marriage

1931

After being invited by poet and playwright Ahmet Kutsi Tercer, who was serving as a teacher and education director in Sivas province, he starts teaching the saz and first makes a name for himself at the Sivas Bards Festival on Jan. 5

Asik Veysel, who spent his life in poverty and hardship, drew attention after an epic he wrote for the 10th anniversary of the republic was published, as well as for his success at the Sivas Bards Festival

1950

Asik Veysel is portrayed in the film Dark World, written by Bedri Rahmi Eyuboglu and directed by Metin Erksan, that takes place in his village of Sivrialan

With traces of Sufism, a rich variety of subject matter in his poems that were influenced by Yunus Emre, Asik Veysel is engraved in memory as one of the great masters of Turkish literature and instrumental poetry

1965

Turkey's parliament grants him a monthly pension of 500 Turkish liras for his service to Turkish language and national unity

1971

The famous bard puts on his last concert in the Hacibektas district of Nevsehir

1973

On March 21, he passes away in Sivrialan, the village where he was born, in the house that is today a museum under his name

With the poetry books Sounds From My Saz and Friends Remember Me already published, another book, **All Poems**, was published in 1984 after his death



Bard who shed light on today from his world of darkness

ASIK VEYSEL

Etched in memory with such works as I walk on A long And narrow road, Friends remember me, Your beauty is worthless, Mourning for Ataturk, Don't scorn me, World of five days, If I pour my troubles into a deep stream, Cruel fate and Black Earth, Asik Veysel used the Turkish language in the most plain and powerful way and always urged unity and solidarity for the Turkish nation in his poems

Despite losing sight in both eyes due to a smallpox when he was seven years old, the great bard shed light on present times with messages of patriotism, tolerance, joy of life, love, unity and solidarity in his poems





Major Earthquakes in Turkey

Situated on nearly all the earth fault lines in Turkey last year, 33.824 earthquakes were recorded. The number of earthquakes with real magnitude 4 or higher in 2020 was 322.

About 500 thousand earthquakes occur in the world every year. Only one fifth of these earthquakes can be felt, about 100 of them cause damage.

33.824 earthquakes were registered in Turkey, according to the data provided by AFAD in 2020.

Since 1500s, 23 earthquakes of magnitude 7 or more in Richter Scale had been recorded at different times.

As a highly active seismic country, Turkey, is among the Arab-African-Eurasian plate. Turkey, within the boundaries of North Anatolian Fault, East Anatolian Fault and the Western Anatolian Fault Zone is located in a strong earthquake zone.

Large earthquakes in Turkey

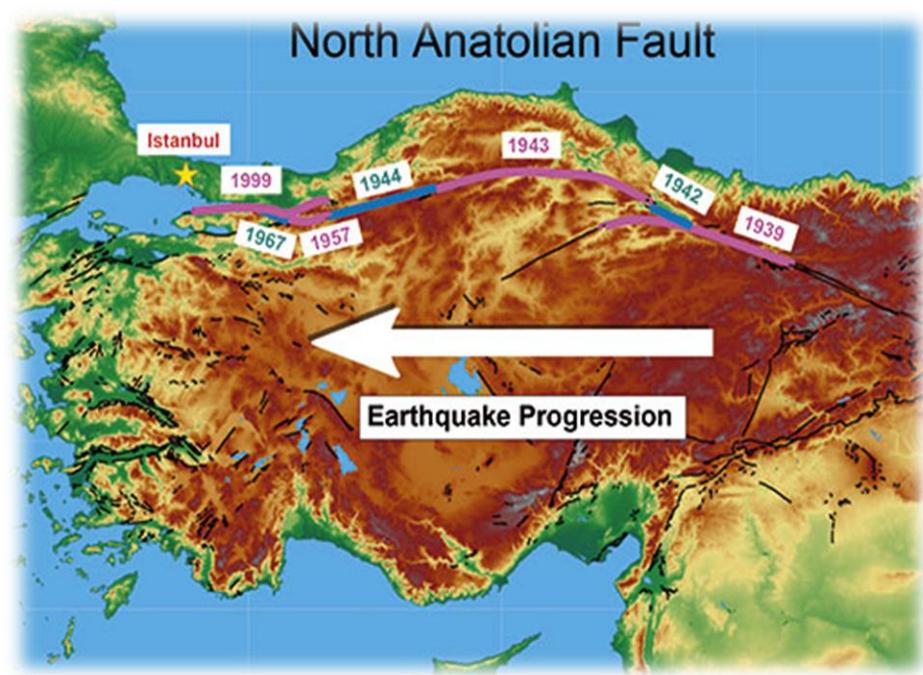
- 1509 Istanbul Earthquake (7.2)
- 1939 Erzincan Earthquake (7.9)
- 1976 Çaldıran Earthquake (7.5)
- 1999 Gölcük (Kocaeli) Earthquake (7.4)
- 1999 Düzce Earthquake (7.2)
- 2003 Bingöl Earthquake (6.4)
- 2011 Van Earthquake (7.2)
- 2020 Elazığ Earthquake (6.8)
- 2020 Izmir Seferihisar Earthquake (6.6)

Mars Landing

NASA's Perseverance Mars rover has become the second NASA rover to touch down on Mars after a six-month journey through space.

NASA's mission is to find signs of life on the Red Planet; However, the most risky maneuver was to pass through the thin atmosphere and land safely on the Martian surface. Mars has long been a death trap for spacecraft arriving, and many could not land safely. The six-wheel machine weighs a ton and must spend at least two years exploring the landing site.

In the first pictures transmitted from its landing site in the Jezero Crater, the rover appeared to be in a great shape and it will now begin gathering rock samples to be analyzed for signs of past **microscopic** life. Scientists believe that the area was once flooded with water, and it was home to an ancient river **delta**.





WHAT'S THE BIG DEAL ABOUT NANOTECHNOLOGY?

Today, nanotechnology has enabled quite striking developments in the field of medicine as well as in fields such as physics, chemistry, biology, computing, materials science and electronics. The devices to be produced with this technology will probably circulate in our veins and provide treatment. With the production of nanomaterials, very durable transportation vehicles and non-polluting, non-rusting items and even clothes that clean themselves can be produced. Usable water resources, which will be one of the biggest problems in the future, can be renewed with this technology. Perhaps in the near future, biological and pharmacological nanobots that can work in the human body will be produced in this way. We can say that nanotechnology is the key technology of our age.

Atom

The atom or particle is the smallest building block of all matter in the known universe, bearing the chemical and physical properties. Atom is derived from the atomos, which means indivisible in Greek. The first person to come up with the word Atomus was Democritus, who lived in 440 BC. It is a very small particle that is impossible to see with the eye and can only be examined with an atomic force

microscope. If the number of electrons and protons are not equal, this particle is called an ion. Ions are highly unstable structures and interact with other ions and atoms in the environment to escape their high energy.



THE HISTORY OF THE ATOM

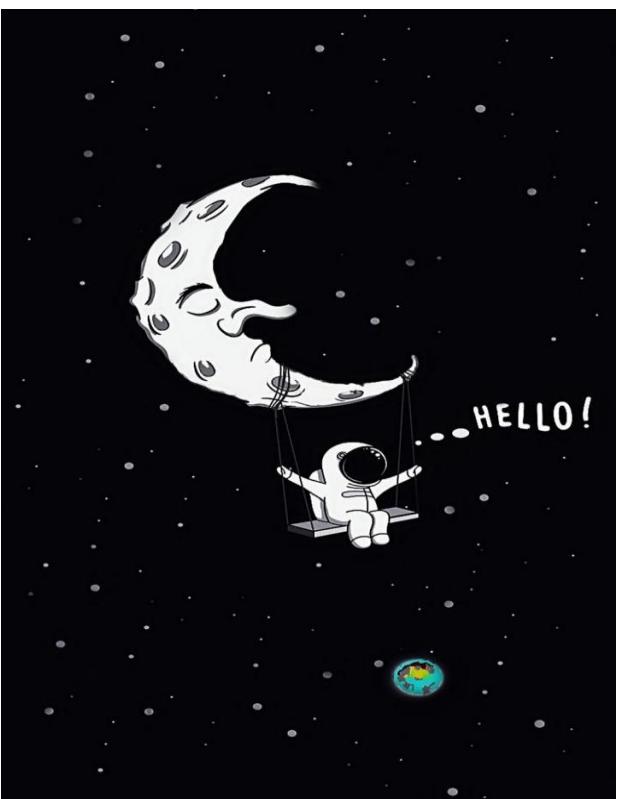
Democritos introduced the first atomic theory and named it "atomos", meaning indivisible. And right after that, John Dalton compared the atom with solid berl spheres. Thompson, on the other hand, made a grape cake model and found that the atom consists of smaller particles. Rutherford called the positively charged particles in the atom "protons". By comparing the atom to the solar system. While likening the sun to the core and the planets orbiting it to electrons, Bohr suggested that electrons do not travel in layers at a given distance. In modern atomic theory, it is stated that the layers around the nucleus have a nebular appearance, and this is called the "electron cloud".

Elif Ayşe KILIÇ, 7C





LUNAR NOAH'S ARK



US scientists are planning to carry out a project they call the 'Modern global insurance policy', inspired by The Doomsday warehouse and Noah's Ark.

The main goal of this project is to prevent people and other living things from being wiped out from the face of

the Earth when life on earth becomes impossible. For this, scientists said they wanted to send sperm, egg cells and seeds to the Moon. Jekan Thangaveluatham, a professor of engineering aviation and mechanical engineering in Arizona, stated that about 250 rockets would have to be launched to carry 50 cells (335 million cells in total) from each of the 6.7 million species.

Supporting this crazy idea, Tanga said, "We were a little surprised at the number." Scientists say that the International Space Station, which can launch 40 rockets, needs 6 times more capacity.

While Thanga states that he sees a deadly global pandemic and large-scale nuclear war as the worst disasters in the world, he says that it is very risky to keep samples of living things in the world.

That's why he thinks it would make more sense to hide on the Moon, not

on Earth. Besides stating that the most important problem is conservation, Thanga underlined that it is necessary to have huge coolers for this project. Seeds must be cooled to -180°C and stem cells kept at -196°C in order to be stored by freezing. As a reference to how cold this is, the Pfizer COVID-19 vaccine is -70°C or It should be stored at -94°F . The fact that the cell tubes are very cold and the samples are even colder, the metal parts of the Base run the risk of freezing, jamming and even cold welding.

It is possible to understand how scientists develop various conservation methods in order to maintain species. However, the part of how we can ensure the survival of the species by going to the Moon in a nuclear disaster that will affect the survival of the species, taking the sperm we have stored there and bringing them back to Earth is completely enigmatic.

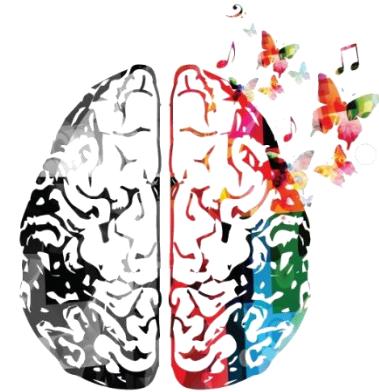
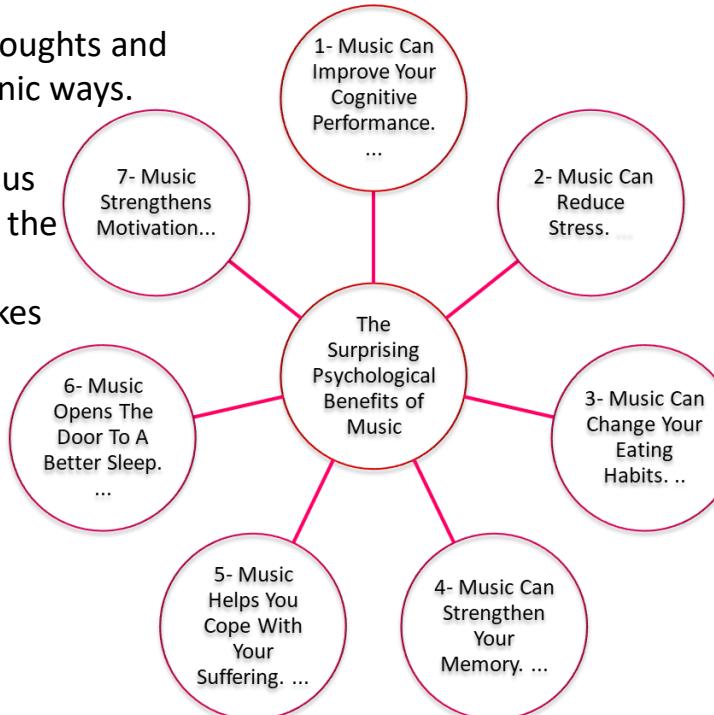
**Cemre Su SUSAM
Ecrin Hatice BALABAN, 7D**

THE EFFECTS OF MUSIC ON OUR BRAIN

MUSIC:

The art of expressing emotions, thoughts and images in monophonic or polyphonic ways.

While listening to music, the nucleus accumbent, the pleasure center in the brain, moves and releases the neurochemical dopamine that makes us feel good. This chemical is released when we eat something or when we love someone. In addition, endorphins are also released in the brain when listening to music.



DID YOU KNOW THAT:

Researchers at the University of Leicester found that cows produce 3% more milk while listening to relaxing music. Scientists in South Korea have proven that classical music, in particular, helps plants grow faster.

Ecrin Hayriye DEMİRTAŞ, 5C



Elif Bilgin is a **23 years old** Turkish **scientist**. She has taken environmental pollution as a pressing problem since she was little. At the age of 14, she started researching to find a solution to this issue.

She noticed that petroleum-based plastics, that are insoluble in nature, have grave consequences for the environment.

While she was looking for a solution to this problem she came across the term 'bioplastic'.

After seeing floating plastic bags in the Bosphorus she decided to produce bioplastic material from banana skin. She picked banana skin because it is an organic waste that easily decomposes in nature.

It's also cheaper than petroleum-based plastics and contains plenty of starch which is essential for bioplastic production.

The only thing left was to develop necessary methods for producing bioplastics. She worked for 2 years and she failed many times but she succeeded in the end.



After 12 attempts, her perseverance paid off and she successfully produced a strong bioplastic from banana skin.

Elif Bilgin banana plastic

Her project was admitted to the Google Science Fair 2013 competition. In September 2013, she won the contest, and also received Scientific American Magazine's Science in Action Award and the Voters' Choice Award. After her success at the Google Science Fair, she has been a guest speaker

at various conferences such as Google Zeitgeist 2013, TEDx Vienna, The European Union's Innovation Convention, TEDx Diyarbakir. She has also visited CERN after receiving an invitation from Professor Bilge Demirkoz.

Meryem İkra ÇALIŞKAN, 9B



The chips are the most basic part of all the technological products used today. Phones, tablets, laptops, cars, computers working with chips.

These days there is a chip crisis in the technology world. Consumers are facing price rises and shortages of products. The shortage in chips, the “brain” within every electronic device in the world, has been steadily worsening since last year.



The causes of the chip crisis are pandemic and drought. Due to the pandemic, the decrease in raw material production and reaching chip production centers has become an important

problem. Being the largest chip manufacturer in the world, TSMC (Taiwan Semiconductor Manufacturing Company) has difficulty obtaining pure water due to drought, which makes chip production very difficult.

Automobile production has also become difficult due to the chip crisis. The manufacturers worked on this issue but could not find a solution. When the producers could not find a solution, the states got involved. Despite the

refrigerators) has also become difficult.

If the chip crisis continues, more factories will be closed. As the factories close, production will decrease.

Production will continue to decrease for a while and eventually production will stop.

For this reason, the price of the products in the market is increasing day by day.

Some people say the chip crisis will last up to a year, others say it will last 6 months. There is no clear answer to this issue.

**IF THERE ARE NO CHIPS,
THERE IS NO TECHNOLOGY!**

merger of several states, there was no solution to this problem. There are even factories closed for this reason. In addition, the production of other technological devices (from computers to

Feride KAYA, 7D





ARTIFICIAL INTELLIGENCE

We use artificial intelligence in our daily life almost at all time.

It takes place in our lives while having fun, learning, cooking, even in emergencies and illness.

Artificial intelligence is not just about robots.

Artificial Intelligence actually refers to the most desires or machines that mimic human intelligence to perform tasks and can recursively improve themselves according to the information they gather.

Artificial Intelligence is not designed to replace humans, although highly

functional human-like robots that take over the world in minds when Artificial Intelligence is mentioned are alive.

Below are the places where artificial intelligence is used today.

COVID-19 AND ARTIFICIAL INTELLIGENCE

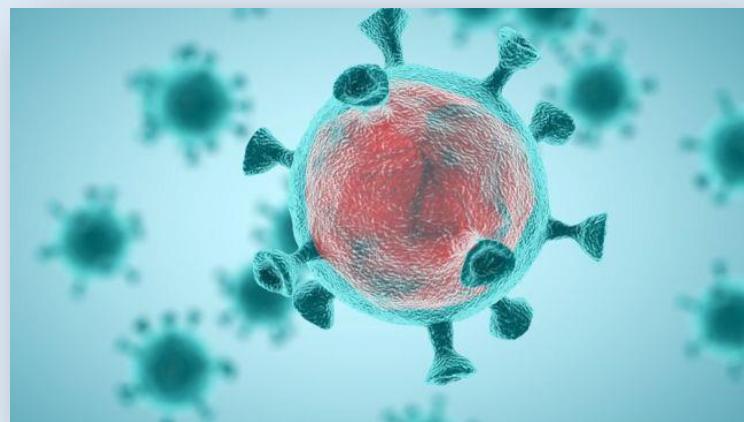
Artificial intelligence helps to protect us from Covid-19 in everyday life.

Early Diagnosis

Artificial intelligence can quickly analyze sporadic symptoms and febrile individual tracking, thereby separating patients from healthy individuals and activating the early warning system.

Treatment Follow-up

Artificial intelligence can be used to create a wide neural network to extract visual features of the disease by creating a smart platform that will automatically monitor the spread of the virus.





Monitoring COVID-19

Contact tracking has led the industry to create a data dashboard for monitoring COVID-19, viewing the actual and expected spread.

Many dashboards have been created such as UpCode, NextStrain, Johns Hopkins CSSE, Thebaselab, Microsoft Bing.

- ✓ If the instructor wishes, he / she uses the "whiteboard", which is similar to the "blackboard" in this system. At that moment, the students watch the writings and figures recorded on the blackboard at the same time.

this question in writing or verbally at that moment in a way that other students will hear.

Hygiene and Artificial Intelligence

Artificial intelligence comes into play in the field of hygiene, as is the case everywhere.

- ✓ While washing our hands, we do not have to touch the taps that everyone touches, thanks to the indicator taps we encounter in most places.
- ✓ Hand dryers in the sinks get used to the same technique. It detects our hands and dries them with air. Since it is a high pressure air, our hands dry quickly and are not damaged.

DISTANCE EDUCATION AND ARTIFICIAL INTELLIGENCE

Distance education started to prevent interruption of education during the pandemic process brought by covid-19. Thanks to artificial intelligence;

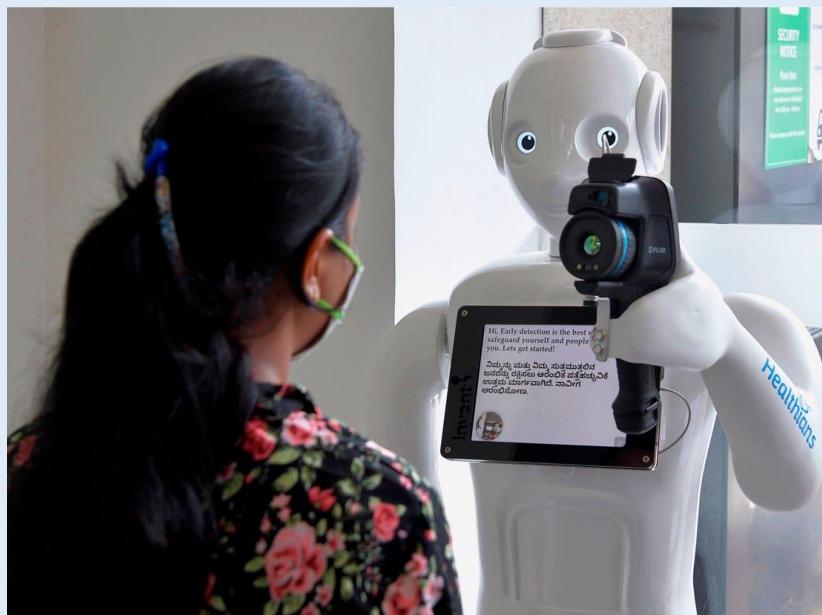


- ✓ The instructor presents his lessons visually and audibly in front of the camera.
- ✓ The instructor explains his lesson using the presentation tool and adhering to the lecture notes he has prepared before.
- ✓ The lectures taught by the instructor are recorded in the archive in video format. The student tries to understand the subject better by watching this video at any time.
- ✓ The student can ask questions during the lesson. The instructor answers

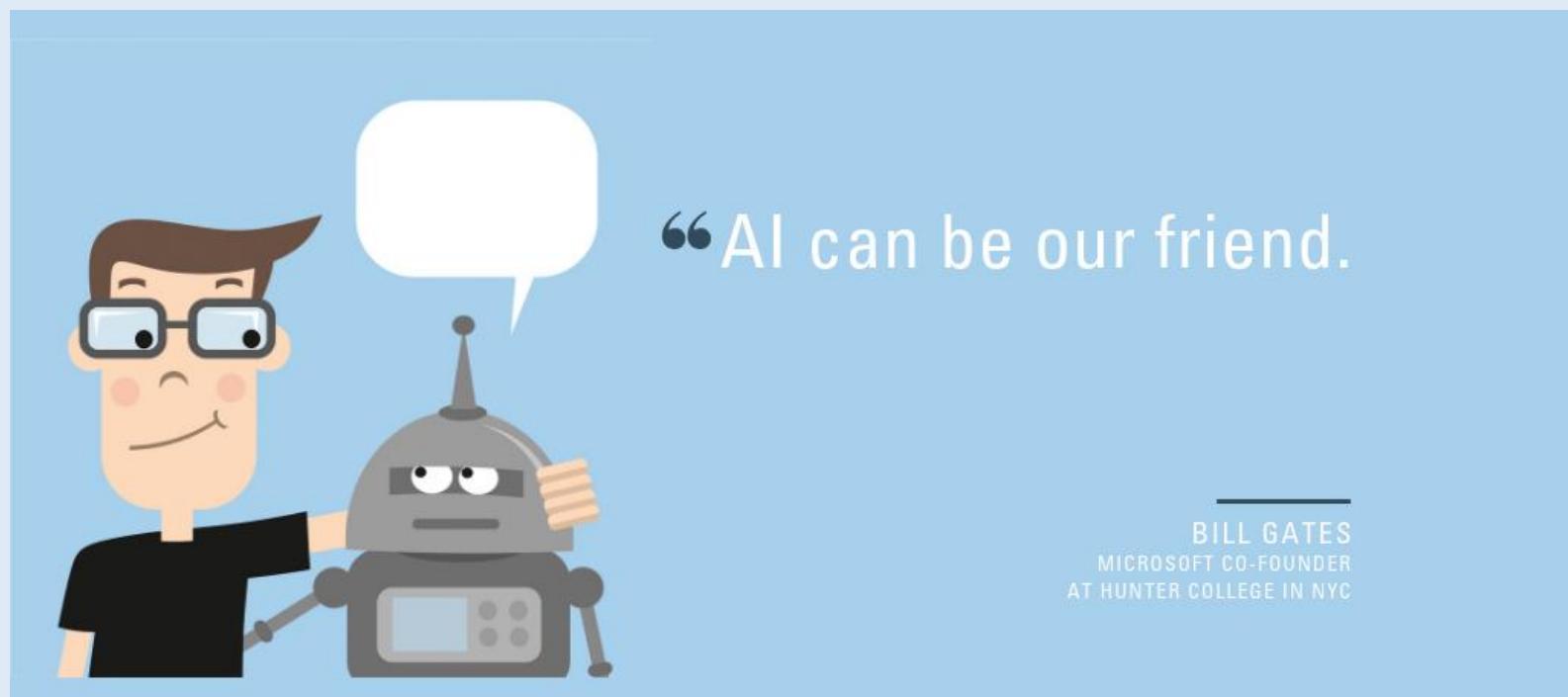




- ✓ Artificial intelligence visual perception is also used in the program of small robots that move and clean the floors in our homes by themselves.
- ✓ Robots that are used by people who enter inside the company, such as banks, which are mostly located abroad, and which both measure fire and have a face recognition lock.



These robots have the ability to recognize the person (face recognition), the ability to identify movements, and the ability to detect temperature. Most importantly, all this is thanks to artificial intelligence.



Yağmur SARIÇEK, 5D



collision of two galaxies. In this stage, gravitational instability occurs in the region with sufficient mass.

This instability is called **Jeans Instability**.

After Jeans instability, a dense gas and dust cloud called **Bok globule (Dark nebula)** forms. Bok

The more it collapses, the hotter and the denser it gets. When it reaches sufficient pressure and temperature, it becomes a **protostar**.

A protostar continues to grow by accretion of gas and dust from the nebula, becoming a pre-main-sequence star as it reaches its final mass. Further development is decided by its mass.

STELLAR EVOLUTION

Alright, so everything starts with a **nebula**, a cloud of gas and dust. These gas and dust clouds are actually relatively tenuous. They are a thousand trillion times more tenuous than the air we breathe. The reason why they look so cloudy is actually simple: They're gigantic! Nebulae are gorgeous. And they are hot! A typical nebula's temperature is generally higher than 15000 °C.

Generally it all starts when there's a gravitational instability that is caused by shockwaves and these shockwaves are caused by a supernova or the



globules look really dark compared to their surroundings because they're so dense, they can contain 50 solar masses, and light almostly cannot pass through them, so they look dark.

By the way, the bok globule spins and continues to collapse itself.

Brown Dwarfs

If the protostar doesn't have enough mass, it will become a **brown dwarf**. They are like failed stars. These celestial beings don't have sufficient mass to occur nuclear fusion in their cores. They are too



what they are. They really don't fit into anything. By the way, bad news: Brown dwarfs are not really brown! Some of them are so cool, they don't emit



any visible light, so they are black. But some of them are a little warmer and have some molecules that absorb different colors in their atmosphere, so they might look magenta.

The Higher Its Mass, The Shorter Its Life

If the protostar has more mass, by the time, it will become a **star**.

Stars make energy in their cores by nuclear fusion. They transform hydrogen atoms into Helium atoms and each time they do that, a little amount of energy is released. They're doing that non-stop, so it powers them for a long time.

How long they are going to live actually depends on how much nuclear energy they create. The rate of fusion reactions are directly proportional to the pressure and heat in the core. If the star is massive, it will squeeze its core harder and the pressure will increase. Meaning, fusion reactions will be faster and the star will run out of hydrogen more quickly. That means high mass stars live a shorter life than low mass stars.

Main Sequence Stars

Both low mass stars and high mass stars spend their time in a similar way during the **main sequence**.

When a protostar has sufficient heat and mass, it starts to do fusion reactions in its core and becomes a main sequence star. 90% of known stars are main sequence stars.

Main sequence stars have two sets of battling forces:

Gravitational force and thermal force. Gravitational forces are the forces that formed the star but they still try to collapse the star and thermal forces try to make the star expand. The star changes by the battle of these two forces and these changes are different in low mass stars and high mass stars.

Low Mass Stars

In the case of a **low mass** star, fusion is turning the star's mass into energy. This causes the star to lose its mass, the gravitational force weakens and thermal force beats gravitational force. Thus, the star slowly expands, and cools. These cooler stars are called **red giants**. They don't get red because of embarrassment. They got red because cooler stars are red colored.

After a relatively short time, the red giant becomes unstable.





The gravitational forces will win again and that old star will collapse. After the collapse, what's left behind is a **white dwarf** and the outer parts of the red giant remains as a shell of gas and dust. This shell of gas and dust is called a **planetary nebula**.

The white don't have nuclear fusion and by the time, the white dwarf gets cooler, darker and becomes a **black dwarf**. But for now, there is no black dwarf in the universe because the universe is too young. Not a single white dwarf turned into a black dwarf, yet.

High Mass Stars

In the case of a **high mass star**, everything's good while the gravitational and thermal forces are balanced. But when the star runs out of hydrogen, things get just weird!

Gravitational force beats thermal force and squeezes the star harder than ever. With this pressure to the core, the nuclear fusions get faster and that causes the core to burn hotter and faster while the outer layers of the stars get much bigger. By big I mean it

becomes a **red supergiant**! Meanwhile these outer layers fuse heavier elements. Carbon burns to Neon in centuries, neon to oxygen in a year, oxygen to silicone in months and silicon to iron in a day. Whatever trouble happens is after the iron. Suggestion: Stay back!

The problem is iron cannot be fused. It doesn't give any energy, but sucks. Meaning, there isn't nuclear fusion anymore and that means thermal force isn't there to balance the gravitational force. The gravitational force wins, again, and smashes the core. The red supergiant collapses into itself, backfires and explodes! That's what we call, a supernova. With this explosion, most of the star's mass is released. And what's left behind could be two things: If the star's core is between 1.4 and 2.8 solar masses, a **neutron star** and if the core is more than 2.8 solar masses, a **black hole**.

Neutron Stars

Before the supernova, as I said, the red supergiant collapses to itself. It happens super fast and

with vast pressure. By doing so, the iron atoms get very close to each other and something interesting happens: Protons and electrons merge to form neutrons. And that's why they're called **neutron stars**.

When the core collapses down, the star is full of neutrons with some protons and electrons here and there that survived, but mostly neutrons. A neutron star's mass is around a million times of the Earth but the size of it is about 20 km in diameter. A single cubic centimeter of a neutron star weighs 400 million tons. If we don't count the blackholes, they are the densest things in the universe. Naturally, these stars have a huge gravitational pull. A typical neutron star's gravity is 100 billion times stronger than Earth's. But since their spinning speed increases, their magnetic field increases as well and it can become several trillion times stronger than Earth's. By the way, a neutron star's surface is really hot, it can reach a million degree celsius.





Pulsars

Pulsars are neutron stars as well. Their speedy rotation and strong magnetic field couples together and throws away twin beams of energy from the star like a lighthouse. It looks like pulsates of light from Earth and that's why we call them pulsars. These pulses can be detected in visible light, radio waves and x-rays. Nowadays, over 2000 pulsars have been detected in total.

Black Holes

If the star's core is between 1.4 and 2.8 solar masses, it collapses down too much but the neutrons inside of it would resist it at some point. But what if the core is more than 2.8 solar masses? Well, the star will collapse and nothing will be able to stop gravitational forces. All of its mass will be contained in a point that has zero volume. That point is called the **singularity**.

The mathematics we use to explain the physical world and quantum

mechanics are helpless to understand what's going on in the singularity.

Actually, what we see when we look at a black hole isn't a black hole. It's the **event horizon**. The event horizon is the surface around the black hole where the escape velocity is the speed of light. If you cross the event horizon, you need to move faster than light to escape it. Meaning, it's impossible to escape.

The reason why we see black holes as "black" is not that they're black colored. But because to see an object, the light needs to be reflected from the object and enter our eyes. The gravity of a black hole is incredibly powerful, the light cannot escape it. So the light can't come back and enter our eyes and we see it as "black".

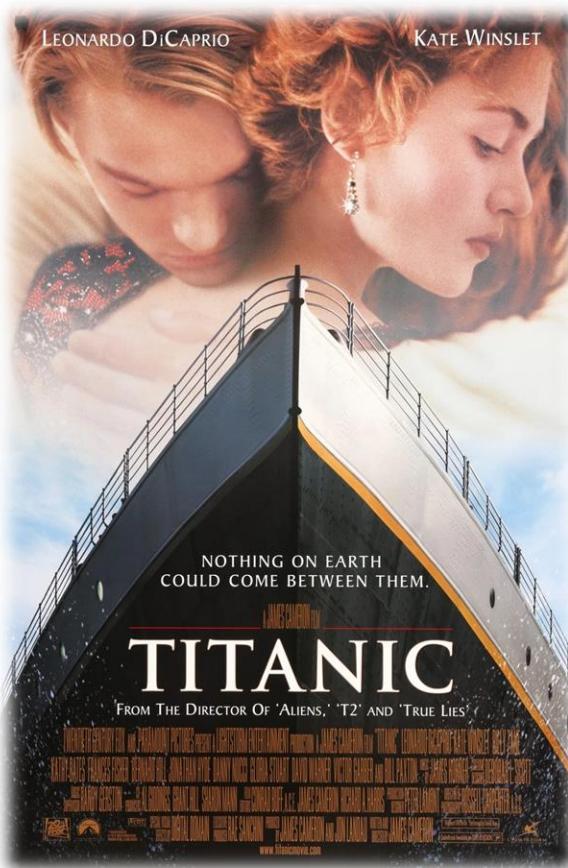
The other fact about black holes is they don't just suck up the whole

universe. You need to get close to get swallowed by the black hole. **Stay away, stay safe.**



Meryem Sude BOZKURT, 9A





Director: James Cameron

Runtime: 3 h 14 min.

Stars: Leonardo DiCaprio, Kate Winslet, Billy Zane, Kathy Bates, Frances Fisher, Bernard Hill, Jonathan Hyde, Danny Nucci, David Warner, Bill Paxton

Release Date: 20 February 1998 (Turkey)

The History, Romance and All the Struggles of Mankind Were in a Sinking Ship

"The history of all hitherto existing society is the history of class struggles," said Karl Marx. It is a quite controversial sentence, however, it still has a lot of truth in it, if you consider the human nature and its history. The movie *Titanic* is a wonderful example of class struggles that Marx mentions. Even though the movie is often categorized as a movie that is based on a love story, there is a lot more to the story. In the movie, the main roles are shared by Kate Winslet and Leonardo DiCaprio, who are one of the most famous actors in Hollywood nowadays. But back then, both were so young, Kate Winslet was only 21 years old, and Leonardo DiCaprio was only 22 years old.

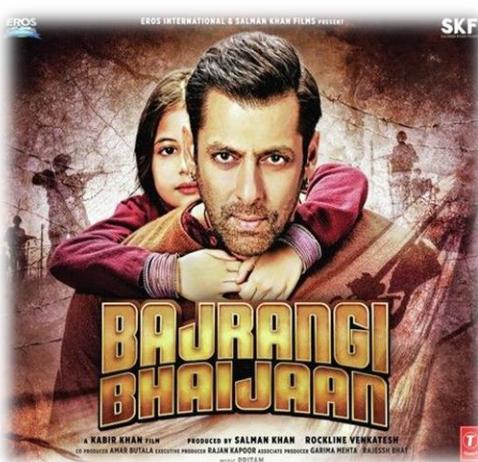
"A seventeen-year-old aristocrat falls in love with a kind but poor artist aboard the luxurious, ill-fated R.M.S. *Titanic*" is the summary that is used by many. The main characters of the story, Jack and Rose, were completely different people. They fell in love with each other, and they enjoyed their time on the ship. Rose's mom and her fiancé were strongly against their relationship. Still, they resisted on being together

and somehow, they handled all the troubles that Rose's arrogant and wealthy fiancé caused. Unfortunately, their love story did not last long and ended with a tragic end just like the ship itself.

In general, people are crazy about these kinds of impossible love stories. I believe that the interest the movie gained might be because of its historical background. Even though the story of Rose and Jack sounds so romantic; you cannot feel the same way when you learn from history that all those people who died by drowning or freezing to death, died because of the whims of wealthy people. 1,517 people died just because wealthy and upper-class people did not want to share the lifeboats with low-class passengers, saying that they did not look aesthetic to them. That is why, there were not enough boats for the lower classes who did not have the same privileges as the rich, when *Titanic* was sinking.

Titanic was just like the world that we created. It was alone on the ocean, people were wealthy, and they were in comfort but also, they were unable to save themselves. The ship had people that belonged to all classes, and the disaster of *Titanic* showed us how the difference between these people could result in terrifying situations. Also, it was a fascinating example of human beings' behaviors in life and death situations. The movie shows such an impressive love story, but it also shows a lot of undercurrent themes. Although the producers have spent more money to create this incredible movie than the people who built the actual *Titanic* ship, I think they have created a masterpiece that would be remembered for generations.

Halime Zehra BAŞER, 11C



Director: Kabir Khan

Stars: Harshaali Malhotra, Salman Khan, Kareena Kapoor

Time: 159 minutes

Release date: 15 July 2015

Bajrangi Bhaijaan is an Indian Hindi-language comedy-drama film. This movie tells us about a mute girl who crosses a man's path. The girl named Shahida was born as mute. Her mother does everything to make her speak, finally she decides to take Shahida from Pakistan to India to have her treated. But she didn't know that this journey was going to change

Shahida's life. The film received wide acclaim from critics and was a commercial success. It grossed \$150 million worldwide and is currently the third highest-grossing Indian and second highest-grossing Bollywood Film. It won the National Film Award for Best Popular Film at the 63rd National Film Awards and was nominated for four awards at the 61st Filmfare Awards, including Best Film and Best Actor, and won the Filmfare Award For The Best Story. It was also nominated for Best Foreign Film in China's 2015 Douban Film Awards

Sudenaz AYAR, 7D





Director: René Veilleux

Length: 1 hour 20 min.

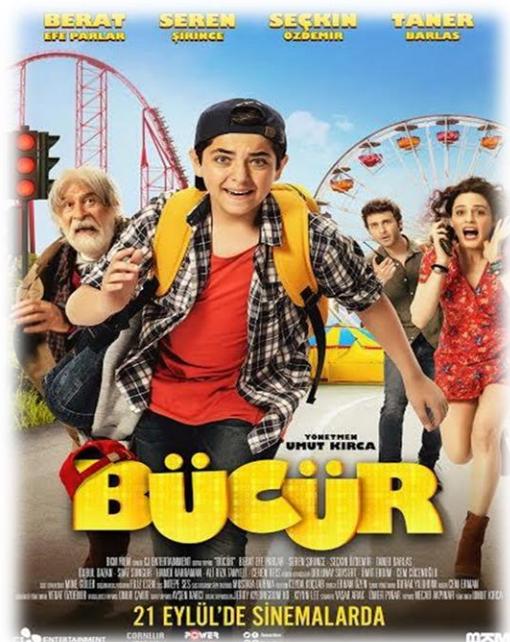
Stars: Liza Arzamasova, Ramilya Iskander, Anna Ardova, Lyudmila Artemeva, Doug Erholtz, Erin Fitzgerald, Wendee Lee and Marianne Miller

Release date: 21 December 2018 (Poland, et al.)

This is a 2018 Russian 3D computer-animated fantasy adventure family film. Mirrorland is the fourth film in the Snow Queen series. The stories are inspired by the 1844 fairy tale of the same name by Hans Christian Andersen.

In this film, the king, King Herald, is angry with the Snow Queen because she tried to freeze his son in the past. So, he wants to send all those with magical powers to the land of mirrors. King Harald finds a way to ban all the magic from the world, all the possessors of magic powers are now trapped in Mirrorlands. Gerda, The main heroine from The Snow Queen, learns that the king lied in order to banish the magic from the world. Gerda's parents are also trapped in the Mirrorlands. They believe Gerda will save them, but Gerda is imprisoned in the King's castle. Gerda escapes from the prison, and with the help of trolls, pirates and soul of the Snow Queen Gerda manages to re-open the portal to the Mirrorlands to save the people stuck there.

Hanne ÇETİN, 5D



Director: Umut Kırca

Stars: Berat Efe Parlar, Seren Sirince, Seçkin Özdemir

Runtime: 1 h 33 min.

Release Date: 21 September 2018

Bütçür is about the adventures of a young boy trying to find his mother. Umut, an ultra-smart kid who spends his time in front of the computer, is a real computer genius. Umut, who has never seen his mother and wondered who she is, decides to find his mother before his tenth birthday. He uses his computer skills to find his mother. He finds her traces in Istanbul and goes there. Umut coincidentally meets Özge in Istanbul. He tries to find his mother while trying to get rid of Özge and the men who chase them. This movie is a comedy and I really like it, because it is very funny. It is great for children and teenagers.

Elif KAYRAK, 5D

Directors: Sergio Pablos, Carlos Martínez López

Length: 1hr. 37min.

Stars: Jason Schwartzman, J.K. Simmons, Rashida Jones, Will Sasso, Neda Margrethe Labba, Sergio Pablos, Norm Macdonald, Joan Cusack

Release Date: 8 November 2019

After being exiled from the Postal Academy to a frozen and almost abandoned island above the Arctic Circle by his own father because of his lethargic nature, Jasper learns that the people who live in the island separated themselves into two groups. Both sides cannot stand each other because of race differences. While he tries to get used to people's barbaric living style, he discovers Klaus, a secretive man who lives alone in the middle of the forest and makes handmade toys. The unwanted acquaintanceship turns into an unforgettable friendship. They try to change the people of the island's poor attitude. Meanwhile Jasper starts to learn to care about the things that are not connected to himself.

Nisa YAZOĞLU, 11D



Director: DUFFER BROTHERS

Stars: Millie Bobby Brown, Finn Wolfhard, Noah Schnapp, Gaten Matarazzo, Caleb McLaughlin and Sadie Sink

Runtime: 3 SEASON (new season is coming)

Release date: July 15, 2016

Stranger Things takes place in the fictional rural town of Hawkins, Indiana in the early 1980s. The nearby Hawkins National Laboratory is apparently conducting scientific research for the US Department of Energy. However, paranormal, and supernatural experiments are also being conducted, including those involving secret human testing. By mistake, a gateway to an alternate dimension is created. The first season begins in November 1983, when Will Byers is abducted by an upside-down creature. Will Byers' mother, Joyce, and the town's police chief, Jim Hopper, search for Will. At the same time, a young psychokinetic girl named Eleven escapes from the lab and assists Will's friends Mike, Dustin, and Lucas in their efforts to

find Will. The second season takes place a year later, in October 1984. Will was rescued, but few know the details of the events. When Will is discovered to be still affected by beings from below, his friends and family learn that the upside-down poses an even greater threat to their universe?

The third season takes place a few months later, until the Fourth of July celebrations in 1985. A new mall has become the center of attention for Hawkins residents, and many other stores are out of business. Unaware of the town, a secret Soviet laboratory under Starcourt tries to open the upside-down door, allowing the head-downstairs to take over the people of Hawkins and create a new fear to deal with.

This series is one of the most suspenseful series I have seen in my life. I have watched a lot of TV series so far, but *Stranger Things* is much more exciting than all of them. I strongly recommend you watch this series.

Azra Nur ÇAKGÖZ, 7B



Creators: Scott Frank, Allan Scott

Length: 1 season (6 h 35 min)

Stars: Anya Taylor-Joy, Chloe Pirrie, Bill Camp, Christiane Seidel, Rebecca Root, Chloe Pirrie, Akemnji Ndifornyen, Marielle Heller, Harry Melling, Patrick Kennedy, Jacob Fortune-Lloyd, Tiit Lilleorg

Release date: 23 October 2020

The Queen's Gambit follows the life story of an orphan named Beth Harmon, whose goal is to become the world's greatest chess player. By the age of sixteen, she is competing for the U.S. Open championship. But as Beth hones her skills on the professional circuit, the stakes get higher, her isolation grows more, and the thought of escape becomes more tempting. She struggles with alcohol and drug addiction, and emotional difficulties between the ages of eighteen and twenty-two. The story stretches from the middle 1950s to 1960s.

Hafsa POLAT, 7A



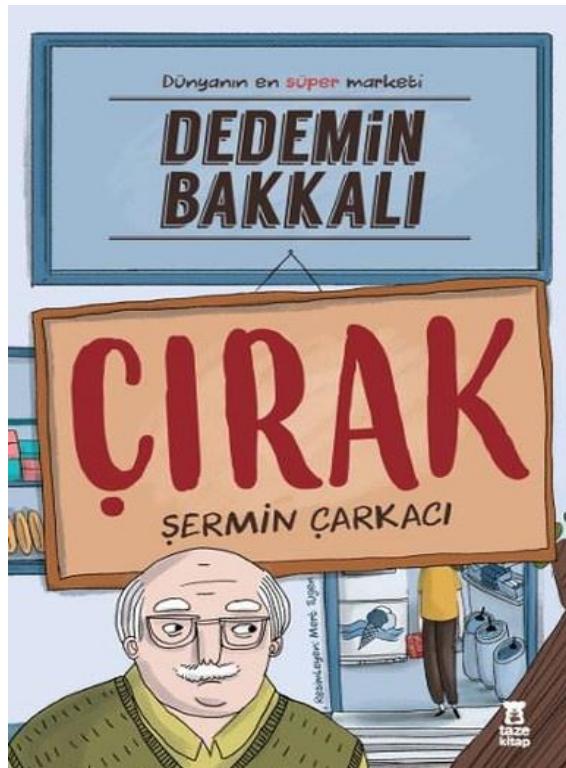
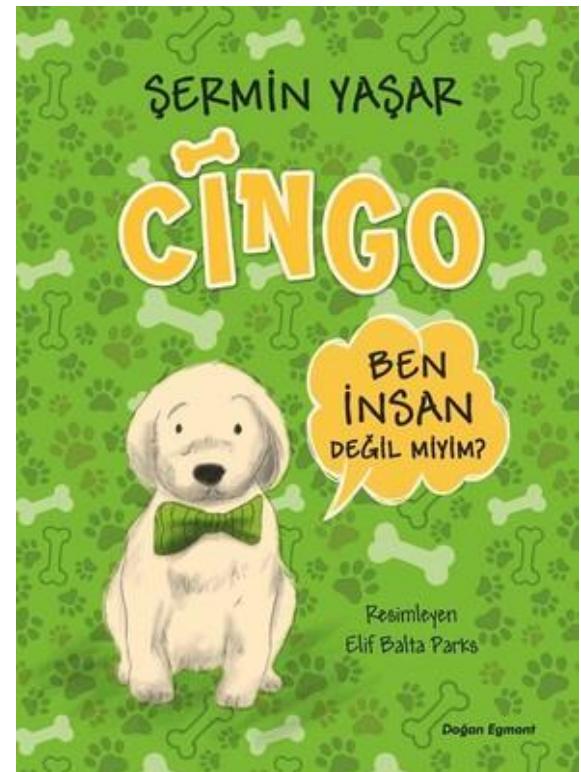


Cingo is a small puppy that thinks he is human. Can is very bored because he is an only child. His nickname is Cango. His parents also have nicknames. His father Taner is called Tango, his mother Binnur is called Bingo. Cango always tells his parents that he wants siblings. That is why, his parents buy him a puppy, and Can names him Cingo.

Cingo is a very sweet and sassy dog. He wants to be treated as a human. The book is about the adventures of Cingo. However, Cango's mother, Bingo, gets pregnant towards the end of the book. The family is very happy about this, but they start to be less interested in Cingo. Because of this, Cingo decides to leave his home, and never return.

I recommend this book to animal lovers. It gives us lessons about our relationship with animals. I really liked the book, but the ending was a little sad for me.

Ecrin US, 5D



Dedemin Bakkalı is a book inspired by the childhood memories of the writer Şermin Çarkacı, who is known as "Oyuncu Anne" in social platforms.

The book is about the adventures of Şebnem who helps her grandfather in his store. Şebnem tries to earn money by selling her goods in the store. She is interested in trade, but adults are everywhere.

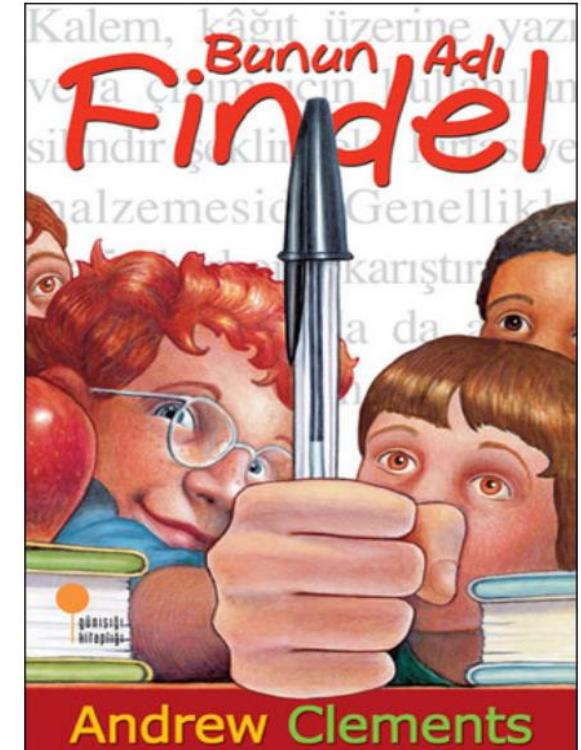
I started reading this book with my friends and finished it in 2 days. The main character of the book uses her ideas to help her grandfather earn money. This shows us that children can also think like adults, and can be interested in the commercial world. I think the book is very nice and it should be on your must-read list.

Azra YILDIZ, 5D

Frindle which was translated to Turkish as "Bunun adı Findel" was a well-known book when it came out in 1996. It sold millions in America alone. We are not familiar with this book by its success, but by its charm. Everyone dived into the story of the book and suddenly found themselves in the world of the main character, Nick.

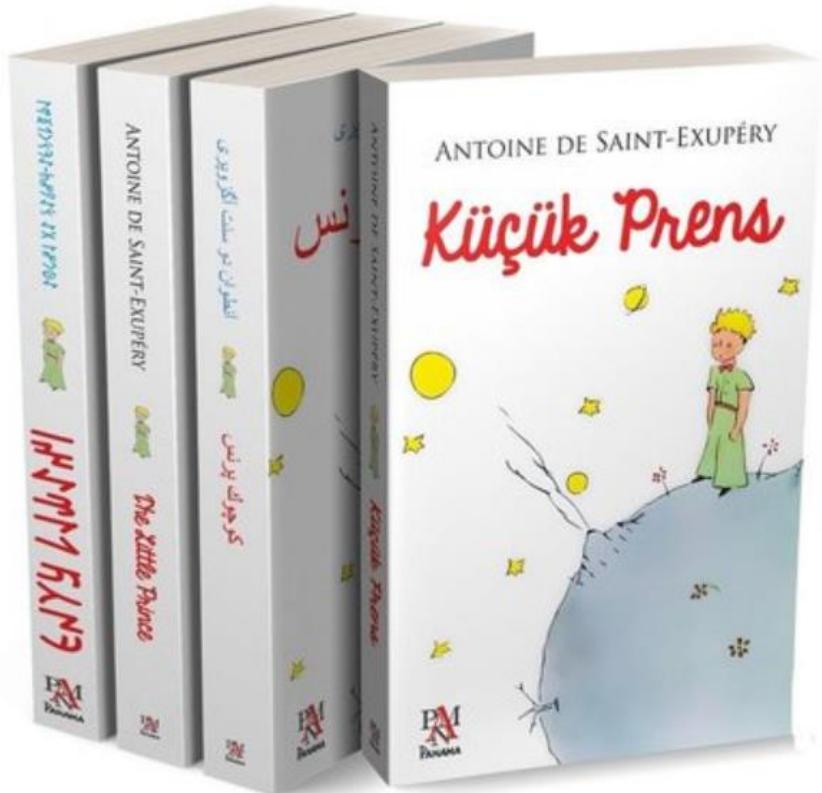
Although some people remember the book, it's mostly forgotten. And my aim is to remind this book, to make it known to those who do not know about it. The explanation of the book written by Andrew Clements is as follows: Nick, one of the most pathetic children of the fifth grade, is a master at disrupting the lessons with uncommon questions.

However, his tough grammar teacher does not fall for his tricks and asks him to prepare a report on the origin of the words. Struck by what he learned; Nick finds a brilliant idea to test them. He starts saying "frindle" instead of pen. The word that has no meaning spreads rapidly, first in school and then in the town. It becomes the subject of newspapers and televisions. Nick's innocent game will lead to unprecedented consequences ...



Dilara YILDIRIM, 5C





In this article, I will tell you about the book "The Little Prince", a book that has left its mark on the world. Antoine De Saint-Exupery deservedly received awards and managed to win the hearts of the readers. When kids read this book, they may not understand the hidden messages in the book. But the book says a lot for adults. It tells about the life of a boy living in a star, the other stars he travels and the people he meets in these stars: roses, foxes, and snakes.

In addition, many films have been made about the book. However, none of them could capture the flow, narrative and most importantly the deep meaning and taste of the book. In the book, "Goodbye," said the fox. "The secret I will give is very simple: One can only see the truth when he looks with his heart. The yeast of the truth is invisible." The little prince repeated, not to forget: "The yeast of truth is invisible to the eye." When you read this passage, you feel like reading the book, right? If everyone's answer is yes, let us read! See you.

Dilara YILDIRIM, 5C

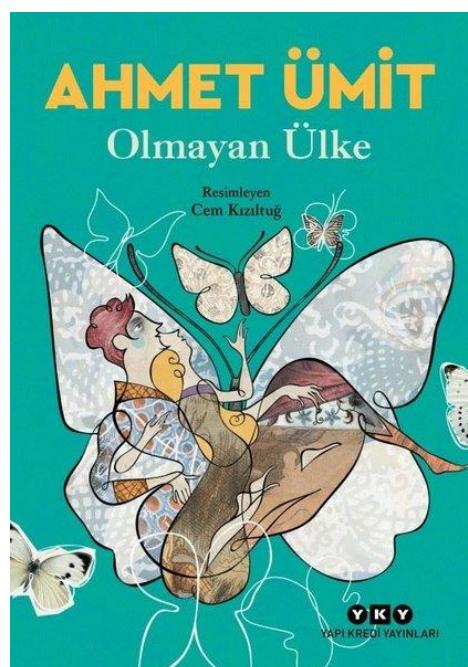
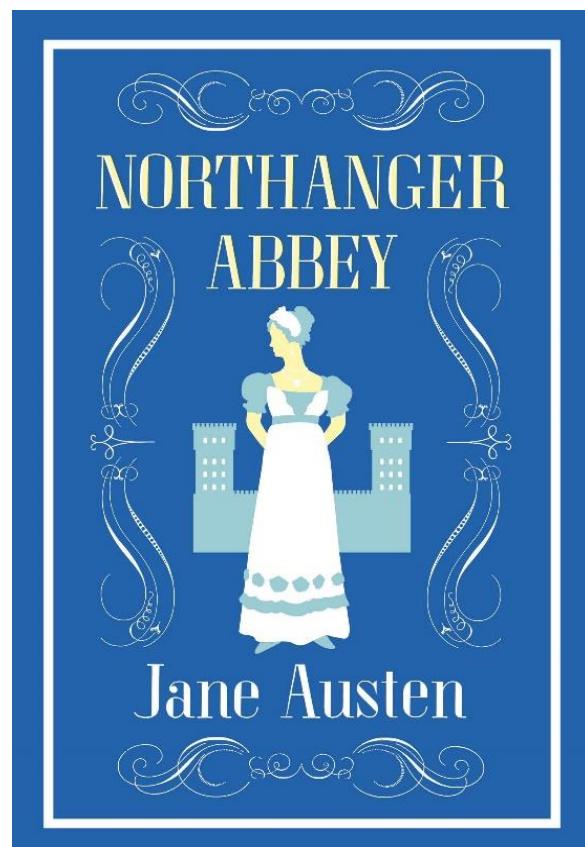
This book is Jane Austen's first novel, written in her twenties but published after her death in 1817 with *Persuasion*. Northanger Abbey is about an unpretentious beautiful girl, Catherine Morland, who falls in love with young preacher Henry Tilney.

Catherine is invited by her wealthier neighbors to accompany them. Catherine has a wide imagination and sees the abbey as a frightening place when she comes to visit. She is introduced to Henry during this trip.

Catherine and Henry face a lot of misunderstandings during the novel, and their relationship is affected by them. However, at the end they resolve their problem.

The Northanger Abbey is a coming-of-age novel which also shows the critique of the perceptions of the time of Jane Austen. The book is a playful response to the novels of Jane Austen's time.

Amine Zülal AKAY, 6B



Olmayan Ülke was written by Ahmet Ümit in 2008 and was first published by Doğan Kitap publishing house in 2011. It is a children's book consisting of 146 pages. Its characters are Nanny Woman, Sultan, Wizard Queen, Rüzgar, Su Lady, Yer Lady, Gök Lady, Aunt Sorcerer and Uncle Sorcerer. Yer Lady, Gök Lady and Su Lady are sisters and their mother died. But Nanny Woman takes care of them like they are her own daughter. Their dad is Sultan of Mind Country. Rüzgar is the son of the Dreamland Queen. The main subject of the book is the struggles of Su Lady and Rüzgar to rejoin each other.

Ceylin KAYA, 5D

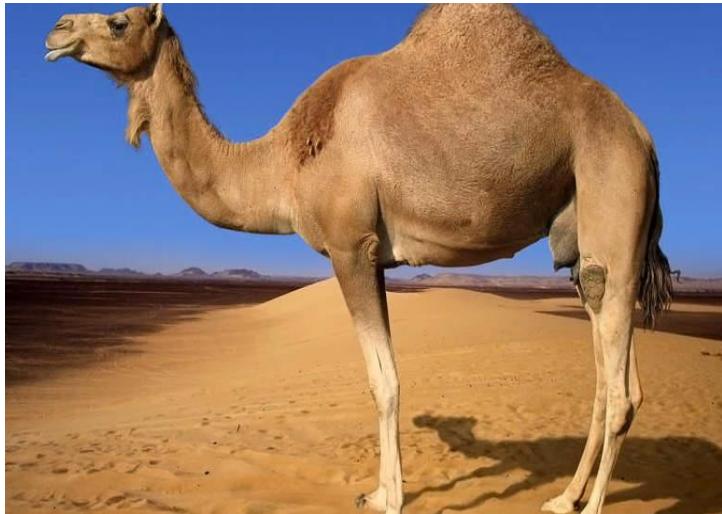
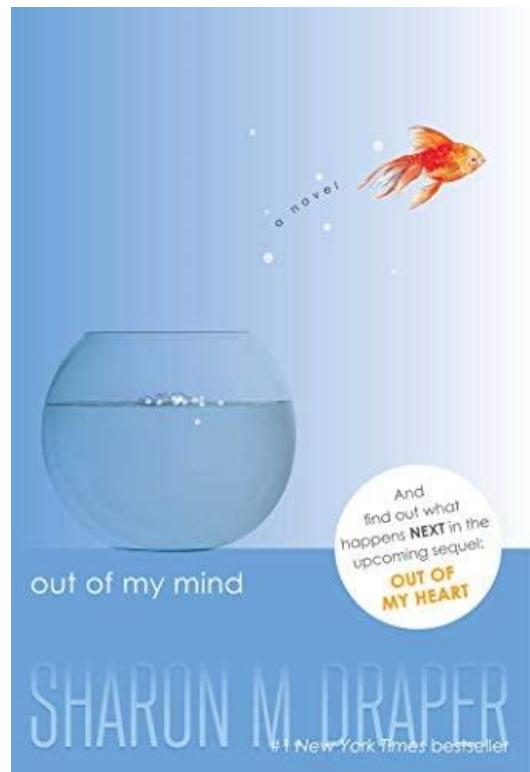


Melody, the protagonist of the novel *Out of My Mind*, was born with cerebral palsy. She is ten years old and has a photographic memory. Melody tells the story in her mind throughout the book.

Her family does everything they can to make Melody live a normal life. But Melody cannot talk, move, or meet any of her body's needs or requests. She must overcome everything, yet she refuses to be defined by cerebral palsy. And she is determined to let everyone know it.

"I haven't spoken a word until now." says Melody in the book. I found this both tragic and interesting at the same time. At times, the novel was heartbreaking. For instance, When Mr. Dimming, her teacher, and her friends were going to a competition in America, they forgot about her and took the plane, leaving Melody behind. In my opinion, this was the most tragic scene from the book.

Zeynep Rana ÖZTÜRK, 7C



A MIRACLE ADAPTATION OF AN ANIMAL OF DESERT

As we all know, not only deserts seem like stagnant places but also they involves drought-induced sandstorms which are truly scary and incredible situations. Camels are one of the most affected animals in such situations however they are completely able to close their eyes in sandstorms. In this situation, the miraculous curtains in their eyes that are almost protective and transparent enable them to see while they also protect their eyes.

DOES YOUR DOG LIKE CHOCOLATE?

Just as humans have a sensitivity to certain foods, there are also foods that are not suitable for animals. For example, chocolate is not very beneficial for dogs. Chocolate has caffeine-containing substances. For this reason, it is inconvenient for dogs to consume. Also, the high amount of sugar contained in chocolate also causes heart diseases for dogs. The most dangerous part of chocolate for dogs is theobromine, which affects the heart and nervous system. Because it can kill dogs, they must keep away from eating chocolate!



Ayşenaz Kargin, 7D



ABOUT PYRAMIDS

While examining the Egyptian pyramids, 12 scientists died of cancer because the mummies had been radioactive. And another interesting fact is that if you keep contaminated water inside the pyramid for a few days, you will get the water back clean.

Duygu Nehir SÖĞÜTCÜ, 7D





Did you know this?

Sloths with an average height of 60 cm live in tropical forests in Central and South America. They are known as the 2nd slowest moving animals of all mammals. It is calculated that it moves at most half a meter per minute. Sloths are among the animals that sleep the most, sleeping 15 to 18 hours a day. In the remaining time, they eat, and change the branch of the tree they hold on.



So why are sloths lethargic?



Sloths have more than one compartment in their stomach, where bacteria live in abundance. Sloths, which have established a symbiotic life with these bacteria, digest leaves thanks to bacteria. Sloths' stomach weighs 2/3 of their body. Despite this huge stomach, digestive processes can take a very long time. It takes almost 2 years to digest the leaves they are fed. And I'll say something else that will surprise you. Lazy animals can eat poisonous leaves because they have a liquid in their stomach that other animals do not have, that liquid kills the poison in the leaf.

Ela PALUT, 6B



You don't think that you can ever freeze? But there's somewhere where you can actually freeze, in Yakutsk.

This place has entered the Guinness Records Book as the coldest city. So how cold can it be? - 71 Celsius degrees! Let's start our review: Yakutsk is a city with approximately 300,000 population in Russia. The place consists of ice that exceeds 6 meters. So how does this cold affect people's social life? If you have a car then you had better never turn it off, because the engine oil freezes and causes the car's deterioration. People who can afford expensive garages are able to get rid of this negative impact. When it's very snowy in Turkey, the schools are on holiday, but in Yakutsk as it's most of the time snowy, schools don't close at all. How does this cold weather affect health? It's hard to breathe when it is colder than - 15 °C outside. If you are forced to breath, you may encounter risky problems such as skin burn. Have you ever heard of frostbite? It affects your tissues. You may even lose your limbs if it gets frostbitten. There are lots of dangers like that. In Yakutsk the houses are in a trapezoid shape, and they have chimneys! As it's hard to warm the houses, the chimneys are used for that matter. The amount and the size of ice can change because the city's soil is composed of ice. And a logical and funny question that comes to everyone's mind: Do people have a refrigerator? Of course not. Why would people need a refrigerator when they have a cooler source? This is the coldest city in the world; Yakutsk ...

Elif Nur Kurt, 7D



- ❑ The longest French fry in the world measures 34 inches long.
- ❑ Onions are full of vitamin C, iron, potassium, magnesium, zinc and more. It also has 17 amino acids.
- ❑ Potatoes were once used as currency on the South Atlantic island of Tristan da Cunha.
- ❑ Strawberry is the only fruit that carries seeds outside.
- ❑ According to Tori Avey, coffee became a popular beverage in America after the 1773 Boston Tea Party: the transition from tea to coffee was seen as a patriotic duty.
- ❑ Double coconut palm produced the world's largest seed: 45 pounds.
- ❑ Ice cream was once called "cream ice".
- ❑ Peanuts are not nuts! (Legumes)
- ❑ Carrots weren't always orange: They were once only purple in color.
- ❑ Cherry is a member of the rose family (Rosaceae) like quince, pear, plum, apple, peach and raspberry!
- ❑ Lima beans have an incredible ability to control wasps as defense. If insects eat the leaves of the lima bean, the plant emits a substance that acts as a signal to enter the parasitic wasp and destroy its enemies (leaf-eating insects).
- ❑ Apples float because a quarter of them is air!
- ❑ German Chocolate Cake is not from Germany. German is actually the last name (Sam German) of the man who invented a kind of baking chocolate.

- ❑ Some hurricanes can be faster than Formula 1 racing cars!
- ❑ There are 2,000 storms every minute in the world.
- ❑ It is quiet until the wind hits something.
- ❑ Iceland has ice caves with hot springs.
- ❑ The fastest raindrop ever recorded was 18 mph!
- ❑ Lightning can actually strike twice.
- ❑ Clouds appear white because they reflect sunlight coming over them.
- ❑ Yuma, Arizona receives over 4000 hours of sunlight a year, making it the sunniest place on earth. The least sunny place is the South Pole, where the sun shines 182 days a year. (Which one would you prefer to live in?)
- ❑ Rain contains vitamin B12.
- ❑ A lightning strike is five times hotter than the Sun.
- ❑ A hurricane releases energy equal to 10 atomic bombs in one second.
- ❑ Tropical storms and hurricanes began to be "named" in 1953.

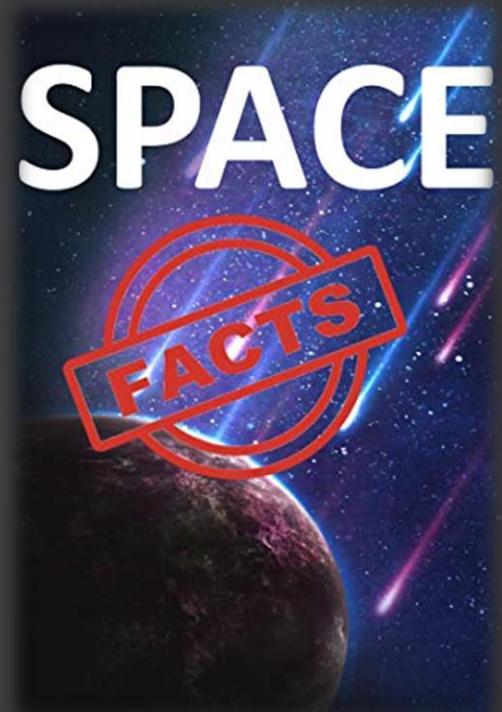




- The Wright Brothers flew together only once (both pilots individually): on May 25, 1910, they made a six-minute flight with Wilbur, Orville's pilot.
- Maritime tradition proclaims that submarines are called "boats" rather than "ships", regardless of their size.
- Hedy Lamar was a famous Hollywood movie actor who also invented modern Wi-Fi.
- Walt Disney started sketching regularly when he was just four years old.
- Abraham Lincoln lost five elections before becoming president of the United States (Never, never, never give up!)
- Pablo Picasso entered art school at the age of 10. The Picasso Museum in Barcelona, Spain, contains many "early works" from his childhood.
- Frederick Douglass taught himself to read and write.
- Prior to European contact (which caused the population to decline rapidly), California indigenous tribal groups spoke more than 200 unique dialects.
- Abe Lincoln was a professional wrestler long before he became the 16th President of the United States.
- After landing in Ireland after the first solo Atlantic flight, a farmer asked Amelia Earhart where she was from. When she said America he almost didn't believe him!
- Frida Kahlo made 143 paintings. 55 of them are self-portraits.



- Moon is very hot in the daytime (average 224 degrees Fahrenheit), but very cold at night (average -243 degrees).
- Venus rotates clockwise. The only planet that does this!
- A teaspoon of a neutron star will weigh six billion tons.
- Sally Ride was the first American woman to fly in space on June 18, 1983.
- One million Earths could fit in the sun!
- Even on the plane, a trip to Pluto takes about 800 years.
- Neptune's days are 16 hours long.
- Light takes eight minutes and 19 seconds to reach the Earth from the Sun.



Ahsen Bilen, 6D





Moonflower

The plant is naturally found in Central America, the Caribbean and in the north of South America. These species have white flowers that blossom only a single night. The plant exists only in 13 botanical garden in the world.

Experts at Cambridge University Botanic Garden have been keeping a vigil throughout the week so they don't miss the flowering of the moonlight Cactus, an event that usually starts at sunset and ends by sunrise. The moonflower actually bloomed at around 3 pm on Sunday afternoon and they found out that it was 28 cm long.

The much-desired flower produces a sweet smelling scent that turns sour after only two hours when the plant begins to die.



Medine Ecrin ŞEN and Medine GÖLEBER, 5C



MIRACLE BERRY

It is also called Miracle Berry or Miracle Fruit. It is a plant discovered by European explorer Chevalier des Marchais in the 18th century. On a trip to West Africa in 1725, this explorer noticed that the natives had collected the fruits of this plant, and after eating the fruits of this plant, he realized that everything he ate bitter or sour was temporarily perceived as sweet when he tasted it. Interesting, isn't it?

Zeynep Azra CİMŞİR, 6A

Around one in every 200 men are direct descendants of Genghis Khan. An international team of geneticists has made the astonishing discovery that more than 16 million men in central Asia have the same male Y chromosome as the great Mongol leader.



There are 41 countries that recognize sign language as an official language.



The oceans contain almost 200,000 different kinds of viruses.

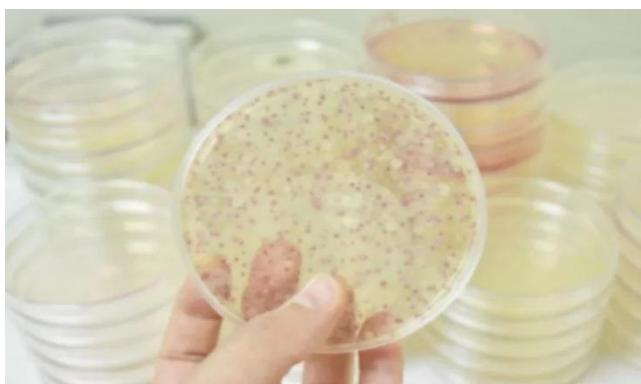


There are more twins now than ever before... Twin births are multiplying, a new study finds. Worldwide, more twins are being born now than ever before. The absolute number of twin deliveries increased by 42% during this period — from 1.1 million twin deliveries in the early 1980s to 1.6 million deliveries in the early 2010s. For comparison, the total number of births worldwide increased by only 8% during the same period.



The Canary Islands are named after dogs, not birds. The chirpy canary bird does come from the Canary Islands. But, the name actually originated from the Latin word for dogs – canaria. Most likely, the name developed from the resident sea lions on the island, which the Romans called sea dogs.

The world's quietest room is located at Microsoft's headquarters in Washington state. This office is the quietest place on the planet. The specially constructed chamber is hidden in the depths of Building 87 at Microsoft's headquarters in Redmond, Washington, where the firm's hardware laboratories are based. Products like the Surface computers, Xbox and Hololens have all been developed here.



There are around 4 quadrillion quadrillion bacteria on Earth. Estimates put bacteria at about four quadrillion quadrillion individuals, which means not only are they, by far, the most populous species in the world, but they also outnumber all other animal populations combined.



More than 52 percent of the world's population is under 30 years old.



People 60 years and older make up 12.3 percent of the global population.

All giant pandas in zoos around the world are on loan from China. NPR also stated that since most of the current pandas outside China were born after 1984, then technically “all giant pandas outside China are actually on loan from the country.”



Canada has nine percent of the world's forests. With over 347 million hectares (ha) of forest, Canada has 9% of the world's forests. Forests dominate many Canadian landscapes, but cover only 38% of Canada's land area.



There's a website that tracks the world's population in real time.



Zeynep Azra KARADAĞ, 5D



THE BERMUDA TRIANGLE



The Bermuda Triangle is the region in the Atlantic Ocean where many aircraft and ships have disappeared in the past. It is an area that was thought to be magnetic in the past but is now considered to be home to a natural gas resource formed by the effect of ocean currents. This region is described as follows in the circular letter numbered 5720 of the 7th Regional Directorate of the American Coast Guard Organization: "The imaginary place called the Bermuda triangle or devil's triangle is in the Atlantic, on the southeastern coast of the USA, with the very high losses of unexplained ships, boats and planes. The corners of this triangle are considered to be Bermuda, Miami in Florida, and San Juan in Puerto Rico.

This mysterious event, for which no one could provide a satisfactory explanation

for many years, was thought to be the "work of some supernatural powers" by many scientists. Here are some explanations; the lost continent of Atlantis was found there (it took the name of the Atlantic Ocean in parallel with this idea) and the Lost Continent was the reason for the technological and magnetic loss that were never understood, and a magnetic field is created there by the extraterrestrials in that region. It has been claimed that even in the diaries kept by Christopher Columbus, unidentified objects flying in the sky in that region were mentioned. On the other hand, there have been some who attributed the events such as sudden air changes, methane gas output, tidal waves, and hot water current. The last claim made about this mysterious triangle came out with the claim that took long years of research gave a result a few years ago. According to this last claim, all these mysterious events were actually a simple matter of natural gas.

Natural gases gushing from underground emerge not only from high land parts but also from sea and ocean floors. Because the sea floors are also low land parts

covered with water. However, natural gases that want to escape from the deep regions of the oceans turn into a solid state with the effect of the very low temperature there and become a white and chalky substance called "hydrate". After the robot cameras, which can dive very deep, have illustrated the snow-white ocean floor and some shipwrecks in this region, the following scientific explanation has been made: This region is the place where the hot water stream called the Gulf Stream also passes. Because of the sometimes heating of the base, these "chalk gases" melt and rise towards the surface as they are lighter than water. At that moment, the density of the water decreases from the bottom to the surface. Whatever passes through at that time, quickly reaches the bottom of the ocean, as if falling into a deep well. Because the density of the water decreasing, it cannot create the buoyancy to carry the ships. When the rise of the gas ceases, the density returns to its original state and the huge ships are buried for miles without any traces.

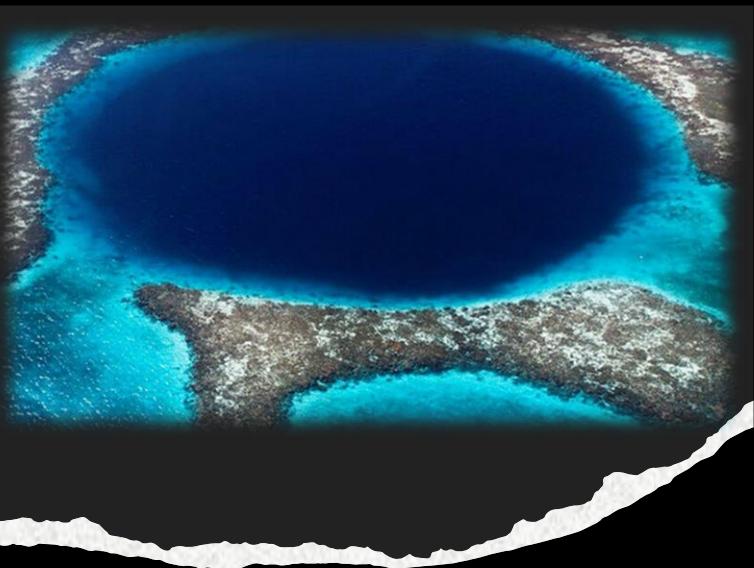
The falling and disappearing of planes has also the same reason. Natural gases coming to the surface continue to rise because they are lighter than air. This time the density reduction occurs in the atmosphere above the region. An airplane with a jet engine or propeller passing by coincidentally immediately loses altitude and its engines stop. Because, oxygen is needed for the combustion of gasoline in jet engines, and the amount of oxygen in low-density air is not sufficient for engines to operate. In a propeller plane, the buoyancy force acting on the plane to stay in the air decreases due to the decrease in the density of the air. Thus, the plane descends rapidly towards the ocean floor.

Elif Rana EKİNCİ, 5B





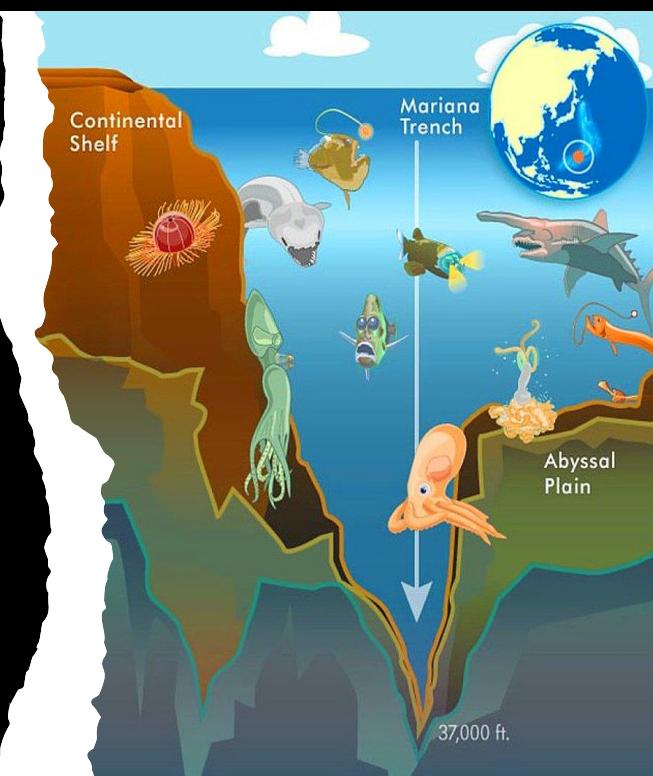
MARIANA PIT



How did it come about? The Mariana Trench was formed when the Pacific Plate fell under the Philippine Plate, where the Pacific and Philippine plates collided as a result of plate movements. These two plates are both moving towards the northwest, but because the Pacific Plate moves faster than the Philippine Plate, it enters under the Philippine Plate and creates a constant pressure and this pressure causes frequent earthquakes in the region.

Discovery of the Mariana Trench and Subsequent Landings

In 1951, Challenger Deep, the deepest point of the Mariana Trench, was discovered. The ship named HMS Challenger II measured a depth of approximately 11 km in the Mariana Trench with the echo-sounder. This point was named Challenger Deep after the name of the ship. The first manned landing to the deepest point of the earth was made by Jacques Piccard and Don Walsh in 1960 with the submersible named Trieste. The descent with this submersible, which was specially designed to withstand a pressure of about 11 km, takes 5 hours, but due to a crack in one of the outer glass due to high pressure, they can only stay at the bottom for 20 minutes. Fortunately, the inner glass withstands pressure, or the first manned landing attempt on the Challenger Deep would have ended in a disaster. During this 20-minute period, unfortunately, they cannot take any photographs because the sand at the bottom rises and creates a cloud of dust, but they see a fish they think is a flounder and thus, "Could there be life at that depth?" gets an answer to the question.



Life in the Mariana Trench

So can you imagine the pressure at a depth of about 11 km in the Mariana Trench? 1.086 bar, exactly! It's a little hard to imagine. Well, can it live at such high pressure? This question, which has puzzled scientists for years, was somewhat enlightened when J. Piccard and D. Walsh, who landed in the Challenger Deep with a batiscaph named Trieste in 1960, had seen a flounder-like creature. They were not able to obtain images, but it was now known to be alive in the Challenger Deep. So how is this possible at such high pressure? Since calcium can only be found dissolved under 1.086 bar pressure, the bones of a vertebrate creature would collapse. For this reason, only creatures that are able to adapt to this high pressure and that are not literally vertebrates can survive in the Mariana Trench. The fish known to inhabit the deepest is *Pseudoliparis amblystomopsis*, a species of snailfish. These fishes living at 7,700 m and seen at 8,145 m roam in groups. In addition, during the landings made to the Mariana Trench, rat tail species living around 5,000 m, single-celled xenophyophores with a size exceeding 10 cm, giant amphipods (shrimp-like crustaceans) around 6,000 m were found - normally amphipods are about 2, 5 cm in size. During James Cameron's expedition and other landings in recent years, a new species of sea cucumber and over 68 new species, most bacteria and some amphipods, were discovered. It is among the comments made by scientists that these creatures may have adapted to life at that point in the region rich in minerals because it is on the border of the plate.



Azra Nur ATMACA, 5B



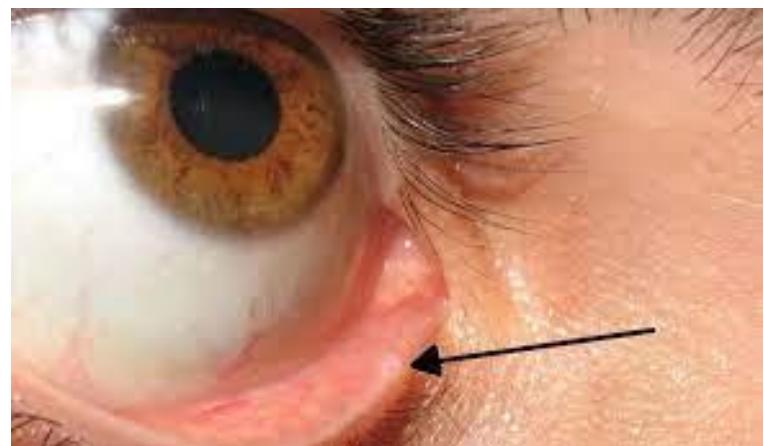


There is an enzyme called 'Lysozyme' in the tear. It has the ability to kill 95% of the bacteria found in the world. Good and beneficial for you to cry even when you aren't sad.



Crocodiles shed tears as a result of moistening their dry eyes when they come out of the water or as a result of the air trapped in their sinuses while eating their prey. So this has nothing to do with sadness.

Tear hole indicated by the arrow, is the exaco spot our tears are running from.



Crying is an action that occurs when the brain and tongue cannot describe the pain felt.

This white semicircle on your fingernails indicates that you are actually healthy. The disappearance of this semicircle is a sign of mental health problems.



Ecrin BAŞ, 7A



The Great Wall of China



- It was constructed in Henan city of the Vhu Kingdom. However, in the beginning, its length was not as long as it is today. Afterwards, as the Mongol and Tunguz attacks started to increase over the years, the Chinese emperor of the period, Qin Shin Huang, who was disturbed by the attacks, started the construction of the walls in the 3rd century BC in order to gain the quality of a "wall that cannot be transcended". It is rumored that the main reason was to prevent Turkish invasions from the north.
- The Great Wall of China took more than 20 centuries to complete.
- It is one of the most popular tourist attractions in the world.
- It has been described with different names for years. It has many names such as barrier, castle, arch.
- Although the wall lasted more than 20 centuries, the first European visitor saw the Great Wall of China in 1605 by Portuguese explorer Bento Gois.
- It is said that there are human bones in the mortar used in the construction of the Great Wall. Of course, this is not true. The construction of the wall consisted of materials such as soil, plastic, wood, brick, clay and lime that could be found under the conditions of that time.
- Not all parts of the Great Wall are well preserved.
- The official completion date of the wall is 1644. Also, this date is the date the Last Ming Emperor was deposed.
- Although it is not known to be true, it is said that 8,000 people worked in the construction of the Great Wall.
- It is known that the Great Wall of China is the longest cemetery in the world.

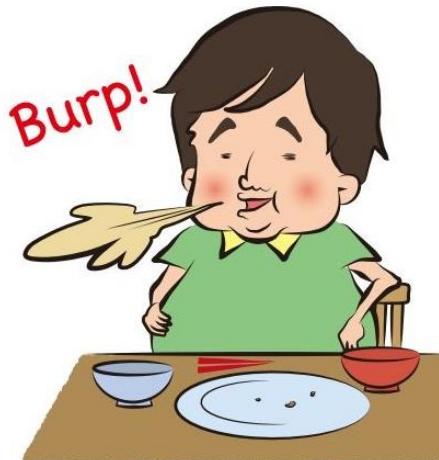
Ebrar BAHÇECİ, 5B





DIFFERENT NATIONS, DIFFERENT TRADITIONS

When you go abroad, it is useful to know the traditions of different nations. Here are some examples of these traditions. Try to keep them in your mind, it may help you one day.



- ❑ In China, If you are satisfied with your meal, you can show it with a silent burping.



- ❑ Japanese people keep home slippers called "uwabaki" for their guests.

For the Japanese, it is disrespectful to walk around someone's house barefoot.



- ❑ In addition to uwabaki, there is another Japanese tradition known as 'harakiri'. Some Japanese kill themselves in order to protect their honour.

- ❑ In Denmark, cinnamon is poured over unmarried youths who are 25 years old. If they are celebrating their 30th birthdays as single, pepper is poured on them.



- ❑ If you ask Swedish to describe Sweden with one word, "lagom" might be the word you will hear the most. Lagom means enough for everyone. It's about being balanced and fair.

- ❑ In Philippines they greet elder people by touching their foreheads to the elder's hand. And they call it 'Mano Po'.



- ❑ In Spain, shops are closed between 2 and 4 pm because people sleep in the afternoon, and they call it 'La siesta'.

- ❑ In Thailand pregnant women dress differently for every day of the week. They dress in red on Sundays as it is the day of God Surya, and light blue on Fridays as it is the day of the god Shruka.

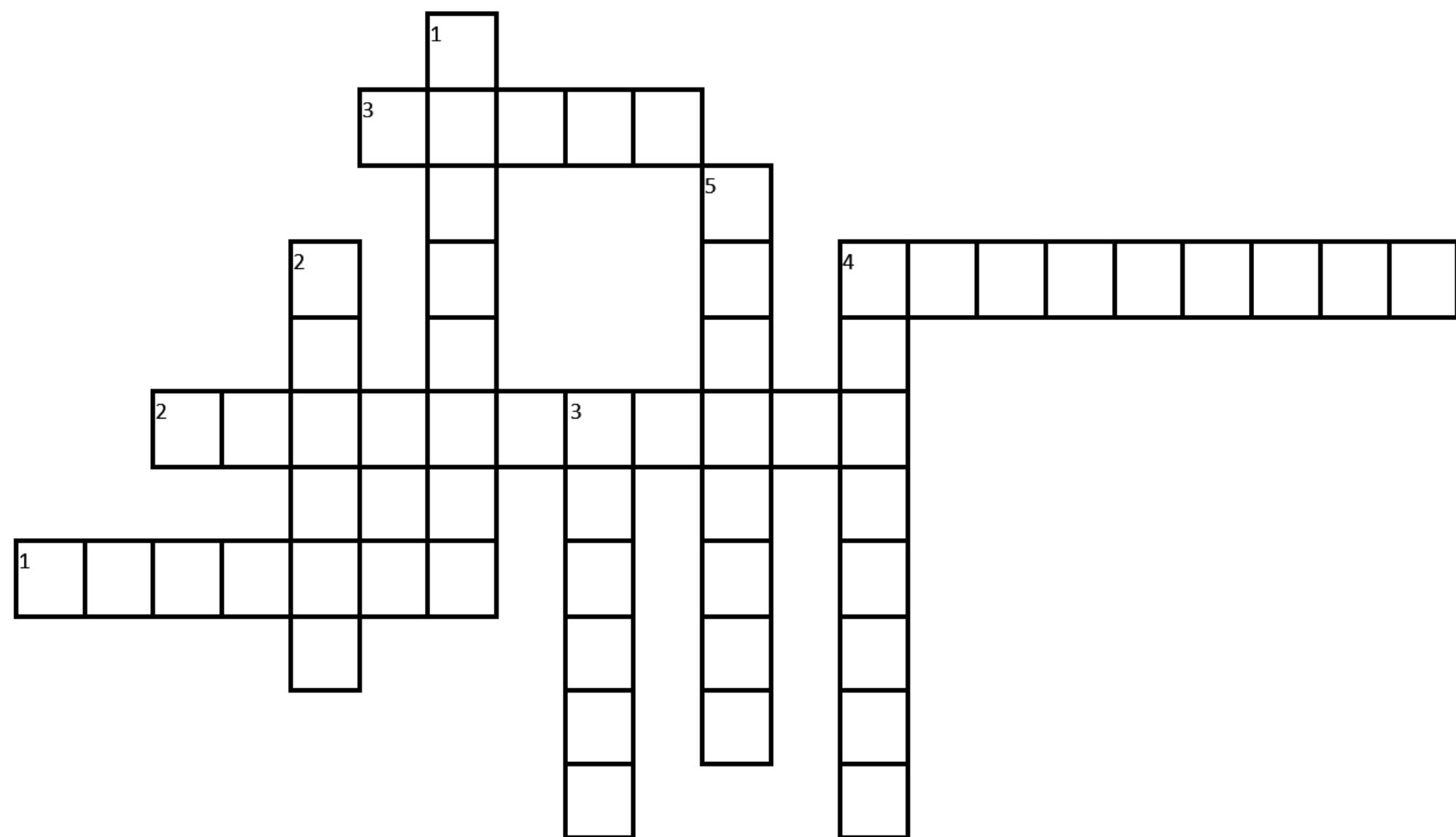
➤ Don't forget to do the puzzle on the next page!

Yaren DELİKTAŞ, 9B



DIFFERENT NATIONS, DIFFERENT TRADITIONS

PUZZLE TIME



DOWN

1. Killing yourself for the sake of honor in Japan.
2. The day Thais wear light blue as it is the day of God Shura.
3. What is poured over the 30-year-old singles in Denmark.
4. What is called the afternoon sleep habits of Spanish people.
5. What is poured over the 25-year-old singles in Denmark.

ACROSS

1. The name of the Japanese home slippers for guests.
2. The country where Mano Po tradition is common.
3. Sweden's tradition of being sober and fair.
4. The color of the Thai clothes which is worn by pregnant women on Sundays, the day of the god Surya.

Yaren DELİKTAŞ, 9B





THE LEGEND OF FAIRY CHIMNEYS

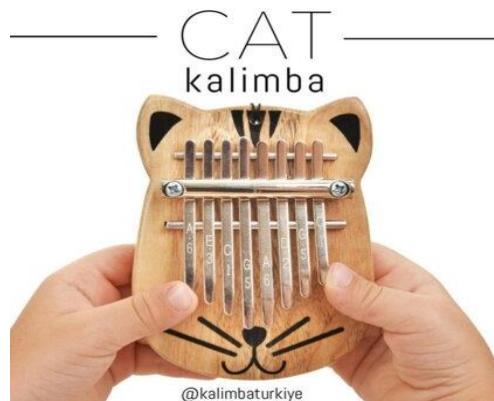
Have you ever heard about the legends of Fairy Chimneys? It doesn't matter if your answer is yes or no. I believe that you will enjoy this story a lot. Fairy Chimneys are in amazing shapes. You may have seen them on TV or in a book before. They are about 1-1,5 meters tall and look so impressive. In my opinion, you would want to go there after reading their legends.

One of the most famous legends is about scary giants that lived there before. The giants were as tall as a mountain and would throw fire waves from the top of the mountains over people when they were angry with them. Therefore, people got tired and decided to get rid of them. All people were praying for the giants not to give any harm to them. One day, the king of Fairy Land happened to pass by Cappadocia. He saw how people were suffering because of those giants and felt sad, so he decided to help the people. He called out all fairies for help. He told the fairies "You are expected to scare the giants! Kidnap and lock them up underground." After that, thousands of fairies took ice and snowflakes into their hands and they attacked the giants. For days and days, they threw ice and snowflakes without stopping. Finally, they succeeded in extinguishing the fire. Therefore, the giants were scared, and they escaped to underground. After that day, a great friendship began between people and fairies. It has been said that whenever a person carved out the rocks to make a cave to live in, fairies start to live with him in small rooms on the rock hills.

Dilara İPEK, 9D

KALIMBA

Kalimba is an African instrument which is played by pressing metal keys with thumbs. Nowadays, the most preferred is 17-key kalimba. Kalimbas are usually made from mahogany trees because this tree is stronger.



Kalimba prevents stress. It also trains the right brain and the left brain at the same time. Playing kalimba is easier than the other instruments. People can learn it in a few days.

There are a lot of kinds of kalimbas. Transparent kalimba, cat kalimba, pro kalimba, maxi kalimba ...



You can take your kalimba everywhere. It is comfortable to travel with your kalimba. It's not too big.

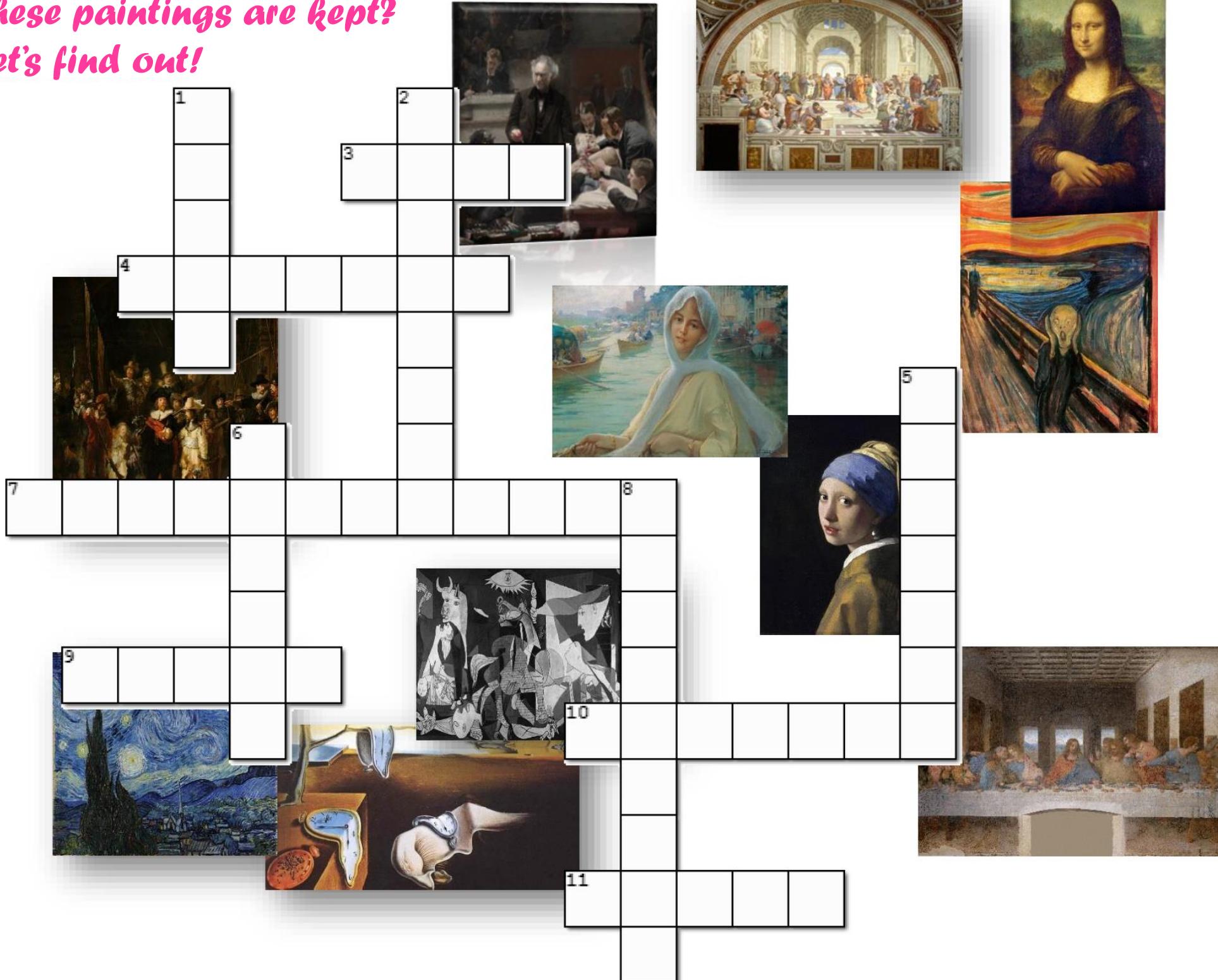


Asyanur Aybike ATAMAN, 7B



Let's have some fun!

What are the names of the cities where these paintings are kept?
Let's find out!



Across

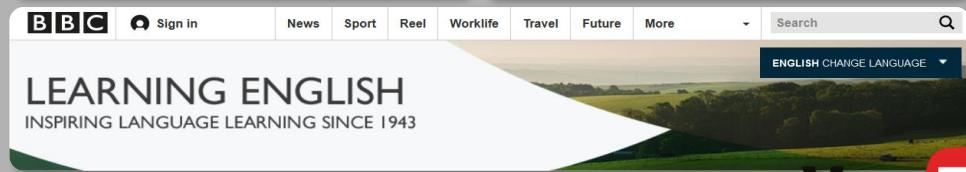
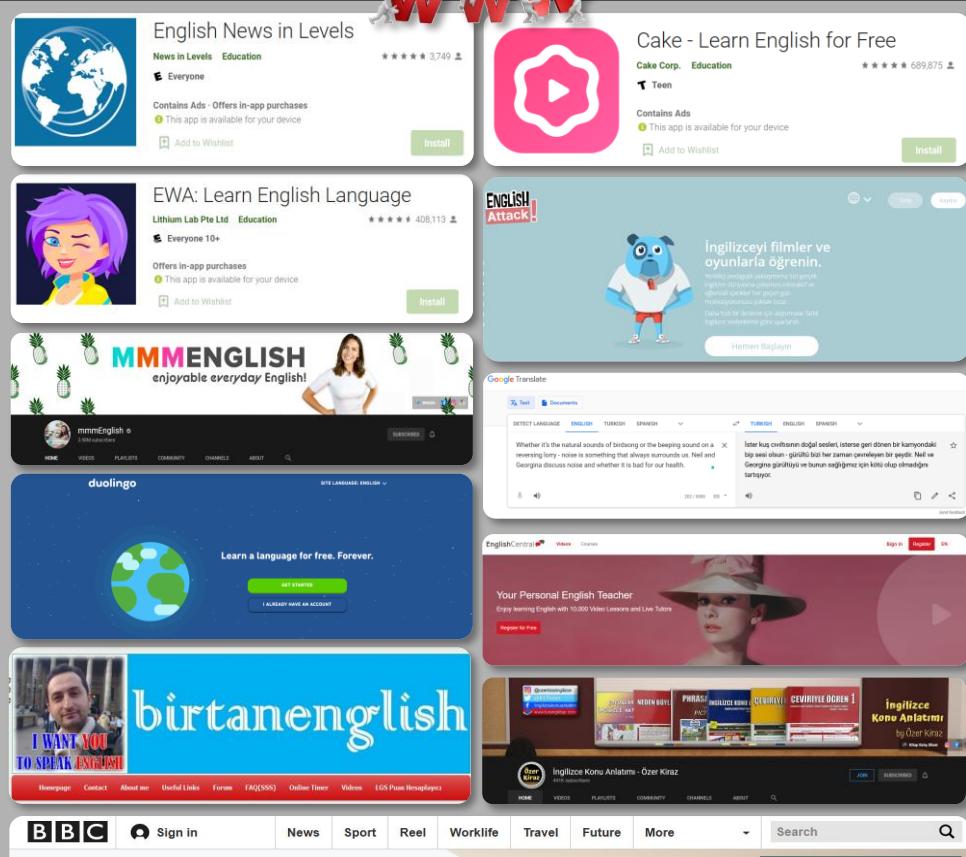
3. The Scream
4. The School of Athens
7. The Gross Clinic
9. Mona Lisa
10. Starry Night
11. Girl With A Pearl Earring

Down

1. The Last Supper
2. Göksu Delight
5. Persistence Of Memory
6. Guernica
8. The Night Watch

Dilara İPEK, 9D





Language learning is a long but rewarding process. You cannot learn a language fully just by attending your class and studying your English textbooks. You need to live the language if you want to improve quickly. As I often say «**there's no teaching, there's only learning**». This has been my motto in my entire life. Learning is an individual, inner process in which you only need «**you**», no one else. A teacher is just a motivator, nothing more. A good teacher is someone who encourages you to learn. If the language you want to learn is something that you only encounter in your language class, you will not improve much. That's been my observation during my language teaching years. I've seen that students who use the target language in their daily lives often and naturally, tend to get better in a shorter time and with much less effort. You might ask «**How am I supposed to use the language on a daily basis if no one around me speaks the language?**». Well, if you had asked that about 25-30 years ago, I would have said that you were partly right. But you're not living in the 80s or 90s. You're generation Z. You were born into the age of the Internet, smartphones, and computers. Nothing is far, and nothing is unreachable at this time. You can listen to any kind of music, watch any foreign TV channel or video, play online games with people from different parts of the world, find any kind of book online and you can do all these in any language you need. And, if English is your target language, you're luckier than the others because 90% of the information on the Internet is in English. So in order to help you in your English learning adventure, I have put together some useful websites and YouTube channels that I've been following. I hope you would benefit from them as well as I do.

BK

