



Erasmus+

THERE IS SOMETHING NEW UNDER THE SUN



GYMNASIUM WALDKRAIBURG, WALDKRAIBURG, GERMANY

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EINFLÜSSE DER ASTRONOMIE IN DER HEUTIGEN ZEIT

Man meint oft, die Astronomie hat kein Einfluss auf unser heutiges Leben. Doch schon in den Namen der Wochentage kann man fast alle Planeten entdecken.

- **Sonntag:** Gemeint ist die Sonne, das wichtigste Gestirn in unserem Sonnensystem. Ohne die Sonne gäbe es kein Leben. Deswegen benutzten viele Kulturen den Namen der Sonne, um einen Tag zu benennen.

- **Montag:** Namensgeber ist der Mond. In vielen Kulturen war der Mond ein wichtiges religiöses Symbol und damit Namensgeber für einen Tag.

- **Dienstag:** Im Französischen heißt dieser Tag „mardi“. Dieser Name leitet sich vom Mars ab, dem vierten Planeten und dem römischen Kriegsgott.

- **Mittwoch:** Durch das französische Wort „mercredi“ kann man auf Merkur schließen. Das ist der erste Planet im Sonnensystem. Außerdem war das der Name des römischen Götterboten.

- **Donnerstag:** Im Französischen heißt dieser Tag „jeudi“, der Name des größten Planeten und des wichtigsten Gottes für die Römer: Jupiter.

- **Freitag:** Der französische Name lautet „vendredi“. Hier ist die römische Göttin der Liebe gemeint: die Venus. Das ist auch der Name für den zweiten Planeten in unserem Sonnensystem, dem hellsten Licht in der Nacht nach dem Mond.

- **Samstag:** Hier können wir den Namen der Gottheit und des Planeten Saturn im englischen Wort „Saturday“ finden. Er ist der zweitgrößte Planet im Sonnensystem. Für die Römer war es der Name ihres Gottes der Aussaat.

Die ersten beiden Tage wurden nach den wichtigsten und hellsten Objekten im Sonnensystem benannt.

Die anderen Tage wurden nach römischen Gottheiten benannt. In einigen Sprachen, im Englischen und Deutschen zum Beispiel, blieben jedoch die Namen der Kelten erhalten und nur einige altrömische Namen setzten sich durch. Die anderen Planeten, Uranus und Neptun, sind bei der Namensgebung unerwähnt geblieben, weil die Römer sie noch nicht kannten. Als die Himmelskörper entdeckt wurden, benutzten die Astronomen ebenfalls die Namen der römischen Götter.

ASTRONOMY TODAY



People often think that astronomy has no influence on our life. But even the days of the week are linked to the universe.

Sunday: The day of the sun; the most important planet in our solar system. Without the sun, life would not exist. So many ancient cultures (in Greece, Rome and Egypt) named the first day of the week after the sun.

Monday: The day of the moon. The moon was an important religious symbol for a lot of cultures – therefore Monday.

Tuesday: The French translation for Tuesday is "mardi". This name is derived from Mars, the fourth planet of the solar system. It is the name of the Roman god of war.

Wednesday: This day is called "mercredi" in French. This is the first planet of the solar system. Mercury is the messenger of the gods in Roman mythology.

Thursday: In French, you say "jeudi". This name refers to the biggest planet of our solar system. Jupiter is the highest god in Roman mythology.

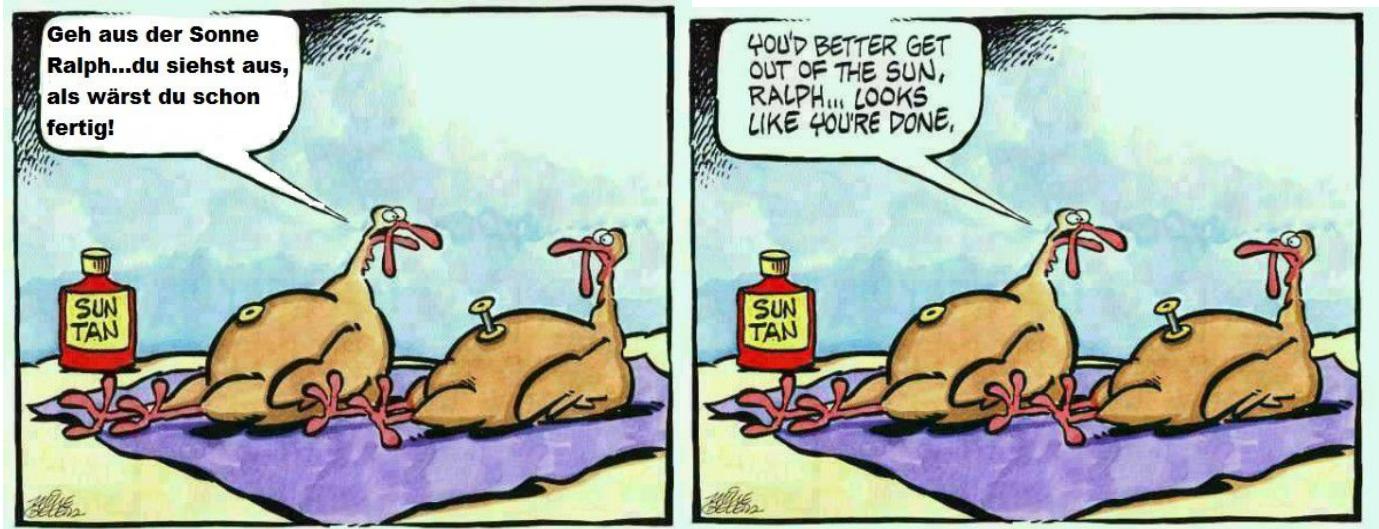
Friday: The French say "vendredi", and we talk about the goddess of love: Venus - the second planet of our solar system. It is the brightest star in the sky.

Saturday: Now, the English language is of help: Saturn - the Roman god of agriculture and the second largest planet of our solar system.

The first two days of the week were named after the most important and brightest objects of the solar system.

The business days were named after Roman gods. But in many languages, like German and English, we mostly have the Celtic names for those gods.

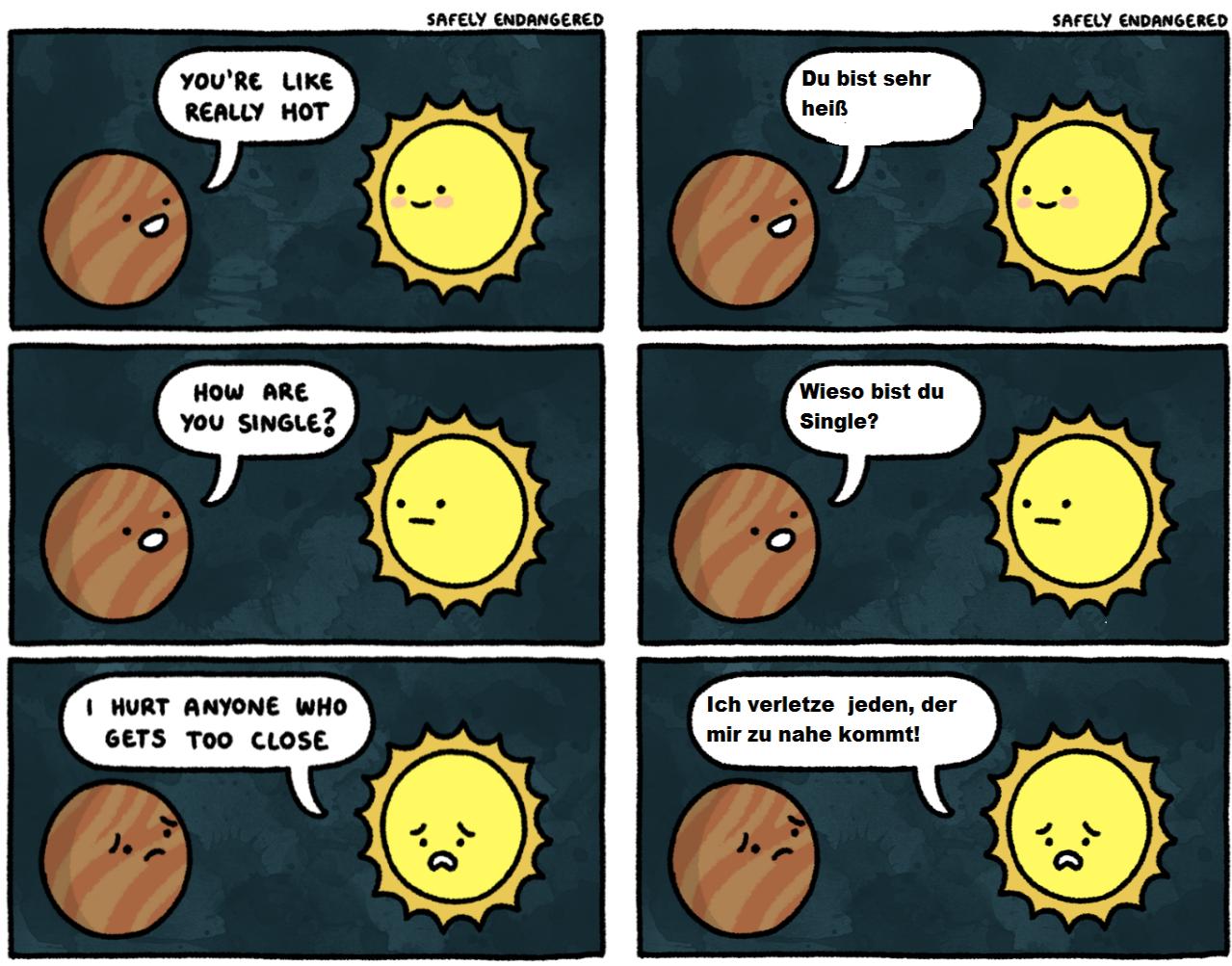
The other planets Uranus and Neptune, were unknown to the Romans, therefore we cannot find them in the days of the week. After those planets had been discovered, astronomers gave them the names of roman gods.



10 DINGE, DIE SIE ÜBER DIE SONNE WISSEN SOLLTEN!



1. Ohne die Sonne wäre ein Leben auf der Erde nicht möglich!
2. Der Durchmesser der Sonne beträgt 1.390.400 km!
Wäre sie ein Gymnastikball, würde die Erde daneben eine Kirsche sein.
3. Die mittlere Entfernung von uns zur Sonne liegt bei 149,6Mio. km!
4.80% unserer Falten entstehen angeblich aufgrund der Strahlung der Sonne!
Also: Wer keinen Bock auf Botox hat, besorgt sich am besten mal 'nen Sonnenschirm!
5. Die Energieabstrahlung der Sonne beträgt 384 Trillionen Megawatt!
Wir hätten ohne Sonne nach einer Woche also nur noch eisige -18°C Durchschnittstemperatur auf unserer Erde.
6. 1 qm Sonne leuchtet heller als 1 Mio. Glühbirnen! Ziemlich hell! Oder?
7. Die Schwerkraft auf der Sonne ist viel stärker, als die auf der Erde!
So wiegt ein durchschnittlicher Mann auf der Sonne knappe 2Tonnen!
8. Die Sonne wird mit der Zeit immer wärmer und heller!
In 1 Milliarde Jahren herrschen somit vermutlich knapp 10% mehr Lichtstärke
9. Die Sonne besteht aus einem Cocktail aus verschiedenen Stoffen! (72% Wasserstoff, 26% Helium und einigen anderen)
Sie stellt somit 99% der Masse unseres gesamten Sonnensystems dar!
10. Seit es die Menschen gibt, beten sie die Sonne an!
Die Ägypter: Re (oder Ra), die Griechen: Helios, Die Germanen: Sunna oder Sol



10 FACTS YOU HAVE TO KNOW ABOUT THE SUN!



1. Life on earth would not be possible without the sun!
2. The sun's diameter is 1.390.400km!
Would the sun be a Swiss ball, the earth would have the size of a cherry!
3. The middle distance between the earth and the sun is 149,6 Mio. km!
4. It is said that 80% of our wrinkles are caused by the radiation of the sun!
So, if you are not too fond of Botox, buy sunscreem!
5. The quantity of the energy emitting from the sun is 384 trillion megawatts!
Without the sun, the average temperature on earth would be -18°C.
6. One square meter of the sun's surface shines brighter than one million light bulbs! Quite bright, isn't it?!
7. The gravity on the sun is much higher than on earth! So an average man weighs 2 tons on the sun!
8. The sun is getting brighter and warmer! In 1 billion years from now, its light intensity will have increased by 10%!
9. The sun is a cocktail of different elements! (72% hydrogen, 26% helium and others)!
The sun contains 99% of all cosmic matter in our solar system!
10. From the very early beginnings of mankind, people have been praying to the sun.!
The Egyptians: Aton & Ra/Re, the Greeks: Apollo & Helios, Germanic tribes: Sunna & Sol.





L'ESSICCAZIONE DEI CIBI AL SOLE

Nei Paesi del Mediterraneo l'essiccazione al sole è la più antica tecnica di conservazione del cibo e consiste nell'esporre gli alimenti alla radiazione solare facendo diminuire l'acqua al loro interno dell'80-90% per inibire l'azione di muffe e batteri. Questo metodo è anche il più economico ed ecologico (si usa solo energia solare) perché si ottengono cibi da conservare a lungo senza aggiunte di sostanze chimiche o di ingredienti come sale, olio, aceto, zucchero che, anche se naturali, modificano il valore nutritivo e il sapore degli alimenti da conservare. L'essiccazione al sole necessita anche di una leggera brezza, di aria asciutta e di una esposizione al sole per vari giorni. Di notte bisogna coprire o portare in ambienti protetti gli alimenti, per evitare che l'aria fredda della notte porti nuova umidità e rallenti il processo. Questo metodo è molto diffuso anche in Puglia, la nostra regione, per conservare frutta, ortaggi, legumi, funghi, erbe aromatiche mantenendone intatti profumi, sapori e proprietà nutritive. Quale altro metodo più naturale, economico, ecologico e salutare, se non questo?

FOOD SUN DRYING

In the Mediterranean countries, sun drying represents the oldest technique of preserving food and consists in exposing it to solar radiations by reducing its water by 80-90%, in order to inhibit the action of molds and bacteria. This method, which uses exclusively solar energy, is environmentally friendly and absolutely the cheapest one. In fact, it allows to obtain food that can be preserved for long periods without the addition of any chemicals or ingredients such as salt, oil, vinegar, sugar; which, despite being natural, could alter the nutritional value and flavor of the food to be preserved. The sun drying technique also requires light breeze, dry air and a continuous exposure to solar radiations for several days. At night, the food should be covered or put into some well-protected places, to prevent that the cold air of the night could slow down the process. This method is also widespread in Apulia, our region, especially to preserve fruits, vegetables, legumes, mushrooms, herbs without altering their perfumes, flavors and nutritional properties. Could you find a more natural, cheaper, more environmentally friendly and healthier method than this one?

(By Annamaria Cataldi – ITALY)



Photo by Holly A. Heyser



GLI EFFETTI DEL SOLE SULLA PELLE

Molti studi scientifici recenti affermano che l'esposizione al Sole aumenta il rischio di sviluppare tumori della pelle, i melanomi. Il Sole può essere nocivo anche per gli occhi e provoca l'invecchiamento della pelle. D'altra parte l'esposizione solare diminuisce il rischio di sviluppare alcuni tipi di tumori e ha un effetto benefico sull'umore e nella sintesi della vitamina D. L'abbronzatura è una protezione per la nostra pelle grazie alla melanina presente nelle cellule, che ha il compito di proteggerci dai raggi UV oltre a dar colore alla nostra cute. Nonostante questa protezione naturale, i raggi UV riescono a penetrare comunque nel derma e possono provocare danni al DNA, causando in alcuni casi la comparsa di mutazioni e di tumori. I soggetti più a rischio sono quelli che hanno capelli, occhi e pelle chiara, quelli con una predisposizione genetica ed infine coloro che hanno lentiggini o nei particolari: è importante fare dei controlli medici perché potrebbero trasformarsi in cellule tumorali. Dobbiamo quindi rinunciare al piacere di esporci al sole? Certamente no, purché lo si faccia con moderazione usando sempre creme solari con altissimo fattore di protezione.

SOLAR EXPOSURE

Many recent scientific studies affirm that solar exposure increases the risk of developing melanomas. The Sun can be dangerous for the eyes and it can provoke skin aging. On the other hand, solar exposure reduces the risk of developing some types of tumors and has a positive effect on the humor and on the synthesis of vitamin D. Tanning represents a protection for our skin thanks to the melanin present in our cells, protecting us from UV rays, apart from coloring our skin. Despite this natural protection, the UV rays penetrate into the skin and they can provoke some damages to the DNA, causing in some cases the appearance of mutations and tumors. People with clear hair, eyes and skin, with a genetic predisposition and finally those having some kinds of spots or freckles are more at risk: it is important to have regular medical check-ups because they could transform into cancer cells.

So, do we have to renounce to the pleasure of solar exposure. Certainly not, provided that we expose to solar radiations moderately, always using solar creams with elevated factors of protection. (By Melissa Coviello - ITALY)





IL GIRO DEL MONDO DEL SOLAR IMPULSE

E' partito per il giro del mondo il Solar Impulse, l'aereo a energia solare alimentato da 17.248 celle solari. La sua realizzazione è stata il frutto di un accurato lavoro del Politecnico di Losanna, in Svizzera. L'aereo solare, decollato da Abu Dhabi il 9 marzo, tornerà alla base fra 5 mesi dopo aver percorso 35.000 km intorno al mondo. Come funziona il Solar Impulse? Durante il giorno l'aereo sale ad un'altitudine di 10.000 metri per ricaricare le batterie solari, per poter rimanere in volo tutta la notte. Il tratto più impegnativo del percorso sarà il volo non-stop di cinque giorni e cinque notti attraverso l'oceano Pacifico. Il volo del Solar Impulse è un importante test per quello che riguarda l'innovazione tecnologica nel campo delle energie rinnovabili e, nelle intenzioni dei piloti Bertrand Piccard e André Borschberg, potrà servire a convincere i governi del mondo a investire in futuro sulle energie pulite e sostenibili. Sarà possibile seguire questa straordinaria avventura in streaming e sui social network Facebook e Twitter.

AROUND THE WORLD: SOLAR IMPULSE

Solar Impulse, the solar plane powered by 17,248 solar cells, has started the round of the world. Its creation was the result of the careful work of the Technical University of Lausanne, Switzerland. It took off from Abu Dhabi on 9th March and will return to the base in five months after travelling 35,000 kilometers around the world. How does Solar Impulse work? During the day the plane reaches the altitude of 10,000 meters to recharge the solar batteries. The most difficult part of the route will be the non-stop flight of five days and five nights through the Pacific Ocean.

The flight of Solar Impulse is an important test to prove the technological innovation in the field of renewable energy and, according to the pilots Bertrand Piccard and André Borschberg, it will help to convince the governments of the world to invest more in clean energy and sustainability. You can

follow this extraordinary adventure in streaming and on social networks such as Facebook and Twitter. (By Tatiana Gjeci – ITALY)





I TRULLI: UN ESEMPIO DI ARCHITETTURA BIOCLIMATICA

I trulli sono un esempio di architettura mediterranea, le cui origini sembrano risalire alla Preistoria. Sono presenti solo in Puglia, soprattutto nella Valle d'Itria e ad Alberobello. I trulli erano, e sono ancora, abitazioni contadine costruite a secco, dipinte di bianco per riflettere la radiazione solare e caratterizzate da un tetto conico ricoperto da pietre calcaree incastrate con maestria. La moderna architettura bioclimatica ha rivalutato e studiato queste abitazioni perché sfruttano come risorse le caratteristiche morfologiche e climatiche del luogo, impiegano materiali locali (la pietra calcarea) e utilizzano le risorse rinnovabili (la radiazione solare) per regolare la temperatura interna. La funzione termoregolatrice nei trulli è dovuta ai muri in tufo calcareo, molto spessi (da 100 cm. a 250 cm), alla struttura del tetto conico, che trattiene molto calore durante il giorno per poi disperderlo durante la notte e alle caratteristiche dei materiali, che permettono di mantenere all'interno un microclima confortevole in ogni stagione dell'anno: fresco d'estate e mite d'inverno. Dal 1996 i trulli sono stati dichiarati patrimonio mondiale dell'umanità dall'UNESCO.

TRULLI: AN EXAMPLE OF A BIOCLIMATIC ARCHITECTURE

The Trulli are an example of a spontaneous Mediterranean architecture, whose origins seem to date back to prehistoric times. These unique structures are present exclusively in Apulia (in the South of Italy), especially in the Valley of Itria and Alberobello. They were, and still are, drywall peasant dwellings painted in white to reflect solar radiations and characterized by a conical roof covered with limestone slabs skillfully corbelled. Modern bioclimatic architecture has appreciated and studied the Trulli since they exploit as invaluable resources the morphological characteristics and the climate of the place, employing local materials (limestone) and using renewable resources (solar radiation) to adjust internal temperature. Their thermoregulatory function is due to the walls made up of very thick calcareous tufa (from 100 cm. to 250 cm), to the conical roof (able to keep a lot of heat during the day and to disperse it at night) as well as to the characteristics of the materials, which allow a comfortable microclimate inside in every season of the year: fresh in summer and mild in winter. Since 1996, Alberobello, with its Trulli has been declared as World Heritage by UNESCO. (By Francesco Loragno - ITALY)





BEYKENT DOĞA ANADOLU LİSESİNDEKİ ERASMUS+ GURURU AN ERASMUS+ HONOUR FROM BEYKENT DOGA ANATOLIAN HIGH SCHOOL

106 kampüsü ve inovatif yapısı ile eğitime liderlik eden Doğa Okulları'ndan Beykent Doğa Anadolu Lisesi Almanya koordinatörlüğünde gerçekleştirilen "SUN-S(un),U(nity),N(ature)" Projesine katılmadan gururunu yaşamaktadır. Ulusal Ajans tarafından 18.500€ ile ödüllendirilen proje kapsamında öğrenci ve öğretmenler Almanya, Finlandiya, Lüksemburg, İtalya ve Fransa ortaklığı ile projelerini hayata geçirermektedirler. Proje kapsamında öğrenciler güneş kaynaklarının etkili ve doğru kullanımı üzerine birçok çalışma gerçekleştirmektedirler.

Projeye dahil olan öğrencilerimiz farklı kültürleri tanıma fırsatı bulurken aynı zamanda diğer dünya dillerini tanıma fırsatı da bulmaktadır. Bu anlamda Okul Müdürü Ebru ERDOĞAN ile Proje Koordinatörü Ali Batuhan BARDAKÇI, Almanya'da katılımcı okulların sorumluları ile gerçekleştirilen olan ilk uluslararası kongreye katılmışlardır.

With 106 campuses and innovative structure, Beykent Doga Anatolian High School from Doga Schools, which leads to education, burst with pride of joining to the Project of "SUN-S(un),U(nity),N(ature)" brought about by the coordination of Germany. Teachers and students carry into effect their project with the partnership of Germany, Finland, Luxembourg, Italy and France also the project has funded by National Agency with 18.500€. Within the context of the project, students bring about many tasks related with sun sources and the right use of them.

Students who are enrolled into the project have a chance to meet not only new cultures but also the languages of the world. In this case, the principle Ebru ERDOĞAN and project coordinator Ali Batuhan BARDAKÇI have attended to the first international meeting done in Germany.





ERASMUS+ PROGRAMI ALTINDA İLK HAREKETLİLİĞİMİZ: ALMANYA UNDER ERASMUS+ OUR FIRST MOVEMENT: GERMANY

Beykent Doğa Anadolu Lisesi olarak yürütmekte olduğumuz SUN Erasmus+ Projesi kapsamında ilk ulusal toplantımızı Almanya'nın Waldkraiburg şehrinde Gymnasium Waldkraiburg ile gerçekleştirdik. Toplantıya Almanya, Finlandiya, Lüksemburg, İtalya ve Fransa'dan partner okullarımızın öğretmenleri ve idarecileri katılım sağladılar.

As Beykent Doga Anatolian High School we have completed our first movement to Germany in Waldkraiburg, Gymnasium Waldkraiburg within the scope of SUN Project that we carry on. Teachers and administrators of our partner schools from Germany, Finland, Luxembourg, Italy and France have attended to the meeting.

ALMANYA'DAN MUHTEŞEM KARŞILAMA MAGNIFICENT WELCOME FROM GERMANY

Ev sahibi okulumuz Gymnasium Waldkraiburg müdürü Joachim Hellwig yaptığı açılış konuşmasında bizleri selamladı ve sorunsuz bir proje dönemi geçirmemizi diledi. Yapacağımız iki yıllık çalışmalarda işbirliğinin bizlere kazandıracaklarına değinen Hellwig'in ardından okul korosu öğrencileri müzik dinletisi gerçekleştirdi.

The principle of Gymnasium Waldkraiburg (our host school) Joachim Hellwig greeted us in his opening speech and wished to have a trouble-free project term. After Hellwig who mentioned about the gains of collaborating for two years in project, students of school choir performed their music recital.





WALKKRAIBURG BELEDİYE BİNASI - DIE STADT WALDKRAIBURG RATHAUS WALDKRAIBURG TOWN HALL - DIE STADT WALDKRAIBURG RATHAUS

Waldkraiburg belediye başkanı Sayın Robert Pötzsch SUN projesi ortaklarını belediye binasında ağırladı. Projeye emek eden değerli öğretmenlere sonsuz teşekkürlerini ileten Pötzsch, projeye katılım sağlayacak öğrencilere ise güneşin en önemli ve en kullanışlı kaynağıımız olduğunu, bu kaynağın doğru ve en verimli şekilde kullanılması için çalışmaktan vazgeçmemelerini söyledi.

Mayor of Waldkraiburg Dear Robert Pötzsch welcomed the partners of SUN project in town hall. Pötzsch who delivered his infinite thanks to the teachers of the project said to the students that SUN is the most important and usefull source of us and the students should not give up using this source in a right and productive way.





AB PROJELERİ KULÜBÜ SKYPE DERSLERİNE BAŞLADI EU PROJECTS CLUB STARTED TO THE SKYPE LESSONS

Beykent Doğa Anadolu Lisesi AB Projeleri kapsamında öğrencilerimiz partner okullardaki öğrenci arkadaşları ile SKYPE derslerinde buluşarak birbirleri ile kültürel paylaşılarda bulundular. Birbirlerine kendi dillerinde günlük hayat konuşmalarında kullanılan kelimeleri öğreten öğrenciler, ülkelerinin tarihi ve eğitim sistemleri hakkında paylaşılarda bulundular.

Within the scope of Beykent Doga Anatolian High School, our students have shared cultural communions by meeting up in SKYPE lessons. Students taught each other daily words in their native languages and had sharings about the history and educational systems of countries.

SUN PROJESİ İLE ÖĞRENCİLERİMİZ FİNLANDİYA'DA WITH SUN PROJECT OUR STUDENTS ARE IN FINLAND

İlk hareketliliğini Almanya'da gerçekleştirdiğimiz SUN projesinin ikinci hareketliliğinde öğrencilerimiz ile Finlandiya'daydık. Birçok atolye çalışmasına katılan öğrencilerimiz aynı zamanda projenin logosunu seçmek için yarıştılar ve ülkemizde hazırladığımız güneş enerjisi ile çalışan dijital saatyi tanıttılar. Aile yanında kalan öğrencilerimiz, Finlandiya kültürünü yakından tanır iken sıcak dostluklar da kurdular. We were in Finland with our students as a second movement of the SUN project of which first movement held in Germany. Our students attended to many workshops and at the same time they competed in logo competition for choosing the logo of the

project and presented the digital clock which was prepared in our country and works with sun energy. Our students who stayed with families, not only learnt the Finnish culture in a close distance but also setted up warm friendships.



AURINGONPIMENNYS



Kun Kuu liikkuu radallaan Maan ja Auringon väliin, niin että kaikki kolme ovat samalla linjalla, tapahtuu auringonpimennys. Auringonpimennys voi tapahtua vain uudenkuun aikana, jolloin Kuu on Auringon suunnassa. Kuun rata on kuitenkin sen verran kallellaan Maan ratatasoon nähden, että pimennyksiä ei nähdä joka kuukausi, vaan noin joka kuudes kuukausi, kuunpimennyksiä voi nähdä joko puoli kuukautta ennen tai jälkeen auringonpimennyksen.

Auringon- ja Kuunpimennykset toistuvat samanlaisina nk. Saros-jakson välein, jonka kesto on 18 vuotta ja 10,3 päivää. Jakson pituus johtuu Kuun ratatason kaltevuussuunnan jaksollisesta vaihtelusta. Alue, jossa pimennys näkyy täydellisenä, ei kuitenkaan tämän jakson kuluttua satu samalle pituuspiirille.

Osittaista auringonpimennystä ei saa ikinä katsoa paljailla silmillä, sillä sen aikana, Auringon kirkas valo voi vahingoittaa silmiä nopeasti

Maaliskuun 20. päivä 2015, Suomessa näkyi osittainen auringonpimennys.

Kuvaaja: Patrik Åberg © 20.3.2015. Kuopio, Hatsala

SOLAR ECLIPSE

The solar eclipse happens when the Moon moves between the Sun and Earth so all three are aligned. The solar eclipse can only happen during the new moon, when the Moon is in the Sun's direction. The Moon's orbit is tilted in a different angle to the Earth's, which is why the solar eclipse does not happen each month, but approximately every six months.

The solar and lunar eclipses both follow the Saros series. Which is about 18 years and 10,3 days long. The length of the series depends on the moon's orbital inclination. The area where the eclipse is full will not be in the same longitude again.

Do not ever look at the Sun directly during an eclipse unless it is during a total solar eclipse. The bright light of the Sun can damage your eyes very quickly.

On the 20th of March 2015, there was a partial eclipse in Finland.

Photographer: Patrik Åberg © 20.3.2015. Kuopio, Hatsala



MYTHS ABOUT THE NORTHERN LIGHTS

A story about the northern lights

Once upon a time on a cold starlit night there was a fox, somewhere far, far away on the fells in the North. The fox was in a rush because he was late for the annual competition to find out who was the most cunning fox of all. The fox decided to depart from his usual path and take a shortcut across the fells, even though tramping through the snow really would be exhausting. "The greater the effort, the greater the speed", thought the fox, who was well-known for his cunning.

Pure white snow whirled under the paws of the fox as he skipped from one snowdrift to the next. His speed was astonishing. Whenever the fox reached the top of a fell, his bright red fur blazed like a flame against the pitch black sky.

After reaching the peak of the highest fell, the fox was exhausted. He didn't even have the strength to hold up his beautiful fluffy tail anymore. Instead, as the fox dashed forward, his tail dragged along the ground. His pace was so fast that sparks flew from his tail, rising up in the sky like a ribbon of flames.

Finally the fox made it to his destination. As he had been in such a hurry, he hadn't noticed the lightshow his tail had caused. Sparks danced overhead, blazing and changing their hues as a beautiful sea of colours for the joy and wonder of all animals in the North. If you are lucky, you can even see them nowadays, the northern lights, I mean.

According to Finnish folklore, this is the tale of how the northern lights were born. It would be nice to believe in the tale, but maybe the truth is even more fascinating!

Translation by Hatsala classical 9A-class



TARINA REVONTULTEEN SYNNYSTÄ



Olipa kerran kettu, ja kylmä, pimeä tähtikirkas yö jossain kaukana, kaukana Pohjolan tuntureilla. Ketulla oli tulenpalava kiire, sillä se oli myöhässä vuosittaisesta mittelöstä, jossa kilpailtiin kettujen viekkausmestarudesta. Niinpä se päättikin poiketa tavanomaiselta polultaan oikaistaakseen tunturien halki, vaikka lumessa tarpominen varmasti ottaisikin kunnon päälle. "Sen minkä voimassa häviää, sen ajassa voittaa", tuumi repolainen, joka oli viekkaudestaan muiden kettujen joukossa tunnettu.

Vitivalkoinen lumi pöllysi repolaisen tassujen alla, kun se hyppelehti kinokselta toiselle.. Vauhti oli hurma: ketun tavoittaessa tunturilaen toisensa jälkeen sen tulipunainen turkki näytti liehuvan liekinän kimmeltävien kinosten ja sysimustan taivaan rajamailla.

Korkeimman tunturilaen päälle päästyään kettu oli jo aivan puhki .Se ei enää jaksanut pitää upeaa, pöröistä ja juhlakuntoon suittua häntäänsä arvokkaasti asennossa, vaan häntä iskeytyi maahan ketun eteenpäin viilettäessä. Vauhti oli niin kova, että hännän huiskiessa tuntureita siitä sinkosi kipinötä, jotka pitkänä nauhana kiemurtelivat samantien taivaalle.

Lopulta kettu ehti määäränpähänsä, mutta sillä ei ollut kaiken kiireen keskellä aavistustakaan aiheuttamasta suuresta valonäytelmästä: kipinät tanssivat taivaalla, muuttivat väriään ja leimusivat upeana valomerenä kaikkien pohjoisen eläimien riemuna ja ihmetyksenä. Siellä niitä voi nähdä nykyäänkin, jos oikein hyvin onnistaa – revontulia, nimittäin.

Erään vanhan suomalaisen uskomuksen mukaan revontulet syntyvät suunnilleen edellä kuvatun tarinan mukaisesti. Tarinaan olisi varmasti mukava uskoa, mutta ehkä vielä ihmeellisempi on totuus revontulista: ne syntyvät nimittäin Auringosta lähtevien hiukkasten saapuessa lähelle maapalloa!

SUN IN AMERICAN INDIAN CIVILIZATION



Native Americans or American Indians (sometimes, erroneously called Indians, Indians being the inhabitants of India), or native Americans, as claimed by some tribes, are the inhabitants of America before European settlement of America.

NAVAJO

Kachina Dancer Statue Sun, handmade by a Navajo artist. This Kachina symbolizes the benefits of sunshine that brings warmth and comfort to the elderly. It is also the promise of a bright future for the young. Indians pray for rain and good harvests, good health and enough game. During religious ceremonies the Kachina dancers appear in physical form (eagle, buffalo, corn, sun ...) and send the prayers of humans to gods.



LE SOLEIL DANS LA CIVILISATION AMERINDIENNE

Les Amérindiens, ou Indiens d'Amérique (parfois ; par erreur, Indiens tout court, les Indiens étant les habitants de l'Inde), ou encore Américains natifs, comme revendiqué par certaines peuplades, sont les habitants d'Amérique avant la colonisation européenne des Amériques.

NAVAJO

Statuette danseur Kachina Soleil, faite à la main par un artiste Navajo. Ce Kachina symbolise les bienfaits du soleil qui apporte chaleur et réconfort aux plus âgés. Il est aussi la promesse d'un avenir radieux pour les plus jeunes.

Les Indiens prient pour avoir de la pluie et des récoltes abondantes, une bonne santé et suffisamment de gibier. Lors des cérémonies religieuses les danseurs Kachinas dansent apparaissent sous une forme physique (aigle, bison, maïs, soleil...) et transmettent les prières des humains aux divinités.



THE SUNDANCE

The Sun Dance is a ceremony practiced differently by several North American Indian Nations, but many of the ceremonies have features in common, including dancing, singing and drumming, the experience of visions, fasting, and, in some cases, self-torture.

The Sun Dance was the most spectacular and important religious ceremony of the Plains Indians of 19th-century North America, ordinarily held by each tribe once a year usually at the time of the Summer Solstice. The Sun Dance last from four to eight days starting at the sunset of the final day of preparation and ending at sunset

It showed a continuity between life and death - a regeneration. It shows that there is no true end to life, but a cycle of symbolic and true deaths and rebirths. All of nature is intertwined and dependent on one another. This gives an equal ground to everything on the Earth.

The Native American tribes who practiced sun dance were:

The Arapaho, Arikara, Asbinboine, Cheyenne, Crow, Gros Ventre, Hidutsa, Sioux, Plains Cree, Plains Ojibway, Sarasi, Omaha, Ponca, Ute, Shoshone, Kiowa, and Blackfoot tribes. Their rituals varied from tribe to tribe.

Elodie IENG et Alexandre GARCIE

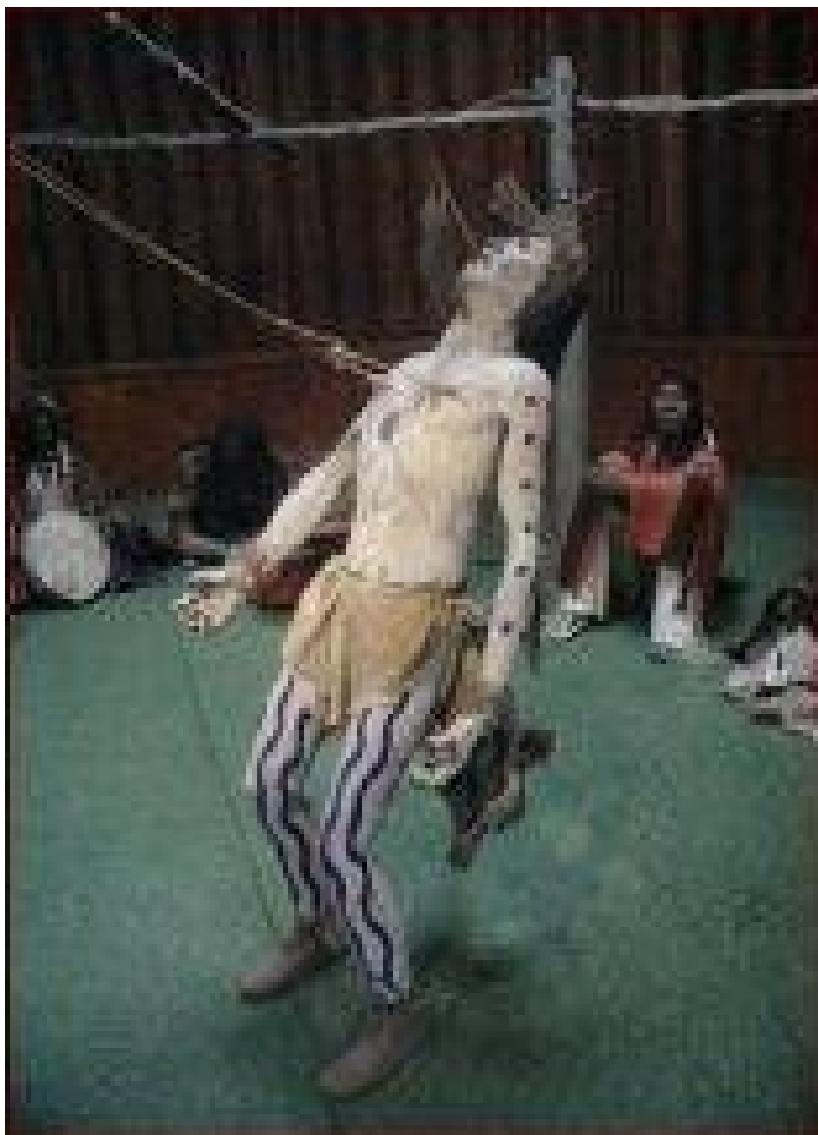




LA DANSE DU SOLEIL

La danse du Soleil était la cérémonie religieuse la plus spectaculaire chez les indiens des plaines. Elle avait lieu une fois par an pendant le solstice d'été. La célébration pouvait durer quatre à huit jours. Elle voulait démontrer qu'il existait une continuité entre la vie et la mort, que la mort n' était pas une fin en soit mais faisait partie d'un cycle. Les Arapaho, Arikara, Assiniboine, Cheyenne, Crow, Gros Ventre, Hidatsa, Sioux, Cree, Ojibway, Sarasi, Omaha, Ponca, Ute, Shoshone, Kiowa et Blackfoot pratiquaient cette danse.

Le rituel pouvait varier d'une tribu à l'autre. Pour celles qui subsistaient par la chasse au bison, c'était la cérémonie religieuse la plus importante. Ce rite célébrait la renaissance des participants et de leurs familles ainsi que le renouveau du monde terrestre. Le rituel comprenait sacrifices et souffrances afin de garantir l'harmonie entre les êtres vivants. Ce rituel est encore pratiqué de nos jours.





EIST SONNESYSTEM

D'Astronomen, d'Wëssenschaftler déi d'Stäre beobachte ginn dervunner aus dateist Universum och Weltall genannt virun ongeféier 15 Milliarde Joer duerch en Urknall entstanen ass. Esou sinn op ee Coup énnerhalb vu Minutten all d'Stären, d'Planéiten an all Himmelskierper entstanen. Eise Weltall ass onendlech grouss. Am Weltall gëtt et duerfir vill Galaxien a vill Sonnen. Eng Galaxie ass eng Usammlung vu Stären an eis Sonn, e Fixstår bild mathire Planéiten e Sonnesystem an der Galaxie, dat Mëllechstrooss genannt gëtt. Wann èm eng vun dëse Sonnen aner Himmelskierper kreesen, da bilde se all zesummen e Sonnesystem. Déi Himmelskierper, déi ronderëm d'Sonn kreesen, nennt ee Planéiten. Eist Sonnesystem huet insgesamt 8 Planéiten. Eis Äerd ass ee vun dëse Planéiten. De Planéit Merkur ass der Sonn am noosten, da kommen d'Planéite Venus, Äerd, Mars, Jupiter, Saturn, Uranus an de Neptun.

Fir eis e Bild ze man wéi wäit déi eenzel Planéite vun der Sonn eweg sinn, hu mir am Gang an och dobaussen d'Sonnesystem nogestallt. Als Material fir d'Planéiten duer ze stellen hate mir e roude Sëtzball fir d'Sonn, e Popcornkär fir de Merkur an de Mars, eng Noss fir d'Venus an d'Äerd, eng Pampelmuss fir de Jupiter, eng Orange fir de Saturn, eng Limon fir den Uranus an de Neptun. Als Moosseenheet hu mir fir dobaussen, well do méi Plaz ass, eis Schrëtt a fir dobannen eis Fousslängt benutzt. Mir hunn ee Schrëtt tëscht Sonn a Merkur gemat, ee Schrëtt tëscht Merkur a Venus, een halwe Schrëtt tëscht Venus an Äerd, een an en halwe Schrëtt tëscht Äerd a Mars, 9 Schrëtt tëscht Mars a Jupiter, 11 Schrëtt tëscht Jupiter a Saturn, 24 Schrëtt tëscht Saturn an Uranus a 27 Schrëtt tëscht Uranus a Neptun.



OUR SOLAR SYSTEM



The astronomers, so are called the scientists who observe the stars suppose that there was an immense explosion, the big bang before about 15 milliard years. Before this big bang the whole matter and energy were concentrated in one single point. All stars, all planets and all the celestial bodies originated within less minutes from this big bang. Our universe is infinitely big and there are a lot of suns and galaxies. A galaxy is an aggregation of milliards of stars. Our sun, a fixed star, forms with her planets a solar system in the galaxy which is called Milky Way. The celestial bodies which circle round the sun are called planets. Our solar system has a total of eight planets which circle round the sun. Our earth is one of these eight planets. The planet Mercury is the next to the sun, then there follow Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

To illustrate the dimensions of the single planets, we have shown the planets and the sun with fruits and a suitable ball. You like to make the same experiment, so this is the way we set the distances. You need 2 popcorns, 2 nuts, 2 lemons, 1 orange, 1 grapefruit and one red ball to sit. At first, choose the best location. You can make this experiment inside in the corridor of your school building or outside in the schoolyard. Inside we used as a unit our foot length and outside we made steps. Then imagine a long, straight line, the experiment takes place. Now set the red ball on the edge. It is the sun. Make a step away from the ball and set a popcorn as Mercury. Put a nut for Venus after a further step. A half-step further place the second nut for the Earth. One and a half step behind the Earth, place another popcorn as Mars. After nine further steps, put the grapefruit as Jupiter. Use eleven steps to set the orange for Saturn. After another 24 steps, put a lemon for Uranus. After a further 27 steps set the other lemon for Neptune.



SONNEKULT



Schonns fréi hunn d'Mënschen erkannt wat fir eng grouss Bedeutung d'Sonn fir d'Liewen op der Äerd huet. Jidderee konnt d'Sonn gesinn a spieren. Si huet Guddes bruecht, Liicht, Wäermt, Wuesstem awer och manner Guddes wéi Drehent an Hongersnout an domatter den Doud.

Europa: D'Sonnegottheeten am ale Griicheland waren Helios an Appolon. Heliostempel goufen op ville Plazen opgerit, zum Beispill a Korinth, Argos an op der Insel Rhodos, dem Zentrum vum Kult. A Roum ass d'Sonn a Gestalt vum Gott Sol veréiert ginn.

Amerika: A Nordamerika gouf d'Sonn vun den Indianer veréiert. De Sonnendanz ass dobäi déi eelsten Zeremonie vum Vollek vun de Sioux. Och a Mexiko a Peru wor de wichtigste Gott bai den Azteken den Huitzilopochtli. Hie symboliséiert d'Sonn. De Sonnegott gëtt all Dag nei gebuer vun der Erdgöttin Coatilcue, stierwt all Owes a verschwënd an der Äerd.

Asien: A Japan ass déi héichste Gottheet d'Sonnegöttin Amaterasu, déi gläichzäiteg och Schutzgöttin vum Keeserhaus ass. Bäi den Inder am Hinduismus gouf d'Sonn als Gottheet Surya veréiert, déi a Südindien als béis an an Zentralindien als gudd gegolt huet. Dat berühmt Bauwierk, vun der Unesco zum Weltkulturierwen ernannt an dem Sonnegott Surya geweit, ass de Sonnentempel Konorak bai Puri am Golf vu Bengalen.

Am alen Ägypten gouf d'Sonn och als Gottheet veréiert. D'Leit hunn zum Sonnegott Ra oder och Re genannt, gebiet. Ra ass dat ägyptesch Wuert fir Sonn. An den Duerstellunge huet dëse Gott e mënschleche Kierper an dreet eng Sonn op sengem Falkekapp. Am Kader vun eisem Projet hu sech d'Schüler vun de Klasse 7MO1 a 9MO2 konnten d'Ausstellung "Ägypten. Götter. Menschen. Pharaonen" an der Völklinger Hütte, Unesco Kulturerbe zu Saarbrécken an Däitschland ukucken. Duerch d'Ausstellung mat Exponaten aus dem Musée Egizio vun Turin hunn eis zwee Guide gefouert an hunn eis konnten déi 4000 Joer al alägyptesch Héichkultur wéi och d'Bedeitung vum Glaawen bai den Ägypter op eng ganz interessant Aart a Weis méi no bréngen.

SUN CULT



Early, people recognized the importance of the Sun for all life processes. Everyone could see and feel the Sun. The Sun brought light, warmth, growth but was not always consistently good. It could scorch everything and bring death.

Europe: The Sun deities in the ancient Greece were Helios and Apollo. Helios Temples were built in many places, in Corinth, Argos and on the island of Rhodes, the centre of the cult. In Rome, the Sun was worshipped as a form of the God Sol.

America: In North America the Sun was worshiped by the Indians. The Sun dance is the oldest ceremony of the Sioux people. The worship of the Sun was highly developed in Mexico and Peru. For the Aztecs, Huitzilopochtli was the most important God. He symbolizes the Sun and is represented as a young warrior.

Asia: In Japan, the supreme deity is the sun goddess Amaterasu, who is also the Patron Goddess of the Imperial House. In Hinduism, the Sun was worshipped as the deity Surya, which was seen in South India as evil and in Central India as well.

In old Egypt one recited to the sun god Ra or also Re, the Egyptian word for the sun. In the representations he often looks manlike and carries a solar disc. Pupils of classes' 7MO1 and 9MO2 visited the exhibition "Egypt. Gods. Humans. Pharaohs" at the Völklingen Ironworks in Saarbrücken, Unesco World Cultural Heritage Site in Germany. They have been carried into Ancient Egypt culture of four thousand years before Christ and into the realm of Gods. The exhibits are from the Museo Egizio in Turin, the best museum of Egyptology in the world.



The sun is the source of life on earth as it brings two things: heat and light.

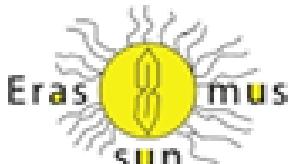


MIR ENTWERFEN E LOGO FIR EISE PROJET



Am Kader vum Projet hate mir an 2er Gruppen op de Klasse 7MO1 a 9MO2 e Logo ronderëm d' Thema "There is something new under the sun" entworf. E Logo soll präzis a kloer duerstellen ëm wat et geet. All Iwwerflësseges soll eweg bleiwen. De Logo soll ee vergréissere können a ka mat Symbol, Bild, mat oder ouni Numm versi ginn. D'Auswiel vun der Schréft soll awer dobäi originell sinn.

Fir dést ëmzesetzen hate mir d'Designerin Julie Conrad (www.julieconrad.lu) bai eis an d'Klassen invitíert. Nodeems mir eis unhand vu bekannte Marke vill verschidde Logo ugekuckt hunn, hu mir alles wat eis un eisem Projet wichteg ass un der Tafel festgehalen. Jiddereen huet fir sech dunn 3 Iddieën zeréck behalen an dëss skizzéiert. Duerno hu mir eis a Gruppen zu zwee zesumme gesat an eis géigesäiteg eis Iddien erkläert. Uschléissend huet jidderee seng beschten Iddi eraus gewielt an eise Gruppepartner huet eis d'Decisioun virun der Klass presentéiert. All Grupp huet sech fir ee Logo entscheed an dësen hu mir bai der nächster Etapp am Adobe Illustrator mat eiser Zeechnung am Hannergrond nogezeechnet a faarweg ausgemoolt. Ganz zum Schluss hu mir dunn 3 Logo erausgesicht déi eis Schoul zu Kuopio a Finnland vertrueden hunn. Hei hu mir déi exzellent 2. Plaz mat dem Logo SUN hanner dem Gewënnerland Frankräich gemat.

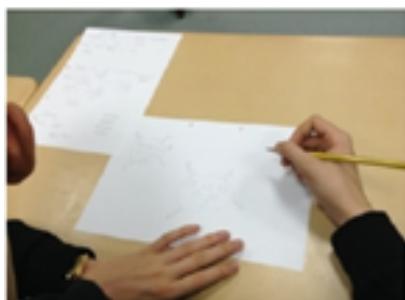


WE DESIGN A LOGO FOR OUR PROJECT



A logo should show exactly and clearly what it concerns.

Everything what is superfluously should stay away. One should be able to increase a logo and the logo can be provided with symbol, picture, with or without name. The choice of the writing should be original. Together with the designer Julie Conrad (www.julieconrad.lu) we have looked first at different known logos and have held on the important in our project in a mindmap. In pairs we have discussed our ideas, have outlined and introduced them to our colleagues. In the programme Adobe illustrator every group has gone over the well-chosen logo and has painted it colourfully. The students and teachers of both classes have selected 3 logos for Finland and in Kuopio we have made the 2nd place with the logo SUN behind France.



ENG SONNENAUER AN EISEM SCHOULGAART



D'Gaardesaison huet erëm ugefaangen a mir beplanzen dëst Joer eis Parzell no dem Prinzip vun enger Sonnenauer, esou dat mir d'Auerzäit dobaussen ofliese können. De schwedesche Naturwëssenschaftler Carl von Linné hat schonns 1747 eng Blummenauer, e Blummebeet a Form vun Zifferblat mat 12 Ënnerdeelungen ugeluecht a konnt feststellen dat bestëmmte Planzenzorten nämmen zu bestëmmten Auerzäite bléien.

Mirunn e Beet erausgesicht dat zu all Dageszäit vun der Sonn beliicht gëtt. Mir hu mat enger Schnouer e Krees an eist Beet gezunn a en hëlzene Stil an d'Mëtt gesat. Spéider soll hei eng Riisesonneblumm de Schied werfen fir d'Auerzäit können ofzeliesen. Fir d'Auerzäite festzeleeën hu mir mat eisem Kompass d'Positioun vu Norden a Süden ausgemooss. Eist Beet hu mir an 12 Andeelungen ënnnerdeelt, mat Steng ofgetrennt an hunn en Holzschëld mat der Auerzäit derbäi gesat. An déi verschidden Ënnerdeelungen setze mir Courgetten, Paprika, Muerten, Bounen, Zalot, Kabes, Réidercher a ronderëm planze mir e Krees mat klenge Sonneblummen, déi mir amgaang si virzezéien.



A SOLAR CLOCK IN OUR SCHOOL GARDEN



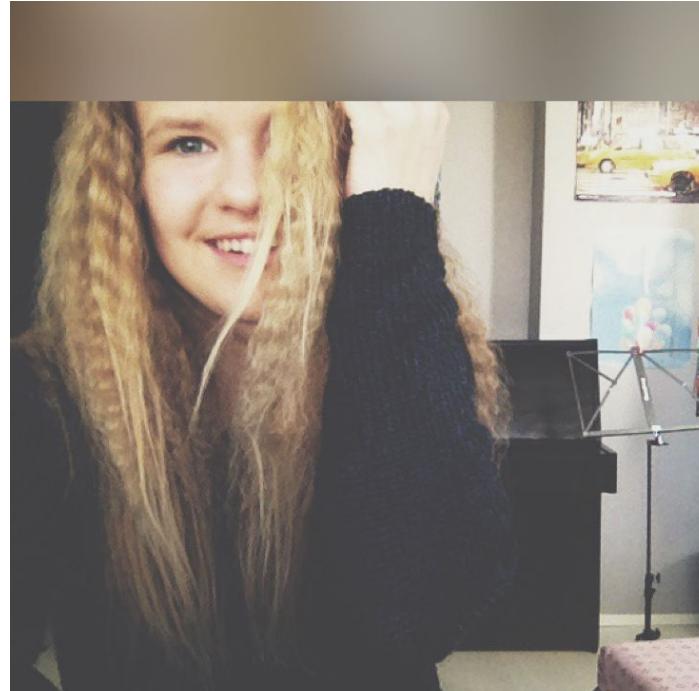
The garden season has resumed and we plant this year our plot after the principle of a solar clock, so that we can read the time outdoors. In 1747 the Swedish scientist Carl von Linné let already cultivate a patch with a flower clock. He made observations when flowers open and close during the day.

We have selected a patch which is lighted up by the sun at every time of the day. We drew in our patch a circle with a string and put in the middle a wooden handle. Here should grow later a gigantic sunflower throwing the shade for reading the time. To fix the times, we have measured out the north and the south. Our patch is divided into twelve segments, separated with stones of each other and provided with wooden signs with the times. We will plant there courgette, paprika, carrots, beans, salad, cabbage, radish and all around small sunflowers.

Thanks to the warmth and the light of the sun, the plants germinate, grow and give fruits and vegetables to all the inhabitants of our planet. Thus, the sun is the source of all life on earth.



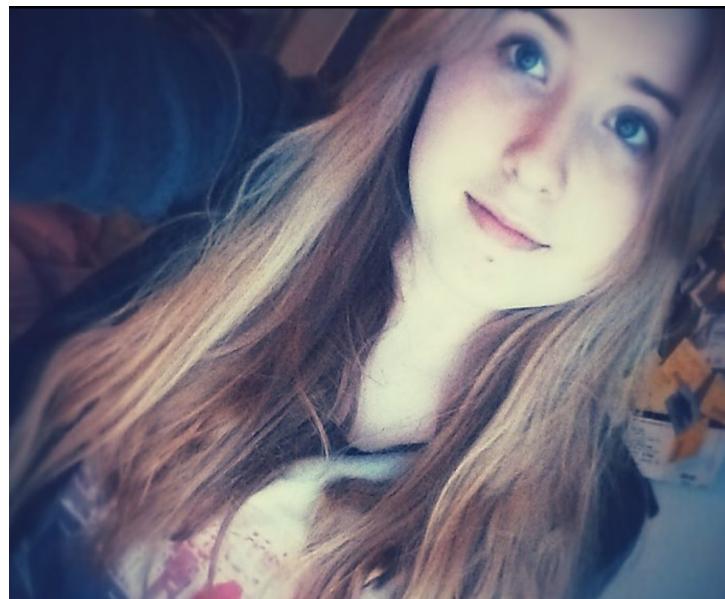
Our sun provides heat that allows the seed to germinate. Each plant has a minimum temperature at which it develops: that is the zero of vegetation. For example, the tomatoes need 12 °C to germinate.



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Erasmus+

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