

Let's share culture and history using modern techniques and methods of learning teaching



Guide with ideas about modern methods and techniques of learning and teaching





INTRODUCTION

This guide was created by the teachers from schools in: Rębków, San Marco in Lamis, Sobreda and Patras. They have been cooperating during the project cofounded by Erasmus+ Programme of the European Union.

The guide is designated for teachers of partner schools and other teachers who are not connected with the project. It is available on the school website and school library, municipality library.

The guide includes ideas, techniques, methods related to learning and teaching, that teachers shared during the project







ACTIVE METHODS

Aids and tips that will help studensts to broaden their knowledge, to extend their interests, develop new ideas, communicate with others and learn to discuss.

These methods characterrised by:

- a great power to stimulate the activity of students and teachers,
- · high efficiency,
- · great variety and attractiveness.





Foundations of knowledge about learning and remembering

Each memory process consists of three stages:

- registration or coding
- · storage or storage
- · play or remind

Remembering is much better when the information recorded is somehow similar to the one we have previously acquired. It is good to use the method of alternate learning of science and humanities. It is easier to remember information that is given at the beginning or end. During the learning, you should also take breaks, which are very important for maintaining concentration. One cycle of self-study should not last longer than 30 minutes, followed by a 2-3 minute break. The longer the learning process, the longer the break should be.

However, it is advisable that breaks are short but more frequent. Independent work is considered the best way to learn, because we remember things best done by ourselves. To remember information effectively, replays should be as short as possible. Notes should be made in a graphic form (preferably in the form of mind maps, then the replays are really short)



Active methods in learning and teaching:

Mind maps, timeline axes, discussion, debate, games, drama, brainstorming, decision tree, pictograms, memory tabs, memory hooks, chain association method, experiments and experiments, design method, method of substitute words, rhymonyms, mnemonics, acronyms, acrostitics, Birkenbihl method, portfolio, fish skeleton, group work, snow globe, poster method, metaplan and many more

Some modern learning and teaching methods and techniques will be described below.

1. OUTDOOR LEARNING

Experts say that outdoor learning is quite beneficial to students because it makes them healthier and happier, and they do better academically. The various benefits include:

- Students who get to experience an outdoor learning environment tend to be more attentive and, therefore, have a better recollection of the information that was shared.
- Consistent exposure to nature decreases stress and anxiety, helps elevate mood, and helps with emotion.
- Outdoor learning allows students to put their focus back on nature.
- Outdoor environments naturally inspire children to be more physically active.
- Exposure to bright sunlight found in nature is also healthy for vision. Bright sunlight is necessary for the eyes to develop properly, lowering the risk of nearsightedness.



- In outdoor settings, children are more motivated to work together in groups, which can improve their social skills. They learn to manage conflicts, communicate, and cooperate with their peers in a more effective manner.
- Outdoor learning provides children with hands-on experiences in nature. Most children learn better by using their senses. Outdoor environments provide the perfect place to do this. Instead of viewing different types of plants or wildlife on a computer or TV screen, they can see, smell, hear and touch them in nature. Students can even start a garden and grow fruits and vegetables, which may have them wanting to sample their harvest. These hands-on experiences cultivate a love of nature and get them interested in our natural resources.

Considering all these benefits, outdoor learning may be something all schools should try to incorporate...

A study trip

Our school participated in a 2day trip which took place in the environmental park Of Thermo, a mountainous village in Aitoakarnania-Greece.

The participants were students of the sixth grade with their teacher, the school principal and the teacher of PE.

The first day they visited Folklore museum. The students met the customs of the place, the tools and the utensils they used in their everyday life in the old days.

Next day they visited the archaeological museum where the children saw the objects used in ancient times and listened to the Ancient History of the area.

After that they walked on an environmental path where the children came in contact with the nature of the place, saw the operation of the watermills and they ended up at Lake Trichonida.

Working in groups the students observed and collected information about the fauna elements of a wetland, the birds and fish as well as the way the lake was created.





Activities after the trip:

- The students completed questionnaires.
- The made presentations in the PowerPoint.
- They organized an exchbition with the photos they took from their study trip.
- They drew pictures of the nature in lesson of Arts.











2. MIND MAPS

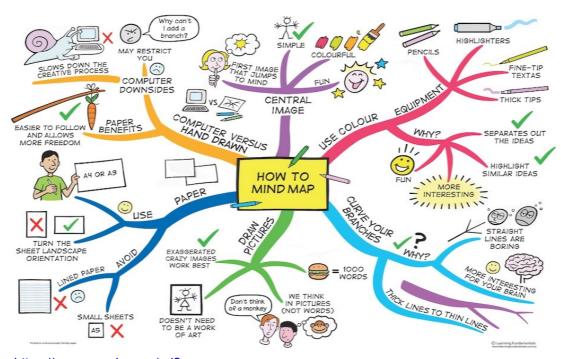
A mind map is a diagram used to visually organize information. A mind map is hierarchical and shows relationships among pieces of the whole. It is often created around a single concept, drawn as an image in the center of a blank page, to which associated representations of ideas such as images, words and parts of words are added. Major ideas are connected directly to the central concept, and other ideas branch out from those major ideas.

Mind maps can also be drawn by hand, either as "rough notes" during a lecture, meeting or planning session, for example, or as higher quality pictures when more time is available. Mind maps are considered to be a type of spider diagram.

The method was developed by two British scientists: Tony and Barry Buzan.







Source: https://www.google.com/url? sa=i&source=images&cd=&ved=2ahUKEwi49MiCmdjkAhVJY5oKHYepC50QjRx6BAgBEAQ&url=https%3A %2F%2Flearningfundamentals.com.au%2Fdont-understand-something-break-it-down-with-mindmaps %2F&psig=AOvVaw04bPmGBachtg95A5mmaWHZ&ust=1568821311571880

3. PICTOGRAMS

The pictogram is a drawing mark that is used to save the content. This method is to present a concept using a picture in isolation. We use it to learn nursery rhymes, poems and songs. Pictograms in the learning process increase the effectiveness of remembering. Student creating graphic meanings presents a given concept, event or situation using drawing.

Thanks to visual thinking, the movement of a student's hand fixes certain data in his memory. The very reminder of the movement triggers the student to imagine the drawing he has drawn before. In the process of reminding, this drawing is a kind of memory hook.







source: https://indywidualni.pl/edustrefa/mnemotechniki-moc-piktogramow

4.RHYMONIMS

Rhymes are short rhymes composed using words that we must remember. These types of nursery rhymes create strong associations in our memory and cause that even after many years of not using it, we still have it in our heads.

They are a very effective method in learning, for example, mathematical theorems and formulas - "formula for the area of the triangle P = 1/2 ah: Triangle fields do not count on the eye, multiply half the base by its height.





"Uje" is also not hatched when using verbs, e.g. I paint, build.

Whoever hatches "uje" gets two.



5.VIDEO MAKING

You can teach by using videos you find on the Net, on YouTube,... or by using videos you produce yourself or You can ask your students to create their own videos and to show what they know about a given subject / topic by using this tool.

Videos are an excellent tool for students to make the results of research projects available to the rest of the world. This, then, contributes to the changing of students from passive information consumers to active knowledge producers.

Videos are importante in Education because they:

- promote independent and active learning. Students work autonomously in order to illustrate a topic or a theme and to make it clear to their colleagues and to the teachers. They learn by doing;
- support distinctive learning perspectives. Students can use this tool at





diferente stages, from beginners to advanced, creating their own videos accordingly to their skills;

- develop various language approaches: visual, musical, verbal, non verbal, written, oral;
- help students see a purpose in their learning as they might in their future lives be using such a tool and apply these skills outside school;
- contribute to develop students' creativity and collaborative skills as they have to work and make choices together;
- help students to get engaged in a task and consequently in their lessons.

Here you can find some examples of videos created by Portuguese students to our project, concerning topics as different as: Art, History and cultural issues.

https://www.youtube.com/watch?v=EifLVVqj KE

- Portuguese Art in the XV and XVI centuries, Manuelino and the Renaissance trends

> https://www.youtube.com/watch?v=Ce-gwmiFs-w - D. Joao IV. The musician King https://www.youtube.com/watch?v=xjLDoF34S4M

> > - Xmas

6. NaCoBeZu

"NaCoBeZU"- means ",what I will pay attention to"; (what I will expect from the end of the lesson) is the exact criteria of success presented in the student's language, presented to the students by the teacher at the beginning of the lesson. The criteria are formulated in a clear and understandable way; allow reaching the previously chosen goal of the lesson.

Thanks to NaCoBeZu, every student knows what steps he must take to achieve success. NaCoBeZ is undoubtedly beneficial for the student and also for the teacher.

7. MEMORY HOOKS

Memory hooks are mnemonics created to remember information in which the order is essential. It requires a little more effort than the cell





method, but it makes it very difficult to confuse the order of the memorized facts or to miss one of them. The first step to using this method is to match the images to the next numbers and numbers.

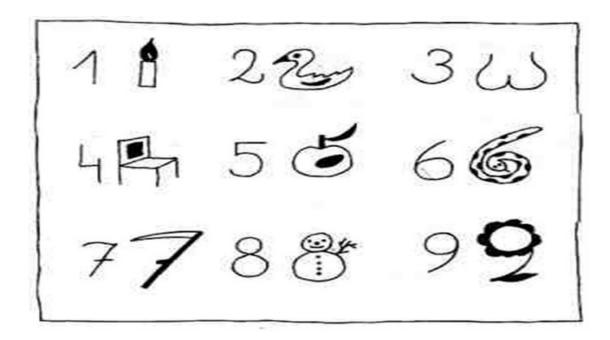
This can be done using rhymes or visual representations. The list from one to 10 could look like this:

- 1 stick:
- 2 swan;
- 3 breasts;
- 4 chair:
- 5- hook:
- 6 cherry;
- 7 scythe;
- 8 snowman;
- 9 balloon:
- 10 sword and shield.

Let's say we need to remember the planets of our system in order from the nearest to the furthest from the Sun.

- 1 we hit with all our strength with a huge baseball bat on a small ball with the inscription Mercury, which nevertheless falls very close;
- 2 beautiful Venus is flying on a swan through space;
- 3 Mother Earth hugs us to her breast;
- 4 our grandfather sits in an old chair with a martian face:
- 5 the great Jupiter hangs in space on a tiny hook;
- 6 from the very center of Saturn a pedicel with a leaf grows and the planet turns into a large cherry;
- 7 death cut Uranus with a scythe and his ashes are kept in the urn;
- 8 instead of snow, the snowman is made of two balls of sea water, it is the snowman of the sea god Neptune;





8. Flipped Classroom

In education, with an inverted class or upside-down teaching, we refer to a methodological approach that overturns the traditional learning cycle of frontal lectures, individual study at home and classroom checks, with a rather rigid and hierarchical teacher-student relationship. The Italian term is the translation of what is internationally known as Flipped Classroom. The upside-down teaching stems from the need to make school time more productive and functional to the needs of society in information that has been dramatically changed in a few years. The rapid mutation induced by the spread of the web has produced an increasingly marked detachment of much of the scholastic world from the needs of society, from the demands of the business world and from the skills and desires of students and their families. It has also been observed that the interests of students are now born and developed increasingly outside the school walls.

The internet revolution has reproduced, in a certain sense, what happened with the advent of printing: it has allowed the massive dissemination not only of written knowledge but also of multimedia contents, making it possible to take the lessons / explanations of the teachers from home. Knowledge is no longer confined within the walls of educational institutions and therefore the problem of the



unproductiveness of transmitting what is already available at home arises. The upside-down teaching responds to this state of affairs with the reversal of the two moments classics, lesson and individual study: - the lesson is moved home, taking full advantage of the potential of online teaching materials;- the individual study is moved to the school where the collaborative setting allows the application, without the fear of time constraints, of an active and socializing and personalized learning teaching. The teacher can act as tutor alongside the student.

The method of the Flipped Classroom (literally "overturned teaching") transfers the responsibility and ownership of learning from the teacher to the students. When students have control over how they learn content, the pace of their learning, and how their learning is evaluated, learning belongs to them. Teachers become guides to understand rather than dispensers of facts, and students become active learners rather than containers of information. Frontal lectures are still a valuable tool for teachers in some cases. Through the Flipped Classroom you want to move this tool to a different moment than the traditional classroom lesson. Rather than relying on the ex cathedra lesson, simply use the "Inverted Lesson" method to help achieve a learning goal. When it is deemed appropriate, for example, suppose a lesson where students at some point they will have to use the calculator for linear regression on their data. Ideally they collected the data in a "real-world" environment with inquiry-based collaborative learning methods. Most likely, students will need direct instructions on how to do a linear regression. You could spend valuable time in class so that everyone with their calculator can do the calculations and you will have to follow a single step-by-step student, with some bored students and some students left behind. It is necessary to stop the whole class and help students who have missed a passage. Then one day, week or month later, you will need to go through the procedure again to remind the pupils. Or you could create a simple five-minute video that shows the procedure for entering data and performing a linear regression.

This is a permanent archived tutorial. Advanced students will never need to watch the video again. All other students can re-watch the video, if necessary. Now, there is more time in the classroom for data collection, collaboration and application. In the Class Without Frontal Lessons, there is an active and intentional transfer of some information





outside the classroom with the aim of freeing the time to make better use of interaction at school. Finally the classroom time is extended in favor of good practices such as cooperative learning, Inquiry and PBL. Spaces open for the personalization of teaching. Information transfer generally requires the use of technologies such as podcasting or screencasting *. Students have immediate and easy access to any topic when they need it, giving the teacher more opportunities to enrich students' abilities.

http://prezi.com/x1cwlt_lx3bn/flipped-classroom-commentata/

http://people.unica.it/gbonaiuti/flipping-the-classroom/

Also in Italy in 2014 FLIPNET was born, the association of teachers who practice upside-down teaching, referring to the site http://flipnet.it/ [4]

9.ACRONYMS

Acronyms, or acronyms, are words created by shortening a phrase consisting of two or more words. There are also acronyms derived from one word. They can be used in both written and spoken languages.

Acronyms are one of many mnemonics used in education. This method allows students to remember many difficult words such as plant, animal names, country names and their capitals. To make remembering easier, create a list of words and then write their first letters in a row so that they form one word.

Acronyms	Meaning in English language	Meaning in Polish language
AFAIK	As far as I know	O ile wiem
ASAP	As soon as possible	Najszybciej jak to możliwe
BRB	Be right back	Zaraz wracam
BTW	By the way	Swoją drogą
FAQ	Frequently Asked Questions	Często zadawane pytania



10. Chain Association Method (CAM)

This one of the learning methods is based on the basic principles of remembering, i.e. images and associations. During its use, subsequent units of information are combined into one string, the associative chain. The first and last element of this sequence of words, events or things should be the so-called "Reminder", i.e. such an element that will match a given association string to the context. In this way we will know what our string refers to.

In order for the Chain Association Method to be effective, it should be used as follows:

- 1. Select the list of items to remember (e.g. shopping list).
- 2. The first thing must be associated with the whole string. In the case of a shopping list it can be e.g. a supermarket or a bazaar.
- 3. Next, you need to compose subsequent stories, from the base to the final element, which should also be associated with the first element (thanks to which we will remember the string from the back). In this way we connect every word, every thing or event with the next link in our association chain.
- 4. Repeat, replay our string several times from memory.

Let's remember that our associations were: exaggerated (gigantic or miniaturized), absurd (unusual), dynamic (violent events) and simply our own, original. It is also worth using symbols as a substitute for key words, e.g. heart = love, image = art, light bulb = idea.

CAM can be used to remember shopping lists, speeches, oral exams, papers, poems, lecture content, book or film, notes, daily schedules, class schedules, etc. Thanks to this mnemotechnics you do not have to read the card, combining subsequent characteristic keywords, points, the audience is amazed, speaking straight from the head. In addition, in this way you train the power of your imagination, thereby improving your memory. ŁMS should be exercised every day,





increasing the number of elements and at the same time limiting the time to remember them. Mastering this technique guarantees free use of more advanced and useful learning methods.

Example:

We have a list of words to remember:

- 1 parrot
- 2. car
- 3 carriage
- 4 croissant
- 5. Slipper
- 6. egg
- 7. carousel
- 8. washing machine
- 9. beans
- 10. ice cream

We compose the story from the words given above.

We remember to create images and enable our senses and emotions. The first word to remember well that it is from him that the chain begins, we can connect with your person, e.g. I dressed colorfully like a parrot. Now we associate a parrot with the word car. A small parrot drove a huge, old, noisy car. The car turned over and turned into a beautiful, shiny carriage. Tasty, fragrant croissants were baked in this carriage. In the shape of a croissant we had a slipper, we were uncomfortable in it, we were constantly falling over. Someone put an egg in the slipper (here we include our feelings, anticipating the effect of such an event). The egg was very dissatisfied and protested loudly. We twisted the egg so that it turned like a carousel, this time squealing with satisfaction. On the carousel you could swing only on the orange, 12 shaking washing machine. Beans grew from the washing machine (it smelled and had a yellow phosphorescent color) and wrapped it all. Ice cream has flourished on the beans (e.g. chocolate and strawberry we can taste them). Such an absurd story certainly helped us remember the sequence of words. By remembering in this way, we incorporate both the right and left hemispheres of the brain into the learning process, e.g. - the right hemisphere is an image and the left order. In





this way, we strengthen our memory and make the most of our minds. Any information reaching both hemispheres is easier to understand and thus to remember. The use of the Chain Association Method requires us some flexibility and a change in approach to the learning process. We cannot be afraid of the absurdity, strangeness or ridiculousness of our associations. Such images interest us, and thus increase the concentration of attention. Our mind is reluctant to remember boring, everyday and "gray" information.



11. TIK

The student world is a world Online. Today's student does not part with your mobile device and has continuous access to information. Therefore, fight it the phenomenon does not make sense. We are dealing with a generation of digital natives. Modern technologies at work a teacher is a must. Show students that devices mobile and applications can be used also in class in a creative way. Group work is one of most popular activating methods. The Flip Generator allows you





to create groups and will generate a wheel of fortune, thanks to which for example, we will draw a student to answer.

We can also use QR codes, which will make the lesson more attractive and also involve the student. For repetition in class use the applications: Bamboozle, Quizizz, Kahoot or Learning Apps. Pupils they are very involved and acquire knowledge faster. Modern teaching based on student activity and ICT brings the desired results educational.

12. ICT - SCRATCH

<u>Using ICT</u> the students of the 6th grade, created a tourist guide of the city of Patras. This work was created by using the programming language "Scratch 1.4". Any user via internet can get brief information about landmarks of the city of Patras by clicking on the appropriate icon on the screen.

Here is a link to platform; https://scratch.mit.edu/projects/300719012/



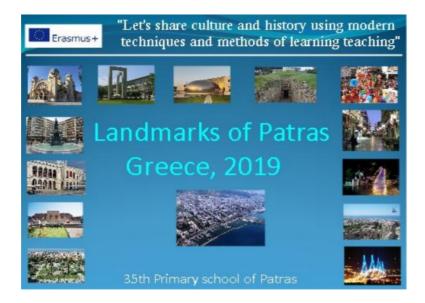












13.Publisher

Publisher is an application that focus on the layout and design of written productions.

It is a very interesting tool to be used with students because it helps them to:

- summarise the content of what they want to say
- take decisions on how to presente the information
- make choices related with the layout of the final product

It is a very good tool to help:

- promoting collaborative work among students
- searching for information on the web or elsewhere
- summing up information
- distinguishing the essential from the accessory

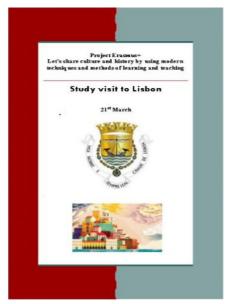
Here we have 2 productions done by the PT students from year 8, at the time of the mobility, occurring at Escola Basica Elias Garcia, the





PT partner school from this Erasmus+ project. Both leaflets were madeby students organized in groups. Each student assumed a diferente role in the group, working together for the final product.









Lisbon







stelo de São Jorge

Seint George Cattle is a Moorish castle. The strongly walls and towers are from the mediawal period of Periogases history, in the 10th century, I was bury important when the Christian forces defended kingdom in the 10th century is the properties of the straight of the properties of the properties of Across III, the governor, in the 16th century, King John I married the Buglish princes Philippo of Lucrater and dedicated the cattle to Sant George, a warrior-state.

Thom the centure we cause the historic countre of Lisbon and the Tagas river and it is one of the main tourist sites of Lisbon.



This is one of the most romantic places in Lisbon. It's a terrace next to a small church of the same rame, offering a beautiful panorumic

year. We can see the done of the National Partheon, Sento Estevio Luxch and Sto Migual Clarch. It the care there is the but of an state in the care there is a bongiantiles, garden, where is the but of an state in moran man fulle de Carilho and two the panels, one likeraings? Georgie Coule beingstaken overfrom the Moran in the 2º contray, and the other dooring "Broga do Comércio" before its setucion in the earthquake of 1753.

The mail tilles with generate chapter over the walk of the turnor.

lareia de Santo António

Built in the place where Sant. Asthony was born in 1195, his dum'h is delicuted to the sint. Anown as the wedding acts undergrated of lest dylect. Sant. Asthony is also known in the world as Sant. Antheny of Pack. Married proplic came here to wisit the dearch and thank the sant their blacking.



The Liebon Cathedral "Sé" de Liebon is a Roman Cathelic drum It was the first religious building in the 12th century by the first of Portugal, Afonso Henriques. The architect of the Liebon Cathedral was Mastre Roberto. "Sé" has been no diffied ser cral times and survived many.



Remains do Pago, also known as The Thide Square (Phaga do comescol.) is one of the largest squares in Bumpe. In footent of Libon downstoon, inform of the Pages River, near the "Take that Cohrane". This phace were the Royal Paless of Pertural for tree centralist was destroyed during the enthquake of 1755.

In the centre of the Square, we only see the, 14m high, bronne equestrian status of the King José I.

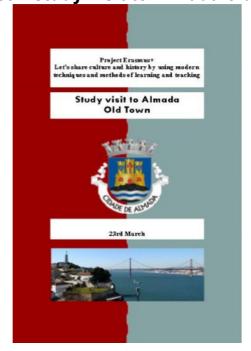
This beautiful oquare was built in 1775 by Josquain, Michado de Castro, the main Portuguese sculptor of the 18th centry.



Ribeira das blum is a place in Control Lieben which currently has touristic functions and in the past it was a place where many of the Portuguese explorers' sings were built.



Leaflet - study visit to Almada old town







Almada

We'll visit the old quarters of Almada.



Almada is a council city where our school belongs. It is next to Tagus (the biggest river of the Iberian Peninsula) and of the Atlantic Ocean



Paços do Concelho

The City Hall (Pagos do Concelho) belonged to the suburbs of the medieval nucleus. It was constructed in the XVIII century and it is related with the local administrative council power



Museu Medieval de Almada (Medieval Museum of Almada)

It is a museum created on the excavation site of houses from the medieval time. It congregates some archaeological artifacts gathered during excavation.

Almada

Jardim do Castelo de Almada (Garden of the Castle of Almada)

The Castle of Almada retraces to the medieval time, having been destroyed by the Arabs in a battle with the Portuguese forces. Portuguese as winners in the battle restored the castle to its original state. The Castle gardens were created in the surroundings of the castle. The sightseeing points in the gardens offer privileged views on the river Tagus and the medieval quarters of Lisbon.



Elevador Panorâmico da Boca do Vento Almada (Panoramic elevator of the Mouth of the Wind -Almada)

The Elevator of the Mouth of the Wind connects the uptown or Old Almada to downtown and it leads the way to the edges of the Tagus river. From the panoramic interior of the elevator we can observe Lisbon and the estuary of the Tagus river.



Casa da Cerca (Cerca House)

Casa da Cerca was acquired by the City Council of Almada in 1988 and it was transformed into a Centre of Art Contemporary in 1993, as a space of inquiry and spreading of art contemporary. The first exposition happened in the The first exposition happened in the workmanship of the Portuguese painter, Amadeo de Souza-Cardoso. In 2001, the Soil of the Arts-Botanical Garden was inaugurated, and intends to articulate the scientific and artistic source from a project inspired by the Portuguese traditional garden that, beyond the greenhouse and an outdoors amphitheater, has also areas, where a great diversity of plants grows inspiring the plastic arts.



Terreiro do Paço, also knoven as The Trade Square (Praça do

14.Padlet

What is a Padlet?

Padlet is a software, available at - https://padlet.com/dashboard, people use to make and share content with others. Somewhere between a doc and a website builder, Padlet empowers everyone to make the content they want, whether it's a quick bulletin board, a blog, or a portfolio.

A padlet is like a little notepad to post thoughts, images, and files. Padlet can be used with students from early ages as it is:

- Easy and intuitive you won't find a simpler way to publish original content on the internet.
- Collaborative Invite others to work with you on shared projects, assignments, and activities.
- Flexible Add any file type you wish, organize however you want, and make it as public or as private as your heart desires.
- Beautiful Hit the design sweet spot with just enough options that you





can add your personal touch, but won't be overwhelmed by customization menus.

 Private and secure - Make your padlets viewable only to a select group of people.

You can find examples of padlets at

https://padlet.com/about/gallery

Examples of padlets include, among others:

- timelines
- photo contests
- biographies

In their own padlets, students can post files of different types, such as

- video (ex. recorded, YouTube, Vimeo)
- audio (ex. recorded, Spotify, Soundcloud)
- documents (ex. Microsoft Word, Google Docs)
- spreadsheets (ex. Excel, Google sheets)
- .PDF files
- Images (photos, illustrations, gifs, photoshop)
- Presentations (ex. PowerPoint, Keynote)

Students can share their work with others and they can have a lot of contributors to their own padlet. In this way students can share their works with the rest of the world, becoming content producers instead of just content users.

We hope that all the techniques presented will help you prepare for the lesson using active teaching methods. Make your classes interesting so that students remember as much as possible with the least amount of effort. Let both the teacher and the student leave the lesson happy and satisfied.

This guide was created by the teachers from schools in: Rebków, San Marco in Lamis, Sobreda and Patras. They have been cooperated during the project cofounded by Erasmus+ Programme of yhe European Union.