TOOLS TO SUPPORT TEACHERS DURING DISTANCE LEARNING

Impresum:

Authors

Primary School “Kiril Hristov”
Ekaterina Slavova Yovcheva,
Veska Stoyanova Cherkelova,
Veneta Slavova Kirkovska,
Georgi Pavlov Dimitrov

Primary School “Malina Popivanova”
Sanja Mihailova,
Ile Velkov

Primary School “Dubovac”
Maja Lukić Puškarić,
Andrea Grkovski-Zimet,
Krešimir Vojanić,
Kristina Fratrović ,
Snježana Marković-Zoraja

Civil Society Organization Eco Logic
Andrijana Zafirovska,
Nikola Neshkoski,
Veljan Parizov

The distance lesson as an innovative educational environment

The most important quality of the educational environment of the modern school is its innovation as a factor for the continuous renewal of the pedagogical system. In addition, the needs of the globalization of innovation pose a serious task for education to move to a qualitatively new stage: from pedagogical innovations aimed at developing reproductive (non-innovative) thinking of students to pedagogical innovations aimed at developing innovative (creative) thinking of students . Such a qualitative transition will allow us to talk about the formation of a new generation of innovative pedagogical systems, whose invariant characteristics are: development of creative abilities; humanistic nature of education; meeting the needs of modern society to ensure that students successfully adapt to society.

There are many reasons why one cannot study in educational institutions. This can be poor health and a considerable distance from educational centers. Unfortunately, due to certain circumstances, even children sometimes do not attend all classes. To avoid negative developments, to prevent the emergence of "obligations" in learning, lagging behind, many parents can use the method as distance learning in school. At the same time, it is possible to seriously improve the state of affairs in education and a child who regularly goes to school, but does not demonstrate full academic performance. By using distance learning at school, you can achieve good results.

The student will be able to learn each lesson as quickly as possible. And if suddenly something turns out to be incomprehensible, you will only need to restart the video tutorial and the child will avoid a knowledge gap. By listening to and watching the teacher's lectures, the student can easily learn the lesson. In an incomprehensible place you can stop and listen again. To conduct this remote online lesson, all you need to do is turn on a computer with Internet access.

It can be noted that distance learning has recently been widely used in higher education for secondary education or part-time education, and has not been widely used in the educational process of secondary education.

Distance learning is a very exciting process, filled with many new and unknown fields! The classroom system has existed for several centuries, but new aspects are also found in it. The field of research in the field of distance education is huge and they must start with practice.

There are currently three types of distance lessons

The first type of distance learning is that both the teacher and the students are distant from each other, but at the same time use a lesson previously published on the Internet.

The second type of distance learning is that the teacher and the students are in the same class, and the information resources they use during the lesson are removed from them.

The third type of distance learning is the placement of educational information on the educational website.

Model of the structure of the distance lesson

• Motivational block.

• Information block.

• Control unit.

• Communication and consulting unit.

• Instruction block.

Motivational block

Motivation is a necessary component of the distance lesson. The task of the online teacher is not to pass a certain amount of knowledge to the student, but to organize his independent cognitive activity, to teach him to acquire knowledge and apply it in practice, so in each material of the distance lesson there must be clearly defined a goal for students that they must achieve.

Students are not passive "consumers" of knowledge, but act as active participants in the educational process, gaining experience in interpersonal interaction. The main role is played by the personal qualities of the students, their abilities, the desire to acquire knowledge. As a result, the inclusion of such a child in a virtual community contributes to the formation of an adequate attitude to reality, the need for cooperation, overcoming isolation, development of communication potential and the formation of "life competence".

The use of information technology makes it possible to achieve the freedom of creativity of the participants in the pedagogical process: student and teacher. The teacher teaches, educates, but also stimulates the student to develop their inclinations, develops the need for independent work.

Information block (information content system).

When preparing a resource, great attention should be paid to the design, which serves for the best absorption of the material. Visual and psychological aspects of perceiving a distance lesson For the convenience of the student's perception of the text of the website, some characteristics need to be taken into account when creating a lesson: The main channel of information is visual. Therefore, the material should look attractive, be legible and not irritate the eyes. At the same time, both playful and fun moments are needed to diversify the nature of the student's activity.

Control unit (testing and control system).

When planning a distance lesson, it should be borne in mind that the student's awareness of learning new material, its consolidation, etc. it must happen individually, depending on his preparation and "training". If this is ignored, then there will be a natural averaging of students' knowledge and development, for strong students participation in the lesson may be useless. In this regard, when

planning a lesson, it is important to consider different options for monitoring the knowledge acquired by students, including: written survey, problem solving, control and independent work on a multi-level approach similar to the principles of computer games. Thus, the transition to the next material must be possible with the correct answer to the questions from the previous level.

Communication and consulting unit

There are opinions that the functions of the teacher end with the creation of an educational resource - it is enough for the student to find a well-written educational resource on the Internet and he will learn everything himself. Can the distance teacher influence the creation of an educational product by a student not through the content of the educational resource, but through direct communications?

On the one hand, it is necessary to describe in great detail the course of the lesson in the resource, to take into account all the questions that may have distant students, and to give answers to them. Otherwise, the distant student will have organizational difficulties.

On the other hand, a resource for the accumulation of knowledge by a distant student is not enough, he needs direct communication with the teacher.

It is important to consider what communications will be used in the learning process. They can be different in each lesson, although there are not that many in the arsenal. However, if they are used differently, then the effect of the quality of the lesson is achieved.

For example, a chat can be used to solve urgent operational problems, a forum can be used to discuss issues of interest to everyone, and individual consultations can be used via email or Skype and ooVoo programs.

Instruction block (instructions and guidelines)

One method for organizing (constructing) a distance lesson with applicable Internet resources is lesson. The tasks of the lessons and homework are performed by the students independently (the students use the list of links compiled by the teacher and independently search for the necessary information on the Internet). The teacher specifies the complexity of the task, deadlines, stages and features of the task and the criteria for its evaluation.

-The tasks completed during the lesson and the homework are presented to the class by the students (a “psychological trick” is used here - the students perceive and assimilate the material better if they prepare this material for the classmates and explain it to the classmates).

-At the end of the lesson the mastering of the study material is monitored.

-Homework here is creative (the main thing is the productive activity of students).

Video tutorial using Skype

One form of distance learning is a video tutorial using Skupe or ooVoo. Internet and communication programs such as ICQ (ICQ), Skype, ooVoo, Yahoo massager (Yahoo messenger), Google Talk (Google Talk) and others allow you to communicate in real time with people who are away from you. Skype and ooVoo are Internet telephony systems that allow people to communicate freely around the world, often using webcams.

Thanks to them we can::

first, have live communication with students who do not attend classes for a long time due to illness or other reasons. With the help of Skype or ooVoo programs, they can connect to the lesson in real time, thus keeping up with the program and not being separated from the team or in free mode to receive advice at any time convenient for the teacher;

second, to conduct video conferences or video games with students from other schools, which allows video communication in interactive mode.

Most interesting are the free features of the programs offered, such as communication between Skype and ooVoo subscribers, who are at home via text, voice and video, transferring files of any size at the highest possible speed. and organizing telephone conferences with many interlocutors. Currently, Skype conferences are paid, so it is more convenient to use the program ooVoo, where up to six participants can participate simultaneously for free.

Working with programs and installing them is extremely simple. You can download them for free at http://skype.com and http://www.oovoo.com, where you can also find instructions and tips on how to use them.

Undoubtedly, conducting a lesson with the help of an Internet resource requires some time from the teacher, but the results will not be late.

Conclusion

Distance learning is a very exciting process, filled with many new and unknown! The field of research in the field of distance education is huge and they must start with practice.

“The organization of distance learning for students is not aimed at mass education, at replacing traditional education. Its scope: additional education; external student; primary education only for the category of students who do not have the opportunity (for one reason or another) to attend day school.

It enables students to master the study material independently, to keep up with the program and not to be separated from the team.

Makes lessons interesting, rich in quality, effective. Increases motivation to learn. The use of distance learning opens up a promising direction in learning.

Features of distance learning as a tool for optimizing and individualizing learning

Distance education can be defined as education characterized by five main points:

• the presence of a teacher and a student and at least an agreement between them;

• spatial division of teacher and student;

• spatial division of the student and the educational institution;

• two-way interaction between student and teacher;

• selection of materials designed specifically for distance learning.

Thus, we can say that distance learning is a process of knowledge transfer (the teacher and the school are responsible for it), and distance learning is a process of acquiring knowledge (the student is responsible for it). According to the method of obtaining educational information, they distinguish between: synchronous educational systems (real-time, real-time systems) and asynchronous systems (off-line systems).

Synchronous systems involve the simultaneous participation in the learning process of students and teachers. Asynchronous systems do not require the simultaneous participation of students and teachers. The student chooses the time and schedule of classes. Mixed systems that use elements of both synchronous and asynchronous systems.

Scientists have identified the following advantages and disadvantages of distance learning:

Advantages of distance learning:

1. the student chooses the time and place of study;

2. access to educational materials via the Internet from anywhere in the country;

3. learning will not interfere with work;

4. flexible training conditions;

5. helps to reduce the costs of travel to and from the place of study;

6. optimization of the study material.

Disadvantages of distance learning:

• there is no person nearby who could emotionally color the knowledge, this is a significant disadvantage for the learning process;

• the need for a personal computer and Internet access;

• One of the problems of training is the problem of establishing the identity of the user when testing knowledge. It is impossible to predict who did the work;

• distance learning requires self-discipline;

• high labor intensity in developing distance learning courses.

Methodological features of distance learning

Distance learning should be considered as a special type of education, which is characterized by certain goals, functions, principles, ways of interaction between the subjects of the educational process.

Distance learning is designed to ensure maximum interactivity of the educational process, which implies interactivity between student and teacher, as well as feedback between student and learning material and the possibility of group learning. The presence of feedback allows the student to receive information about the correctness of their progress in the process of acquiring knowledge, as well as to exercise self-control, self-assessment in this process.

The main goals of distance learning today are:

1. professional training and retraining of the staff;

2. raising the qualification of the personnel in different specialties;

3. preparation of students in separate subjects for exams;

4. preparation of students for admission to educational institutions of a certain profile;

5. in-depth study of topics, sections of the studied disciplines;

6. elimination of gaps in the knowledge, abilities, skills of the students in certain disciplines;

7. the main course of the curriculum for students who due to various reasons cannot attend face-to-face trainings;

8. additional education by interests.

The planned results and content of distance learning coincide with the results and content of full-time education, the difference is in some principles of teaching, as well as forms of presentation of teaching materials and forms of interaction between teacher and students.

Of course, distance learning must be built in accordance with all didactic principles that operate in modern pedagogy: objectivity, scientific nature; connections between theory and practice; consistency, systematicity; accessibility with the necessary degree of difficulty; visibility and variety of methods; consciousness and activity of the trainees; the power of acquiring knowledge, skills and abilities. But there are also specific principles of distance learning.

The following specific principles of distance learning can be distinguished:

• The principle of interactivity. Distance learning should provide interactive interaction between all participants.

• The principle of openness. Everyone should have access to distance learning of their choice.

• The principle of flexibility. The course of the learning process can be adapted to the individual characteristics of the student, building an individual educational trajectory and giving the opportunity to learn at a convenient time.

• The principle of adaptability. It is provided through the use of modern information and telecommunication technologies, which allow adapting the process of distance learning to the characteristics of students.

• Principle of portability. It consists in the ability to transfer textbooks, audio and video recordings, television and computer programs for educational purposes around the world.

• Consumer orientation. Distance learning expands access to education for people who, for various reasons, cannot receive full-time education.

• The principle of basic knowledge. To start distance learning, the user must have some initial knowledge. To do this, different distance learning courses use input control.

• The principle of identification. The identification of students is part of the overall security measures. Each user of the distance course has his own username and password to access the training in the course. The identification of the student's identity is also done through videoconferencing.

• The principle of individualization. You can study a distance learning course according to the individual pace and individual educational trajectory.

• The principle of regulating training. Distance learning must be subject to certain time regulations, for example, a deadline is set for passing tests, control tasks, etc.

• The principle of pedagogical expediency of using the means of new information technologies. The means of information and communication technologies used in the distance learning process must meet the learning objectives and contribute to their most effective achievement.

Forms of distance learning

Distance learning, carried out with the help of computer telecommunications, has the following forms of classes.

Chat classes - training sessions conducted using chat technology. These classes are held synchronously, ie all participants have simultaneous access to the chat. Within many distance learning institutions there is a chat school, where the activities of distance teachers and students are organized with the help of chat rooms.

Web classes - distance lessons, conferences, seminars, business games, laboratory exercises,

seminars and other forms of training conducted with the help of telecommunications and other Internet features. For these classes, specialized educational web forums are used - a form of user work on a specific topic or problem with the help of records left on one of the sites with the appropriate program installed on it.

Web forums differ from the first form of classes in the possibility of longer (multi-day) work and the asynchronous nature of the interaction between students and teachers.

Teleconferencing - usually conducted on the basis of mailing lists using e-mail. Educational teleconferences are characterized by the achievement of educational goals. There are also forms of distance learning in which learning materials are sent by mail to the regions.

This system is based on a method of teaching called natural learning. Distance learning is a democratic, simple and free learning system. It was invented in the UK and is now being used extensively by Europeans to further their education. The student, constantly performing practical tasks, acquires stable automated skills. Theoretical knowledge is acquired without additional efforts, organically woven into training exercises. The formation of theoretical and practical skills is achieved in the process of systematic study of materials and listening and repetitive exercises on audio and video media (if any) after the speaker.

Distance learning methods

Depending on the way of communication between teachers and students, the methods of distance learning are distinguished:

• The method of teaching through the interaction of the learner, consulted or rehearsed with educational resources with minimal participation of teachers, lecturers, consultants, scientific and technical leaders (self-learning). To apply this method, teachers, educators create and select different educational resources: printed, audio and video materials, as well as teaching aids provided through telecommunications networks (interactive databases, electronic publications and computer training systems).

• Method of individualized teaching and learning, characterized by the relationship of a student, student or student being consulted, a client in need of scientific and technical services, a candidate for a scientific degree with one teacher, lecturer, consultant or scientific and technical supervisor (individual education) . This method can be applied in distance learning mainly through technologies such as telephone, voice mail, fax, e-mail, Skype system.

• A method based on the presentation of teaching material by the teacher until the students play an active role in communication (one-to-many learning). This method is used by a teacher, mentor, consultant, when the whole group is trained and consulted, they are approximately equally prepared and the end result is the same for everyone. For example, this happens when a teacher prepares students for state exams or when he advises students in various disciplines. This method, typical of the traditional education system, is being developed on the basis of modern information technologies. In this way, lectures recorded on audio or video tapes read on radio or television are complemented in modern distance learning by so-called electronic lectures

distributed on computer networks using newsletter systems. Electronic lecture, prepared and selected by teachers, lecturers,

• A method that is characterized by active interaction between all participants in the educational process. This method is focused on the group work of students and is of greatest interest for distance learning. It provides extensive use of research and problem-based teaching methods. The role of the teacher in such training comes down to setting the topic for students, pupils or candidates for scientific degrees (setting a learning task), and then must create and maintain such a favorable communication environment and psychological climate in which students could to work in collaboration. The teacher is responsible for coordinating and managing the course of the discussions, as well as for the preparation of materials, the development of a work plan, the issues and topics discussed.

• The project method involves a complex learning process that allows the student to be independent in planning, organizing and controlling their learning and cognitive activities, resulting in the creation of a product or phenomenon. The basis of the project method is the development of cognitive, creative interests of students, the ability to independently form their knowledge.

• The method of problem-based learning is based on the consideration of complex cognitive tasks, the solution of which is of significant practical or theoretical interest. In the process of problem-based learning, students' attention is focused on important problems, they stimulate cognitive activity and contribute to the development of skills and abilities to solve these problems. The role of the teacher is reduced to observation and support, but no more.

• The research method of teaching is characterized by the presence of clearly defined goals that are appropriate and relevant to the participants, well thought out and justified structure, extensive use of an arsenal of research methods, use of scientific methods for processing and presenting results.

Conclusion

Distance learning is a special type of learning, the main feature of which is the interactivity of the interaction between all participants in the educational process. The presence of a teacher is not necessary, as distance learning is a process of self-study of the material. In distance learning, a student-centered approach to learning is applied, maximum optimization and individualization of learning is carried out. Distance learning is characterized by both general pedagogical didactic principles of teaching and specific principles. The use of new information and telecommunication technologies enables the interaction of the participants in the distance learning, regardless of their location, through e-mail, chat, forum, videoconference, webinar, online seminar.

The methodological feature of distance learning is that the acquisition of knowledge, skills and abilities provided in the curriculum is carried out not in traditional forms of education (lectures, lessons, seminars, etc.), but through independent work of the student by various means. - information carriers. At the center of the process of distance learning is not teaching, but learning, i.e. the independent cognitive activity of the student in mastering knowledge, skills and abilities. At the same time, the student must not only master the skills of working with a computer, but also how to work with the educational information he encounters in the process of distance learning.

Creating an electronic textbook

In modern educational institutions a lot of attention is paid to the computer support of professional activities. The educational process uses training and testing programs in various disciplines of the learning process.

Statistical studies conducted at the college on the use of training and testing programs in various disciplines (as part of the educational process and computer courses) show that their use has increased not only interest in future majors but also academic performance in this discipline. Most students perceive information better visually, especially if it is of high quality. These programs enable every student, regardless of the level of education, to actively participate in the educational process, to individualize their learning process and to exercise self-control. Do not be a passive observer, but actively acquire knowledge and evaluate your capabilities. Students begin to enjoy the learning process itself, regardless of external motivating factors. It also contributes to the fact that with the information technology of computer teaching, certain functions of a teacher are temporarily transferred. And the computer can act as a patient teacher who is able to point out mistakes and give the right answer and repeat the task over and over again without expressing irritation or annoyance.

Time passes and programs quickly become obsolete. Both the study material and the form of presentation.

Basic concepts

The following definitions of the e-textbook follow from various sources:

is a collection of graphic, text, digital, speech, music, video, photo and other information, as well as printed user documentation. Electronic publication can be performed on any electronic medium - magnetic (magnetic tape, magnetic disk, etc.), optical (CD-ROM, DVD, CD-R, CD-1, CD +, etc.), as well as published in electronic computer networks.

- must contain systematic material on the relevant scientific and practical field of knowledge, to ensure creative and active mastery of knowledge, skills and abilities of pupils and students in this field. UEI must be distinguished by a high level of performance and decoration, completeness of information, quality of methodological tools, quality of technical implementation, clarity, logic and consistency of presentation.

- an educational publication containing a systematic presentation of an academic discipline or part thereof, a part corresponding to the state standard and curriculum and officially approved as this type of publication.

- it is an electronic publication that partially or completely replaces or supplements the textbook and is officially approved as this type of publication.

- this is a text presented in electronic form and equipped with an extensive system of links that allows you to instantly move from one of its fragments to another according to a certain hierarchy of fragments.

The main forms of the electronic textbook

As in the creation of any complex system, in the preparation of an electronic textbook, the talent and skill of the authors are crucial to success. However, there are well-established forms of electronic textbooks, more precisely constructive elements from which a textbook can be built.

Test. Externally, this is the simplest form of electronic textbook. The main difficulty is the selection and formulation of questions, as well as the interpretation of the answers to questions. A good test allows you to get an objective picture of the knowledge, skills and abilities that the student has in a particular subject area.

Encyclopedia. This is the main form of electronic textbook. At the content level, the term encyclopedia means that the information contained in the e-textbook must be complete and even redundant in terms of educational standards.

Task book. The notebook with tasks in the electronic textbook most naturally performs the function of learning. The student receives educational information that is needed to solve a specific problem. The main problem is the selection of tasks that cover the entire theoretical material.

Creative environment. Modern electronic textbooks should provide the student with creative work with learning objects and models of systems of interacting objects. It is the creative work, better within the project formulated by the teacher, that contributes to the formation and consolidation of a set of skills and abilities in the student. The creative environment allows students to work collectively on a project.

Author's environment. The e-textbook must be adaptable to the educational process. That is, they allow to take into account the characteristics of a particular educational institution, a particular specialty, a particular student. This requires an appropriate authoring environment. Such an environment, for example, ensures the inclusion of additional materials in the electronic encyclopedia, allows you to fill in the problem book, prepare printouts and textbooks on the subject. In fact, it is a kind of tool that creates the e-textbook itself.

Nonverbal environment. Traditionally, electronic textbooks are verbal in nature. They present the theory in textual or graphical form. This is the legacy of printed publications. But in the electronic textbook it is possible to implement the methodical method "do as I do". Such an environment gives the e-textbook the features of a living teacher.

The listed forms of electronic textbook can be realized as separate electronic textbooks or grouped in a single ensemble. It all depends on the intention of the "author". The author must have knowledge of the history and possibilities of electronic textbooks. The success of the e-textbook will depend on how it "fits" into the educational process of the educational institution.

Recommendations for developing an electronic textbook

The main stages of the development of an electronic textbook

1. Choice of sources

2. Development of content and list of concepts

3. Processing of texts in modules by sections

4. Realization of hypertext in electronic form

5. Development of computer support

6. Selection of material for multimedia realization

7. Development of sound

8. Performing soundtrack

9. Preparation of material for visualization

10. Visualization of materials

And now in more detail:

1) when developing it is advisable to choose as sources / such printed and electronic publications that

• most fully comply with the standard program,

• concise and convenient for creating hypertexts,

• contains a large number of examples and tasks,

• are available in convenient formats (collection principle).

2) the material is divided into sections, consisting of modules, minimal in volume, but closed in content, and a list of concepts that are necessary and sufficient to master the subject.

3) the texts of the sources are processed in accordance with the content and structure of the modules; texts that are not included in the lists are excluded and those that are not in the sources are added; links between modules and other hypertext links are defined.

This is how a hypertext project for computer realization is prepared.

4) the hypertext is realized in electronic form. The result is a primitive electronic edition that can now be used for educational purposes.

5) computer support is being developed. Instructions for users to use the smart core are being developed.

Now the e-textbook is ready for further improvement (sounding and visualization) with the help of multimedia tools.

6) the ways of explaining certain concepts and statements are changed and texts are chosen to replace the multimedia materials.

7) scenarios have been developed for visualization of the modules for maximum clarity, maximum unloading of text information on the screen and use of the emotional memory of the student to facilitate the understanding and memorization of the studied material.

8) texts are visualized, ie. computer execution of the developed scenarios with the help of drawings, graphics and possibly animation.

This completes the development of the e-textbook and begins its preparation for action. It should be noted that the preparation for operation of an electronic textbook may include some adjustment of its content and multimedia components.

Software support

Currently, among the main requirements for creating electronic textbooks for the learning process: scientific, accessible, problematic, much attention is paid to the visibility of learning: the sensory perception of the studied objects. Visualization of learning with the help of computer programs has some advantages over learning from traditional textbooks.

In programs with multimedia presentation of information it becomes possible to create not only visual but also auditory sensations. Electronic textbooks significantly improve the quality of the visual information itself, it becomes brighter, more colorful, more dynamic. There is a possibility for visual-image interpretation of the essential properties not only of certain real objects, but even of scientific laws, theories, concepts.

Electronic textbooks in Word, PowerPoint format

It is not necessary to submit documents in these common formats. With their help you can easily and quickly prepare a high quality electronic textbook with built-in self-monitoring system.

Electronic textbooks in Acrobat format

It has an approved .PDF format for electronic documents of the world-famous company Adobe Systems. The freely distributed Acrobat Reader is used to read e-textbooks in this format. Acrobat is widely used to create e-textbooks, which is quite accessible to educational organizations. Many millions of electronic documents in the world are made in .PDF format.

Electronic textbook in 3D Studio MAX

There are many widely used modeling programs, but one of the best 3D modeling and animation programs for creating visual effects is 3D Studio MAX. 3DMAX allows you to model a lot using a variety of basic objects. After building geometric objects and their correct location, you can apply “materials” to them, to impose textures on the geometry.

The 3DMAX program is attractive because you can really feel like the creator of an entire film, to act as a director, cameraman, composer, everyone who creates a film. Of course, this process takes a long time, but if you like it, then it goes unnoticed.

There are currently many freely available programs with which you can create a visual, colorful and interesting electronic textbook for students.

Conclusion

As the analysis shows, the majority of students in the early stages of their education realize the need to use a computer in their professional activities. The effect of knowledge is enhanced if the educational tasks solved within the information technologies of training are related to the practical activities of the future specialist or are of interest in his current educational work.

Use of Internet resources in educational activities

In the new millennium we have entered the information age. The new era poses a new problem for school education - to prepare students for life in the rapidly changing information society, in a world where the process of new knowledge is accelerating, there is a constant need for new professions. from continuous professional development. And a key role in solving this problem is played by the ability of modern man to possess information and communication technologies. New information technologies are becoming an integral part of modern life.

Our information 21st century (the age of high technology) requires new approaches to the education system. At present, the goals and technologies in education in most countries around the world reflect the ideas of the humanities in the pedagogy and philosophy of education. Here we are talking about the formation of personal development as a major component of this goal, that is, learning should be developed in terms of developing independent creative and critical thinking.

A broad information field of activity is needed for these purposes. There are different sources of information, different points of view, points of view on the same problem, which encourage a person to think independently, to seek his own reasoned position. This approach requires the definition of certain conditions for the organization of such a system.

One of the tasks of the modern school is to increase the variety of types and forms of organization of students' learning activities. Computer technologies integrated with the pedagogical system for organizing educational activities can significantly increase the educational opportunities of students, even make the choice and implementation of an individual trajectory in an open educational space.

The technological basis of our modern society are global telecommunications networks. The largest such network in the world is the Internet, which has emerged as a means of communication. The Internet contains a large amount of information that is educational in nature and can be used in the classroom and outside of school hours. I believe that both teachers and students should be aware of the possibilities of the Internet and strive to use them.

The Internet provides unique opportunities for full education and personality formation. It is not only an almost inexhaustible array of educational information, but also acts as a means, a tool for its search, processing, presentation. The Internet is a unique source of active intellectual and communicative activity of the student, his creative self-realization, as a result of which he has the opportunity to acquire the necessary knowledge, skills and abilities.

With all the variety of information and telecommunication technologies, the world information computer network Internet occupies a central place. The main direction in the use of global networks is the development of scientific and pedagogical bases for the creation and use of the information environment for continuing education, based on the creation of a common educational space.

The modern Internet is characterized by the existence of a serious problem for organizing a global search for information. The so-called have been developed search engines that use the desired word or combination of words to find links to those web pages where that word or combination is represented.

The Internet provides an opportunity for collective access to educational materials, which can be presented in the form of simple textbooks (electronic texts) and in the form of complex interactive systems, computer models, virtual learning environments.

The Internet is now a means of communication. Special educational Internet resources have become an integral part of the national education system.

Characteristics of the use of Internet resources in educational activities

There is currently no doubt about the relevance and demand for the integration of the Internet in the learning process. In this case, the main subject of discussion is not why, but how to apply modern computer technology in the learning process. The use of the Internet will significantly expand the range of real communicative situations, will increase the motivation of students and will allow them to apply the acquired knowledge, skills and speech skills to solve real communicative problems.

The use of Internet technologies by teachers in their lessons will inevitably take the general education lesson out of the scope of both the lesson and the subject itself.

By connecting to the Internet, schools meet their needs for searching, collecting and processing material, which in turn expands the possibilities for achieving educational goals and objectives. The task of the modern school is the successful development of the student's personality, the change and improvement of his personal data, which is an important condition for the development and formation of the student, as he becomes a full user of the global information space. The frequent use of Internet technologies and telecommunications by schools in the educational process shows us how we apply and how we work, using innovative tools that make modifications in a variety of ways: change the goals and objectives of the lesson, curriculum, forms and methods of teaching of students.

Is it worth considering what innovations can be mastered in school using the Internet? Everyone knows that the lesson is at the heart of the educational process, so it is necessary to emphasize some points that allow you to properly apply the goals and objectives of the lesson.

A teacher who is up to date is now psychologically and technically ready to use information technology in teaching. Internet technologies provide educational activities in the educational process, using application and tool software.

Currently, the Internet is part of a teacher's life, as it becomes a familiar and appropriate means of learning new material.

Teachers often use in their lessons the material they have found on the information network, as the unlimited possibilities of the Internet make it easier to find educational material in preparation for lessons.

Teachers prefer to find educational materials on the Internet in electronic form, as it allows: • improve your own knowledge;

• improve your knowledge through distance learning;

• finding teaching materials on the Internet for preparing and conducting lessons;

• receive documents from the server of the Ministry of Education;

• to be informed about the latest pedagogical materials;

• receive information about the latest pedagogical discoveries, send their methodological developments;

• receiving software;

• publish their articles, plans, lesson notes;

• correspondence with teachers from other regions;

• select and order methodological literature through online stores.

The use of online lessons by a teacher in his activity allows

• educate children and work both in the classroom and outside the classroom individually and in groups, in pairs. The competent work of the children, under the guidance of a teacher, helps to unite the children's team, increases the information literacy of students.

Consider the possibilities of Internet resources for creating a modern lesson:

• through the Internet the teacher can fill in his methodical money box, as he has been using his traditional plans for many years;

• study the experience of other teachers and use their recommendations and developments in their lessons;

• Publish your personal lesson plans, articles, innovative ideas on websites.

Multimedia tools make it possible to ensure the best, compared to other technical teaching aids, application of the principle of visibility, which occupies a leading position in the educational technologies of primary school. The use of multimedia presentations makes it possible to make lessons more interesting and dynamic, includes not only sight but also hearing, emotions, imagination in the process of perception, facilitates the process of memorizing the material studied by students, helps to "immerse" "Students in the subject of study, create the illusion of joint presence, empathy in the lesson with the object studied, to encourage the formation of three-dimensional and vivid ideas.

The teacher develops a plan for his lesson and conducts it so that it is unusual, more interesting. For this purpose, he demonstrates visual material from the Internet (photos, tables, photos ...), shows multimedia material. He often uses video lectures and class presentations.

You should also pay attention to the opportunities related to distance learning via the Internet, as well as participation in various competitions, Olympiads, passing tests. Elementary school students actively participate in international competitions in subjects - mathematics, languages, the world around them and win prizes.

Participation in Olympiads helps students to develop cognitive interest, logical thinking and the formation of creative activity.

Students' access to Internet information resources will provide basic and additional educational material necessary for their training, teacher performance, self-study and leisure activities.

Currently, the school provides students and teachers with the opportunity to use in the learning process:

• participation in teleconferences where scientific and professional issues are discussed;

• access to open file servers on the Internet to receive freely distributed software tools;

• remote access to databases, library catalogs and electronic library files when preparing teaching materials for subjects;

• receiving electronic periodicals on selected topics;

• Participation in an online teleconference on the Internet;

• independent and control tests.

Internet resources can also be used by teachers to improve their skills (network methodological associations and virtual pedagogical councils, distance learning, participation in network projects, etc.).

Application of web search technology in modern education

The use of interactive learning technologies is designed to solve a number of problems, including the following:

• the development of communication skills, the establishment of emotional contacts between students;

• development of cognitive skills, general education skills and abilities (analysis, synthesis, goal setting, information retrieval, knowledge structuring, etc.);

• ensuring the formation of skills for self-assessment and decision-making, which determine the strategy of behavior;

• ensuring relaxation of the participants in the educational process, elimination of nervous stress, switching of attention, change of the forms of activity, etc.

A particularly effective type of modern interactive technologies is the interactive game, which creates the best conditions for development and self-realization of the members of the educational process.

Today, educational quests are gaining in popularity. Web quest technology is a problem-based project with role-playing elements that use Internet information resources. This technology combines active learning methods with the advantages of information and interactive technologies.

The concept of "quest" originally meant one of the ways to build a plot - the journey of the characters to a specific goal by overcoming difficulties.

Educational demand is a pedagogical technology that includes a set of problem tasks with elements of role-playing that require all kinds of resources, and above all Internet resources, to perform. Quests are being developed for maximum integration of the Internet in different subjects at different levels of education in the educational process. They can cover a single problem, subject, topic, or they can be interdisciplinary.

Quest technology came into pedagogy from the world of computer games in the late 20th century. The computer company "Sierra" in the 90s of last century released a series of games King's Quest, Space Quest, Police Quest, etc., which appealed to gamers.

Unprecedented entertainment venues have also begun to appear around the world, where customers have been encouraged to try to get out of a locked room by solving very difficult problems. Such establishments began to be called "escape rooms." Escape room is an intellectual game in which players are locked in a room from which they must escape in time, looking for objects and solving puzzles. Some members of the genre include a detective story or other plot to immerse players in a unique atmosphere.

The term "search" as an educational technology was first proposed in 1995 by Bernie Dodge, a professor of educational technology at the University of San Diego (USA).

The scientist has developed innovative Internet applications for integration into the educational process in teaching different subjects at different levels of education. He called the search a site that contains a problematic task and involves an independent search for information on the Internet.

He identified the types of tasks for web quests and also suggested using a number of criteria that would make the assessment possible:

• research and creative work;

• quality of argumentation, originality of the work;

• skills for working in a microgroup;

• oral presentation;

• multimedia presentation;

• written text, etc.

Dodge defined web search as a model (technical resource or application on the Internet) for the inclusion of Internet resources in the educational process to solve educational problems (1995). Other researchers view web search as an educational technology, a didactic tool, and at the same time aimed at solving an educational problem with the help of the Internet.

Web search as a form of problem-based learning

Web search is one of the means of using information and communication technologies in order to create a lesson focused mainly on students involved in the learning process.

A feature of web quests is that some or all of the information presented on the site for individual or group work of students is actually on different websites. Thanks to the existing hyperlinks, students do not feel this, but work in a single information space. The student is given the task to collect materials on the Internet on a particular topic, to solve a problem using these materials. Links to some of the sources are provided by the teacher, and some can be found on their own with the help of conventional search engines. Upon completion of the search, students either submit their own web pages on the topic, or other creative work in electronic, printed or oral form.

Webquests have a number of advantages, including:

• motivating students to learn new material;

• organization of work in the form of targeted research, unlimited in time;

• activation of individual or group activities of students, which they manage themselves.

When working on a web quest, a number of competencies are developed:

• the use of information technology to solve professional problems (including searching for the necessary information, processing the results of work in the form of computer presentations, websites, flash videos, databases);

• self-training and self-organization;

• the ability to find several ways to solve a problem situation, to determine the most rational option, to justify your choice;

• ability to speak in public (mandatory analysis of work with questions, discussion).

Web search technology allows you to fully realize the visibility, multimedia and interactivity of learning.

• Visualization includes different types of demonstrations, presentations, videos, displaying graphic material in any quantity.

• Multimedia adds to the traditional methods of teaching the use of sound, video, animation effects.

• Interactivity combines all of the above and allows you to influence the virtual objects of the information environment, helps to introduce elements of student-centered learning, gives students the opportunity to fully discover their abilities.

How can web search technology increase students' motivation?

• Multimedia can significantly improve the psycho-emotional mood in learning.

• Modality, ie. the use of as many sensory channels as possible for the perception of information.

• Word-image. With the help of search it is possible to demonstrate both dynamic processes and static images in the shortest possible time.

• Structured presentation of the study material. In terms of technology, web search is a branched structure for presenting information realized through hyperlinks, which contributes to the organization of clear logical connections, promotes a comprehensive understanding of the studied problem, allows you to quickly adjust the content of the studied topic and allows students to independently build an individual learning trajectory.

• The exploratory nature of technology provides an opportunity to intensify the research activities of teachers and students. When working with large amounts of information, students develop the skills and abilities for critical thinking, the ability to make choices and take responsibility for it, to evaluate the effectiveness of information retrieval and to correctly determine the amount of information offered.

• Visualization of the results of the work and evaluation of the work done. The step-by-step results of the work displayed on the screen make the assessment of the students' activities visual, the reflection - conscious.

In the process of creative work, students do not receive "ready to use" knowledge, but engage in search activities. Of course, each web quest should not be isolated from the educational process as a whole, it needs a direct connection with the previous and subsequent cognitive activities of students.

In the course of organizing the work of students on web quests, the following goals are realized:

• educational - involvement of each student in an active cognitive process. Organizing individual and group activities of students, identifying skills and abilities for independent work on the topic;

• developing - the development of interest in the subject, the creative abilities of students' imagination; formation of research skills, public speaking, skills for independent work with literature and Internet resources; broadening horizons, erudition;

• educational - education of tolerance, personal responsibility for the implementation of the chosen work.

It should be noted that search technology is integrated, as evidenced by the following:

• the search algorithm is built in the logic of problem-based learning technology - from problem formulation to ways to solve it, present the result and reflection, which affects the development of the student as an active subject of life;

• Educational "products" performed individually or in a group as a result of completing a search can be different: from solving a problem in the form of answering a question to creating multimedia presentations, videos, websites, brochures, etc. In this sense, educational;

• the searches are interconnected with the ideas of the "instrumental" pedagogy and the method of J.'s projects. Dewey (USA) from the late 19th century;

• the intrigue and the plot, introduced in this technology, are elements of game training - role-playing or adventure game, which is essentially a team game;

• the use of special computer programs, the information capabilities of the Internet both during implementation and in the presentation of the search result, the exchange of views characterizes this technology as information and communication.

Thus, the educational quest is an integrated technology that combines the ideas of the project method, problem and game learning, teamwork and ICT; combining targeted search in the performance of the main problem and a series of auxiliary tasks with adventure and (or) game based on a specific plot.

The essence of the search is close to some well-known games in pedagogy, such as performing tasks "at stations", orienteering with obstacles ("Guides", "Cossacks-robbers", "Treasure Hunt", etc.).

The difference between quest technology and traditional games in pedagogy lies in the problematic tasks and the search for information on the Internet. Web quests are characterized by deep "immersion" in the open information space (presentation of the results of Internet searches on websites or social networks, using special computer programs).

Classification, structure and stages of web search

B. Dodge identifies three principles for classifying web quests.

1. According to the duration of web quests are divided into short-term and long-term.

The learning goal of short-term web quests is the acquisition of knowledge and their integration.

The result of a short-term web search will be a large amount of information that the student will have to deal with. Such a web quest is designed for a period of one to three sessions in the classroom.

The educational goal of the long-term web quest is to expand and clarify knowledge. The result of a long-term web search will be an in-depth analysis of the knowledge gathered and its transformation into a new understanding presented to readers both online and outside cyberspace. The duration of such a web quest is from one week to a whole month of study time.

Forms that long-term webquests can take:

• a database in which the categories are created by the students themselves;

• the microworld, representing the physical space in which students can move;

• an interactive story or case created by the students themselves;

• a document that describes the analysis of a contradictory situation, sets out a position (opinion, theory) that students must approve or refute;

• a fictional person who can be interviewed live. The questions and answers are invented by the students after studying the characteristics of this person.

2. By subject content: monoprojects and interdisciplinary web quests. In other words, web quests can cover a specific problem, subject, topic, or can work on other topics. As practice shows, interdisciplinary web quests are more interesting, more intense. At the same time, developing such searches requires more time, knowledge and collaboration with other teachers.

3. By type of tasks performed by students:

• retelling - demonstrating understanding of the topic based on the presentation of materials from various sources in a new format: creating a presentation, poster, story;

• planning and design - development of a plan or project based on set conditions;

• self-knowledge - all aspects of the study of personality;

• compilation - transforming the form of information obtained from different sources: creating a recipe book, virtual exhibition, time capsule, culture capsule;

• creative task - creative work in a certain genre: creating a play, poem, song, video;

• analytical task - search and systematization of information;

• detective, puzzle, mysterious story - conclusions based on contradictory facts;

• reaching consensus - developing a solution to an acute problem;

• evaluation - substantiation of a certain point of view;

• journalistic investigation - objective presentation of information (separation of opinions and facts);

• persuasion - inclination towards one's side of opponents or neutral persons;

• research - the study of various phenomena, discoveries, facts based on unique online sources.

Web quests have been used for a long time and have acquired a clear structure. Most authors, relying on the general structure developed by B. Dodge, develop their own web quests, consisting of the following components:

Introduction - the formulation of the topic, a description of the main roles of the participants, a scenario of the mission, a work plan or an overview of the entire mission. The aim is to prepare and motivate students. Motivational and cognitive values are therefore important here.

Task (Task) - a clear and interesting description of the problem task and the form of presentation of the final result:

• problem or puzzle to solve;

• a position to be formulated and defended;

• the product to be created;

• the abstract that will be created;

• report or journalistic report;

• creative work, presentation, poster, etc .;

The task must be problematic, clearly formulated, have cognitive value.

Process (Implementation) - a precise description of the main stages of work; action guide, useful tips for gathering information (checklist of questions for analyzing information, various tips for performing a specific task, "blank" web pages for reports, recommendations for the use of information resources, etc.). From a methodological point of view, the material must be distinguished by relevance, variety and originality of resources; various tasks, their focus on the development of high-level thinking skills; the availability of methodological assistance - support and additional materials for the implementation of the tasks; when using elements of role play - adequate choice of roles and resources for each role. Here you can specify links to resources and not allocate a separate section for them.

Evaluation - a description of the criteria and parameters for evaluating the performance of a web search, which is presented in the form of an evaluation form. The evaluation criteria depend on the type of learning tasks that are solved in the web search. The methodological evaluation depends on the adequacy of the presented evaluation criteria for the type of task, the clarity of the description of the evaluation criteria and parameters, the ability to measure the results of the work.

Conclusion - a short and accurate description of what students will be able to learn by completing this web quest. There must be a connection with the introduction.

Credits (materials used) - links to resources used to create web search. This section can be combined with the Process section.

TeacherPage - guidelines for teachers.

The following stages of web quest work are distinguished.

1. At the first stage the teacher conducts preparatory work, introduces the topic, formulates the problem. The topics are selected so that when working on them the student to deepen his knowledge of the subject studied or to acquire new knowledge. The topics should be interesting and useful for the students, so that the student can choose a business according to his taste and work, realizing the need to solve the problem. Several students can choose the same topic, the more interesting it will be to discuss the results, as the work may cover the topic from different points of view. Students get acquainted with the basic concepts of the chosen topic, materials from similar projects. It is possible to work in groups when performing tasks.

2. At the stage of the task the students' research skills are formed. In the search for answers to the questions posed among a large amount of scientific information, critical thinking develops, the ability to compare and analyze, to classify objects and phenomena, to think abstractly. Students acquire skills to transform the information obtained to solve problems.

3. At the stage of registration of the results of the activity the comprehension of the performed research is carried out. The work involves the selection of the most important information and its presentation in the form of a website, html page, slideshow, book, animation, poster or photo essay. At this stage, the role of the teacher as a consultant is very important.

4. The discussion of the results of the work on web quests can be held in the form of a conference, so that students have the opportunity to show their work, realizing the importance of the work done. At this stage, such personal traits as responsibility for the work done, self-criticism, mutual support and the ability to speak in public are set.

5. The last stage is the evaluation, but the preliminary (before the start of work) announcement of its principles is mandatory for web search. The evaluation criteria are different (according to the time of presentation, originality, innovation, etc.). The assessment summarizes the experience that the student has gained in performing independent work with the help of web search technology.

• The introduction is motivating and educational value.

• Task - problematic, clarity of wording, cognitive value.

• The order of work and the necessary resources - a precise description of the sequence of actions; relevance, diversity and originality of resources; various tasks, their focus on the development of high-level thinking skills; the availability of methodological assistance - support and additional materials for the implementation of the tasks; when using elements of role play - adequate choice of roles and resources for each role.

• Evaluation - the adequacy of the presented evaluation criteria for the type of task, the clarity of the description of the evaluation criteria and parameters, the ability to measure the results of the work.

• Conclusion - connection with the introduction, an accurate description of the skills that students will acquire by completing this web quest.

• Web search is a complex task, so the evaluation of its implementation should be based on several criteria focused on the type of problem task and the form of presentation of the result.

B. Dodge recommends the use of 4 to 8 criteria, which may include an assessment of:

• research and creative work,

• the quality of the argument

• originality of the work

• skills for working in a microgroup,

• oral presentation,

• multimedia presentation,

• written text, etc.

It is very important at the last stage, when there is a public presentation of the work done, to organize a constructive discussion.

open evaluation of one's own work and the work of colleagues allows a person to learn to be correct in the comments, to identify the most interesting findings in the completed tasks and to formulate their own evaluation criteria.

Consider the general criteria for evaluating web search and the rationale for these criteria from best to worst.

1) Understanding the task

The work demonstrates an accurate understanding of the task.

2) Complete the task

Works from different periods are evaluated; the conclusions are reasoned; all materials are directly related to the topic; the sources are cited correctly; use of information from reliable sources.

3) The result of the work

Clear and logical presentation of information; all information is directly related to the topic, accurate, well structured and edited. The critical analysis and evaluation of the material, the security of the position are demonstrated.

4) Creative approach

Different approaches to solving the problem are presented. The work is characterized by a bright personality or expresses the point of view of a microgroup.

Web search, using Internet information resources and integrating them into the educational process, helps to effectively solve a number of practical problems: the participant in the search gets an additional opportunity for professional testing of their creative abilities and skills; learns to use the information space of the Internet to expand the scope of his creative activity, etc.

Design a web quest based on a technological map

Think about the elements of the structure and requirements for developing demand.

1) The title should be short, attractive and original. The focus of demand. Priority is given to a subject or one of the areas of educational activity - patriotic, environmental, aesthetic or other (monoquest) or a group of subjects and a complex of educational areas (interdisciplinary or complex search).

2) Purpose and objectives. The goal is generalized and must be diagnostic. In defining the goal and tasks, educational standards serve as a guide.

3) Duration. Educational search can be developed for one lesson, series of lessons, week or other period of time (short or long).

4) Age of students / target group. Taking into account the age characteristics of students (preschool age, primary, secondary or high school students, youth, adults) and their educational needs, including the specifics of health.

5) Legend. A legend is a fictional story about an event or person that precedes the start of the game. When you develop it, creativity is welcome: exaggerating events, changing famous characters, etc. So, thanks to imagination, you can be anywhere in search or create a planet.

6) Heroes of the mission. The authors of the search offer a list of characters and their characteristics. The characters of the search can be both completely fictional and real. The choice of the roles of the participants in the mission is prescribed by the rules: towing by lot, division according to some criteria depending on the purpose and content of the mission.

7) Main task / main idea. The main task must be problematic. When developing the main task, you can consider the types of tasks of J. E. Farreni. Creativity and inspiration will help you diversify the types of tasks.

8) The plot and the progress on it. Represents a series of events in the game (basic scheme), as a sequence of stages, stations for which progress rules have been developed, bonuses or penalties can be applied. It is desirable to include traditional elements in the plot: exposition, plot, development of the action, culmination and denouement. The plot is limited in time both historically (the game can take place in any historical epoch) and physically.

9) Tasks / obstacles. In order to progress on the plot, in addition to the main task, additional tasks of different nature are developed; it is desirable to offer problematic among them.

10) Navigators. Various tips, tags, landmarks that contribute to the organization of targeted search, aimed at solving both the main and additional tasks.

11) Resources. To complete the students' search, various resources can be offered: a list of links, including Internet resources, educational sites; multimedia presentations; videos, including social; electronic gadgets; devices and materials, etc.

12) Criteria for evaluating the activity of students. The criteria are developed by the teacher depending on the type of tasks offered and the educational "product" performed.

13) The result of the search is an educational "product" and reflection. The result should be related to the implementation of the main task, for example: a problem is solved, a riddle is solved, a discovery is made, etc. An educational "product" can be a social video, a booklet, research results, etc.

Reflection is organized by the teacher in different aspects, emotional-value, volitional and social) and with the help of various techniques (reflective screen, self-assessment of work, emoticons, etc.).

As a result of performing the tasks of web search, students learn many new things, learn to work with network services. They have the opportunity to show their creativity. But most importantly, they learn to communicate, discuss problems and find common ground.

Quest technology is a technology that combines targeted search to perform the main problem and a series of auxiliary tasks with adventure and (or) game based on a specific plot.

The concept of this technology is based on the idea of organizing independent activities of students for their personal development in a team in solving the main problem of search (central task), performing additional tasks and moving on the plot using navigators, tips, information resources in Internet. When implementing the technology, both in the classroom and in extracurricular activities, it is necessary to create a friendly atmosphere, to stimulate students to independent search and creativity.

Thus, search technology, like any pedagogical technology, has an invariant part, represented by structural elements and requirements for their content, reflected in the technological map. Variability is realized in the work of a teacher who will develop a legend, plot, etc. taking into account the pedagogical skills, the specifics of the students and the possibilities of the educational organization.

The design of educational demand in the logic of the system-active approach implies, when determining the purpose and tasks of demand, its content and instrumental content, orientation to learning outcomes as a system-forming component of the standard: subject, meta-subject and personal results determined by state educational standard.

Project research work on “Using the language of instant messaging platforms for communication between teenagers”

Along with the growing and almost universal use of smartphones and mobile devices, instant messaging platforms (IM / messengers) are very popular, especially among young people.

Research problem: Study of the use of instant messaging platforms by teenagers.

methods:

1. Analysis of literature and Internet resources

2. Studies of children aged 12 to 14 years

3. Exploring the use of instant messaging and language platforms by students

Relevance. In the era of rapid development of information technology, the computer, mobile phone, smartphone are perceived as an integral part of our lives. Most modern people, including children in general, can not imagine learning or free time without it and sit for hours alone with a lighted screen.

There are currently many means, forms and methods of communication in the world, in particular they use the global platform for instant messaging, where people communicate, share all kinds of information, get to know each other. It should be noted that the instant messaging platform is evolving quite rapidly, turning from a great toy for individual intellectuals into a source of all kinds of useful information for everyone, and is also becoming a major form of virtual communication.

The relevance of the chosen topic is explained by the fact that the study of problems with the use of instant messaging platforms is of particular importance for the rapid development of computer technology.

Subject of research: the language of instant messaging platforms.

Object of research: instant messaging platforms.

Objective: To learn the use of the language of the instant messaging platform by teenagers for communication.

Instant messaging platforms

Messenger is a platform that allows users to instantly send and receive text messages. Over the years, the boundaries between instant messaging and social media platforms have blurred, and the functionality of messengers has also expanded to include the ability to send photos, videos and other multimedia content. Some IM platforms, such as Skype, also have a video chat feature.

According to a recent study by the Pew Research Center, instant messengers are widely popular among teenagers. The report, entitled “Teenagers’ Review, Social Media and Technology 2015”,

includes some interesting statistics on teenagers and their use of messengers and social networks for instant communication. (find new information)

Here are some of the statistics published in the report:

91% of teenagers use mobile devices to access the Internet 33% of teenagers use instant messaging applications (eg WeChat, WhatsApp, etc.)

The average teenager sends and receives about 30 text messages a day.

47% of teenagers use video messaging apps (such as Skype and Facetime Instagram).

76% of teenagers use social networks that can send instant messages and other content (for example: Facebook, Instagram, Twitter and Snapchat)

These apps are a great way to keep in touch with friends and family, but there are risks associated with using them. Often children and adolescents are either unaware of the dangers or tend to ignore the warnings they receive (suicide propaganda, fraud)

a) social platforms

Young people do not want to sit on social networks next to their parents. Teenagers are looking for new platforms for communication. In addition to traditional networks, the attention of teenagers is gained by relatively young products - instant messaging, photo and video applications (in addition, the main preference is given to mobile versions of sites).

WhatsApp
Cross-platform mobile application. In addition to messaging, you can use the service to send images, videos, and audio multimedia messages. Available for iPhone, BlackBerry, Android, Nokia S40, Nokia Symbian and Windows Phone.

The messenger's history began in 2009 when WhatsApp Inc. was founded in Santa Clara. In April 2012, the service's subscribers sent 2 billion, in August 2012 - 10 billion, and in June 2013 - already 27 billion messages every day. In November this year, WhatsApp had 350 million active users per month.

Skype

Skype is free software that supports text and video communication over the Internet between computers. Skype software clients for Mac OS X, iOS, Windows, Linux, Windows Phone, Open webOS, Android, PSP, Maemo, Xbox 360, PlayStation Vita, BlackBerry have been released.

Viber

Do you want to communicate with friends and family around the world without worrying about expensive communication? Want to make free video calls and voice calls directly from your phone or computer? Then you just need to download Viber messenger on your phone or computer and start chatting today!

Instagram

Instagram is a free photo sharing app that allows users to take photos, apply filters to them and share them through its service and a number of other social networks.

Telegram

Telegram is a multi-platform messenger that allows you to exchange messages and media files in many formats. It uses its own closed source server, which operates at the facilities of several companies in the United States and Germany, funded by Pavel Durov at about $ 13 million per year, and several open source clients, including those licensed under the GNU GPL .
The number of monthly active users of the service at the end of March 2018 is over 200 million people.

Vine

The mobile video service became widely available in January 2013 after a promising startup was purchased by Twitter. The app allows you to record videos for six seconds - something like “gif”, but with audio recording. The videos created are easily embedded in Twitter and Facebook feeds.
Multi-frame videos are as easy to shoot as they are easily embedded in popular social media shows and have therefore begun to attract the attention of young users. Vine’s teenage audience grew by 639% between January and September 2013, according to a study by GlobalWebIndex.

Pheed

The social network was launched in October 2012. The platform combines elements from Twitter, Facebook, Instagram, YouTube, SoundCloud and other services, which brings it closer to popular Asian networks such as WeChat, KakaoTalk and LINE. In Pheed you can publish texts, photos, videos, audio recordings and file links, as well as create online broadcasts. The main feature of the network is the wide possibilities for using a paid subscription for accounts, as half of the subscription money is received by developers, half - by content creators.

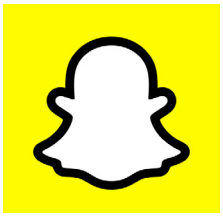
Originally designed for creative people, Pheed's founders even managed to attract several hundred American celebrities in the first months of their work, most of whom soon left. Then the service began to gain popularity among the idols of American teenagers (one of the first fans was told about the service by local internet celebrity Akeisha Brinley) and as a result in 2013 was provided the main influx of users to the platform thanks to teenage audiences.

CocoaTalk

Mobile messenger from Korean developer Kakao Inc. The application, like WeChat, combines several features of popular social networks and continues to rapidly gain popularity among teenagers in Southeast Asia. The messaging service works on iOS, Android, Bada OS, BlackBerry and Windows Phone platforms.

Kick

Messenger for smartphones, which became popular due to its simple interface, lack of connection to a mobile number and high speed. Users of the application can send messages, videos, photos, emoticons and other information. In November 2013, Kik was used by 90 million subscribers.



Snapchat

IPhone and Android app, photo sharing service, rapidly gaining popularity among teenagers in America and Europe. The peculiarity of the service is that the sent photos and videos disappear after a maximum of 10 seconds after viewing. At the same time, users do not have the ability to share pre-taken photos, and text communication can only complement visual images.

Launched as a student project in April 2011, Snapchat processed 25 new photos per second ten months after launch, and in November 2013 its users already shared 400 million photos per day, 50 million more than the number of photos uploaded on Facebook and Facebook. seven times the numbers on Instagram.

Recently, there has been widespread use of slang by all sections of the population in the messenger. The vocabulary and phraseology of the messenger jargon reflect the following characteristics: the absence of a specific ban, censorship and norms of use. It should be remembered that the main function of slang is the need to quickly and clearly express emotions on social networks, exchange ideas, raise and solve problems. In every youth subculture, jargon is one way of expressing oneself.

Next-generation services include Google services

To begin with, let's separate the 2 concepts that underlie our topic: the Internet and the WEB.

The Internet is a collection of computers and various devices that provide information exchange between computers on a network without the use of intermediate storage media. They are located in different countries on different continents. They are separated by thousands of kilometers, seas and oceans. But they are interconnected through special communication channels (leased lines, cable and wireless networks, satellite communications) and form the global computer network INTERNET.

"Web" is the information content (content) of the Internet.

2. History of the network. If you look at the history of the development of the network, you can distinguish three epochs. The first, based on current trends, can be called Web 0.1 - this is the stage of the birth of such a phenomenon as the network, when the Internet is used exclusively by research institutes, high-tech corporations and other companies for which this network was created. The standard was SGML, the progenitor of today's HTML, which cannot describe the design, but is only intended to indicate the logical markup of the document. That is, the web was a kind of repository of documents (text only, because SGML documents could not contain photos) linked together by hyperlinks.

We have all seen the next era of the development of the network and it is with it that we associ-

ate the words “internet” and “web”. The Internet has become a place where there is everything: photos, music, videos, lyrics and all kinds of other information. Yes, and the audience of the Internet has expanded significantly - almost all PC owners began to gain access to the network. Web design has emerged and given the internet its look. The main difference between the first network and the second was its poor development in consumer self-expression. As a rule, users could communicate in forums, chat rooms and other public places, but only a few could create their own websites to express themselves as fully as possible. In order to create their “home page”, people had to understand the structure of HTML, to buy the services of hosting providers, whose prices were aimed at companies wishing to open a website. It was very expensive and unpleasant. Therefore, the era of Web 1.0 is the time of sites, not people. Websites were at the heart of Web 1.0.

At the heart of the second generation network are people and their ability to express themselves. Web 2.0 is not a new standard, it is not a new format. Web 2.0 is just a sign of new trends, a new stage in the evolution of the Internet. It cannot be said that the “second” network came abruptly and replaced outdated sites. On the contrary, it is the result of continuous progress, their logical improvement. Web 2.0 is an era in which the Internet is not based on sites, but on people, their knowledge, their interaction.

The term “web 2.0” was coined by Tim O'Reilly. On September 30, 2005, he wrote an article discussing the new concept of the network, which came to replace the collapsed dotcom (.som). In fact, this article started talking about the “second” network.

So what exactly is web 2.0 and how does it differ from web 1.0?

New technologies and opportunities

This does not mean that the new generation network has set some new standards. All the “new technologies” used in Web 2.0 may have existed before, but it just never occurred to anyone to use them.

AJAX technology. Without going into technical details, we can say that AJAX is a technology that allows you to change the content of a web page without reloading it, that is, as in offline applications. To take full advantage of AJAX, simply use at least one of Google's services:

As you enter a query in the search bar, Google will offer you options for frequently used queries similar to yours, with information on the number of results found. This scheme is familiar to you from the behavior of browsers - when we type an address in the address bar of the browser, we see a drop-down list of suggested options. Before the advent of AJAX technology, such a scheme on web pages was practically impossible, but now it is used everywhere.

This technology makes web applications different from other web applications, where interactive maps are an excellent example; on Google it's MAPS. Try dragging the map in different directions (just hold it with the mouse and drag it in the right direction). What does a website user expect in such cases? That's right, reload the page. But reloading does not happen, only the part of the page that needs to be changed - the map.

These services have another clear advantage: namely their portability. You do not have access to your mail or organizer, which is stored on your computer not at hand. But you can always access them if they are stored online.

Peer-to-peer networks are also part of Web 2.0. The relics of the past are the file servers from which we have always downloaded software, music, videos and other files. They are being replaced by peer-to-peer networks, networks that do not have a single repository, but have millions of users who have the files we need. What is the difference?

If we download a file from a server, we are forced to share the server's bandwidth with other people who download files from that server. That is, the download speed strongly depends on the frequency band of the server channels and the number of active users. By downloading files from the torrent network, we receive this file simultaneously from all users who have it on their computer. And the more such users, the higher the download speed. Peer-to-peer networks are arranged in such a way that the more the user gives, the more he receives. While you're downloading a new file from different users, other users are downloading segments of that file that you've already downloaded. That is, the more popular the file, the faster you will download it.

File storage servers must be very powerful and therefore expensive to store large amounts of information and to provide acceptable download speeds and connection stability to a large number of users. While torrent trackers are only coordinators of download processes and simply distribute data streams among users involved in the download, they do not store large amounts of information and do not require wide channels, which means they are much cheaper.

New trends

But the technical component of the "second" network is only the basis, the basis of the main idea. Web 2.0 is a network for people, which means that its main idea is to simplify the methods of self-expression. Resource-intensive and difficult-to-create homepages have been replaced by blogs that can be created in minutes. Wiki has appeared instead of "engines" on major portals. And in all this one idea can be traced - there are no more unified centers in the network, the network is now a community of independent opinions. Here is a website. This site is usually run by one person or a group of developers. That is, the information is changed on the site, pages are added, unnecessary sections are deleted, etc. And all this is done by the person responsible for this site. Now let's imagine a book site (say some documentation or an encyclopedia). A book that a person cannot write due to insufficient knowledge. And he wants everyone to write this book. But not everyone can write it on one site, because, firstly, it is not safe to provide access to the controls of the site at all, and secondly, not everyone will be able to understand the administrative panel. This is why the Wiki environment was invented. Wiki is at the same time the "engine" of the site and a primitive markup language, understandable to all, and the whole philosophy of web democracy. The wiki environment was invented in 1995.

Perhaps the most striking example of the idea of Wiki is Wikipedia, an open encyclopedia compiled by all Internet users in all languages of the world. Anyone can become a co-author of this encyclopedia. You can create a new section, a new article, a note, correct an error in an existing

one, add something, comment, etc. Overall, you are the full creator of this vast knowledge base. Wikipedia itself explains what a Wiki is as complete and understandable as possible.

blogs. The most notable "discovery" of Web 2.0, of course, were blogs (a derivative of weblog - weblog, weblog, event diary). The blog is a WEB site, the main content of which is regularly added entries containing text, images, video or multimedia. The blog is characterized by short entries with time significance, sorted in reverse chronological order. Blogs are usually public and include third-party readers who can engage in a public debate with the author. The essence of Web 2.0 on the face. At the turn of the century, every hundredth user of Runet had a "home page". Today, there are over 35 million blogs online. Why are these blogs so special? This is democracy and ease of creation / maintenance. You do not need any special knowledge to have your diary online. But the desire to express themselves among the people, as it was in the dotcom era, remained. Therefore, the invention of blogs was a turning point in the evolution of the web. And not so much blogs as independent units made a revolution, but a blogosphere was formed around them. If we imagine each blog as an individual, then our relationship will be the blogosphere. The blogosphere is formed by many blogs and communities. That is, the basic idea of all this is not that everyone can write, but that at the same time everyone will also be read. And this is achieved quite easily.

Your class has its own blog dedicated to current issues. I invite bloggers (the people who run this blog) to answer a few questions:

1. What environment was chosen to create the blog?

2. Where, in what environment can you still create a blog?

3. How long did it take to create the class blog?

4. How were readers, co-authors, participants invited?

5. How often do you visit your blog?

6. Do you visit celebrity blogs?

7. Have you created a blog for your class, but have you ever wanted to create your own blog?

Designer fashion. Web 2.0 is not only for new technologies, new ideas and new trends, but also for new trends in web design. If you are looking at new generation sites, pay attention to some similarities in design. As a rule, they are all made in a minimalist and concise style, the logos are extremely readable and understandable. Although this trend standardizes creativity by limiting it somewhat, it still sets the tone by automatically cutting off mediocrely drawn sites.

An overview of next-generation services on the example of Google's services.

We will look at the capabilities of next-generation services to solve our educational or everyday tasks based on the example of Google's services.

Google Accounts is a system of shared accounts for all Google services. In this way, the user of

one of Google's services receives in addition many others. However, there is no reason to blame the company for imposing services, as the use of each service must be confirmed.

Gmail
A free email service with plenty of storage space (over 7.2 GB), POP3 access and a user-friendly web interface.

Docs (Documents)
A web-based application for working with documents, tables, presentations, allowing joint editing and use of the document, discussion, publication.

Notepad http://www.google.com/notebook/#b=BDUoh3goQ58fXt8gk

With Google Notebook, you can view, save, and organize information from the web and access it from any computer. Are you planning a trip? Do you collect information about a product? Just add the necessary notes to your notebook. Google Notebook is a web application that allows you to create, store and edit notes on the server. What I like is that the text in the notes can contain URLs (Internet addresses of resources on this subject), and can also be marked in italics, bold, different fonts and colors. Another plus: the note can be accessed by other users, so they are given the secret URL of the note. All notes can be grouped in notebooks and printed.

Reader
News subscription, news classification, general blog posting. I think that after this you will definitely decide on the news section that your classmates are interested in and publish it on the blog.

Google Sites http://sites.google.com/
Google sites, simplified free hosting based on a structured wiki. Allows a simple wiki way to create a website, providing information for people who need quick information. Site users can work together to add information from other Google applications, such as Google Docs, Google Calendar, YouTube, Picasa, and other sources.

Calendar http://www.google.com/calendar/render?gsessionid=cn7cZ-lNc1gEXqXStnay4A

Create, add and describe events, publish calendars in blogs.

If we are invited to a seminar in another city or village, we may use interactive maps to determine the location of the site and the route of Maps (maps): maps.google.ru is a geographic information service.

Translate
a system for statistical machine translation of words, texts, phrases, web pages between any pair of languages. The quality of the translation is constantly improving with the completion of the text base.

Calculator
A calculation service built into the search bar at http://google.com.

For example, if you are looking for a string 900 + 600 * 2- (3 + 1), then the answer 2096 will be returned, as well as websites where such a string can be found. The service knows many mathematical functions (for example, square root of 49: sqr (49)), knows how to observe the priority of operations (calculations in parentheses and multiplication in the above example were done before addition and subtraction).

Currency converter Examples: 600 USD in RUR - how much is $ 600 in rubles? 1400 RUR in euros - how much is 1400 rubles. In euros?

Picasa Web http://picasaweb.google.com/
Lets you store, classify, share digital photos and discuss resources, create photo albums, personal photo galleries, blog photos, create slideshows.

YouTube
Search for videos or create your own http://www.youtube.com.

Google Earth
A model of the planet Earth, created using satellite images.

STEAM method as an innovative technology in the educational process

In the modern world, many innovations have emerged in the last ten years that are of great importance in the creative industry related to creative or intellectual work. They are undergoing changes in information and communication technologies, the creative industries, which in many countries around the world act as a lever for the development of the state economy. An increasing number of young people want to occupy the labor niche related to this field of activity. Trends in natural data have influenced the development of the education system, there is a need for global change. If earlier the main development was in mathematics and engineering, now it is necessary to include artistic and creative disciplines in the educational program.

In the United States and Europe, STEAM education is at the peak of its popularity. Many advanced researchers believe that he is the real future of the younger generation. The abbreviation STEAM means: science - science, technology - technology, engineering - engineering, arts and mathematics - art and mathematics. Currently, these subject areas are among the most sought after. STEAM technology is an innovative teaching method that combines technical and natural sciences, engineering, mathematics and art.

STEAM technologies were first discussed in the United States. Some schools conducted a survey and later a survey on the career development of their graduates. So they decided to group the natural, mathematical, technological sciences and engineering. Thus the system of STEM education is formed. Later, another field was added - art (art) and new STEAM technologies appeared. Teachers in American schools believed that knowledge in these disciplines would help students become professionals. As a result, students were eager to receive new information, as they could put it into practice immediately.

In many countries, STEAM technologies are in high demand in the educational environment. This is due to the fact that there will soon be an acute shortage of specialists in the world community, both in the field of engineering and in high-tech industries. There is currently an integration between the natural sciences, technology and engineering, so that at the crossroads of these sciences will appear new specialties that will be at the peak of popularity, such as specialists in bio- and nanotechnology, great data engineers, programmers . These professions will allow you to acquire the comprehensive training and knowledge that modern specialists need.

Naturally, the education system responds to this demand of society. There are currently a huge variety of different areas of further education for the younger generation, such as programming, robotics and modeling classes. However, researchers in this field believe that some knowledge in the field of technology and science is small, interdisciplinary interaction with other educational disciplines is needed. STEAM technologies, when used, allow the integration of different subject areas. Students find themselves in a mixed environment in which they are immersed in the world of science, mastering scientific methods in their practical application.

The main goal of classical school education is the teaching of knowledge and its application

in the thought and creative process. STEAM education includes the approach of combining acquired knowledge with real skills. In this way, the students' ideas will not only remain in their heads, they will be able to implement them in life. And the most valuable is the proven knowledge.

In today's world, students must have a number of competencies that are rightly called 21st century skills. The essence of this concept lies in the fact that if in the industrial age writing, reading and arithmetic are considered key concepts that reflect the level of literacy of society, then in today's world one must be able to think critically, to be able to interact and communicate. and have a creative approach to business. This is how the competencies of the 21st century appeared: creativity, cooperation, communication, critical thinking. However, these skills cannot be acquired in the laboratory or with the help of mathematical algorithms. Therefore, modern professionals must increasingly immerse themselves in mastering STEAM technologies.

Leonardo da Vinci believes that interdisciplinary integration of art and science is needed. This position was also held by European philosophers and psychoanalysts, such as Carl Jung. From the point of view of human physiology it is possible to explain the connection between the scientific-technical and artistic direction in general in the educational system. Because the left hemisphere of the human brain is responsible for the development of logic, which allows memorizing the necessary information and drawing logical conclusions. The right hemisphere of the human brain solves thinking problems through direct perception. This is how the formation of creative, instructive-intuitive thinking takes place.

In the educational process, the use of STEAM technology allows you to use both hemispheres of the human brain at the same time. Robert Ruut-Bernstein, a professor of physiology at New York State University, conducted a biographical study of 150 famous scientists from Louis Pasteur to Albert Einstein in the early 1990s. He studies the work of their left and right hemispheres of the brain. The study showed that each of them, in addition to scientific activity, was also engaged in creativity, each of them was an artist, musician or poet-writer. For example, Albert Einstein loved to play the violin, Galileo Galilei was a famous literary critic of his time, Samuel Morse was a portrait painter. So, Robert Ruth Bernstein came to the conclusion that many scientists have achieved success with the help of creative thinking. Its stimulation is done with the help of practical training in disciplines related to the work of the right hemisphere of the brain.

In 2009, a neurological study was conducted by Johns Hopkins University. As a result, the data obtained show that artistic activity improves the cognitive skills and abilities of students. At the same time, memory and attention are developed, which has a positive effect on the educational process. The level of not only academic but also life skills is growing.

STEAM technologies are actively used in the educational process in a number of Asian countries. Of course, this is due to the opinion of the students' parents. So, in China, a survey was conducted among citizens with minor children. The results showed that Chinese parents find the arts very suitable for the development of an innovative component in their children's education, unlike Americans. Thus, the importance of mathematics and computer science in Chinese families is recognized by only 9%, in the United States by 52% of respondents. The role of creative

approaches to solving innovative problems is important for 45% of Chinese, in the US for 18%. For 23% of parents surveyed in China, it is important that their child is trained in entrepreneurial and business skills, in the US this figure is only 16%. Regarding the acquisition of knowledge about world cultures, 18% of Chinese respondents express a positive opinion, compared to 4% of Americans. Thus, the development of the Chinese education system is already being used quite actively by STEAM technologies, in contrast to American schools.

These technologies have reached a high level of development in Singapore. Twenty years ago, the Singapore Transformation Initiative program began to works. Its main goal was to turn this city-state into a world center for creativity, innovation and design. Singapore's system of governance aims to transform the education system so that anyone who promises to develop their creative qualities. In this way, young talented professionals with innovative thinking have the opportunity to reform economic policy with the help of a creative component.

The inclusion of children in STEAM education should start at an early age. Thanks to the STEM approach, children will be able to delve into the logic of ongoing phenomena, to understand their relationship, to study the world systematically and thus develop curiosity, engineering style of thinking, ability to get out of critical situations, develop work skills in a team and master the basics of management and self-presentation, which in turn provide a radically new level of development of the child.

Experience with the use of STEAM technologies in different countries around the world shows that practical lessons are as important as theoretical ones. Classical school education in the classroom does not have time to catch up with the rapidly changing world. Therefore, a distinctive feature of these technologies is that students not only with the help of their mental abilities, but also with their hands immerse themselves in the world of learning many disciplines. They acquire this knowledge on their own, while immediately using it. In later life, when faced with different life problems, students will realize that they will be able to solve complex problems, relying on knowledge acquired from different subject areas, and working together.

At the methodological level, in addition to gaining theoretical skills and abilities, solving technological problems STEAM - technologies include:

- acquisition of skills for group work by students;
- learn to constructively criticize and defend your opinion;
- master presentation skills;
- learn to generate ideas in conditions of uncertainty;
- applies the principles of design and marketing to create and promote a product;
- realize the creative potential of the application of technologies in different fields of activity.

Thus, compared to the traditional school education system STEAM, the approach is focused on conducting experiments, constructing models, self-creation of creative works, turning ideas into reality. As a result, students receive a product of their activities, which is very important to them. They see the result of their work. This educational approach makes it easier for students to combine theory and practice and thus continue their studies at the university, as the future belongs to technology.

Various online tools and ways to use them in online lessons

In the digital world we live in now, it is essential that teachers equip themselves with innovative educational technology tools. Technology is a trustworthy assistant that helps to make the teaching and learning processes more enjoyable and effective. We've compiled a list of online tools that will help you to take your classroom to the next level and transform passive learning into active exploration. In the list, you will find dynamic and interactive educational tools that make learning engaging for the students and also explanations on how to use them.

Kahoot! is a game-based learning platform used by millions of people around the world every day to discover, create, play and share learning games. It makes learning fun and engaging for students and teachers, businesses, families and friends.

At school, Kahoot! can be used for any subject, any age, and with any device - students don't even need to register for an account. You can use Kahoot! both when teaching in class, for distance learning and in a blended learning format. Millions of teachers use Kahoot! to...

- ▶ Introduce new topics
- ▶ Review content at class and home
- ▶ Engage students via distance learning
- ▶ Run formative assessment
- ▶ Teach interactive lessons
- ▶ Break the ice and reward the class
- ▶ Collect student opinions
- ▶ Foster creativity and teamwork
- ▶ Engage colleagues with professional development

How to create a kahoot account

1. Go to kahoot.com and click Sign up.

2. Choose Teacher as your account type.

3. Specify whether you work in a school, a higher education institution, or in school administration.

4. If you'd like to sign up with an email, type your email address and a secure password you'd like to use. Alternatively, you can sign up with your existing Google, Microsoft or Apple accounts and use those credentials to log in to Kahoot! later.

5. Choose a plan: you can use Kahoot! for free, or upgrade to one of our premium plans to unlock additional features. You can decide to upgrade at any time!

6. Fill out some additional information in the welcome screen so we can better customize the Kahoot! experience for you.

7. You're a registered Kahoot! user! Shortly, you'll receive a welcome email with some tips to get started.

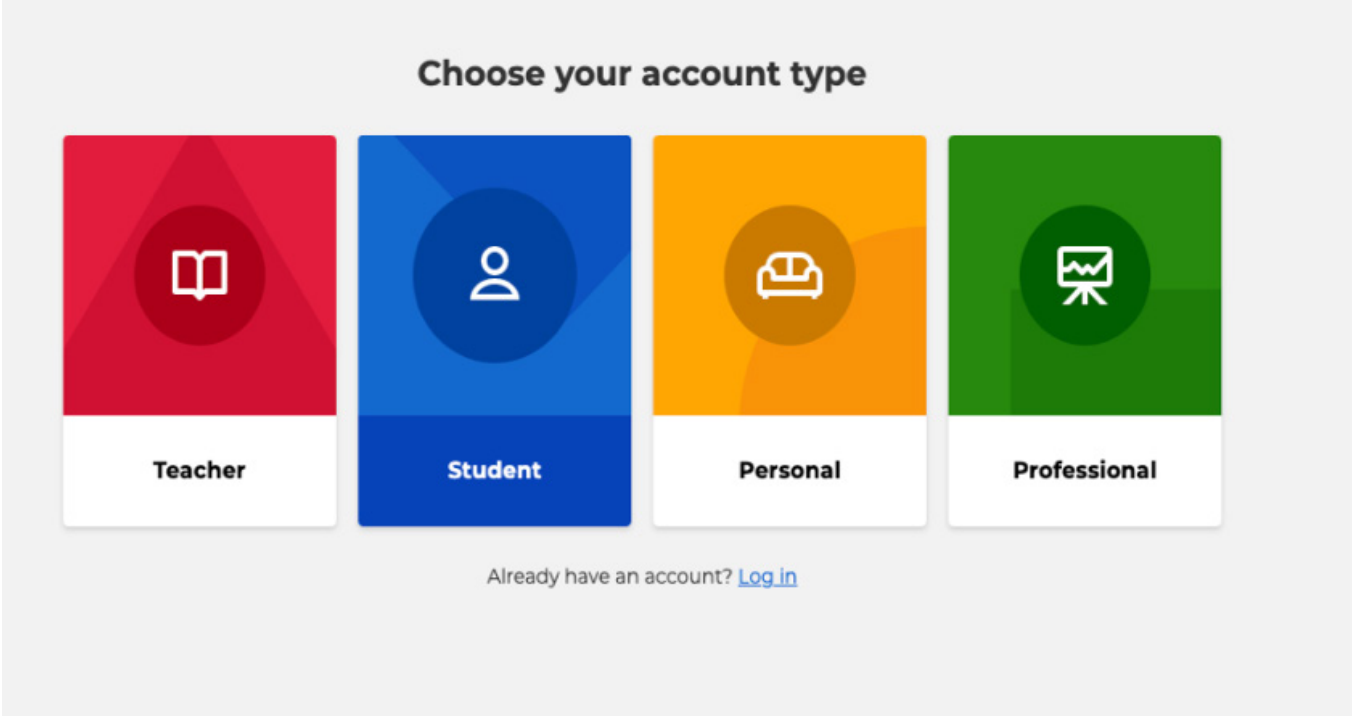


Figure 1. Choosing account type

How to create a kahoot in your browser

1. Log in to your Kahoot! account, hit **Create** in the top navigation bar, and choose **New kahoot**.

2. Start typing your first quiz question and add 2-4 answer alternatives. Your changes will be saved automatically as you go.

3. On the right-hand side, adjust the timer and choose how many points to award for a correct answer:

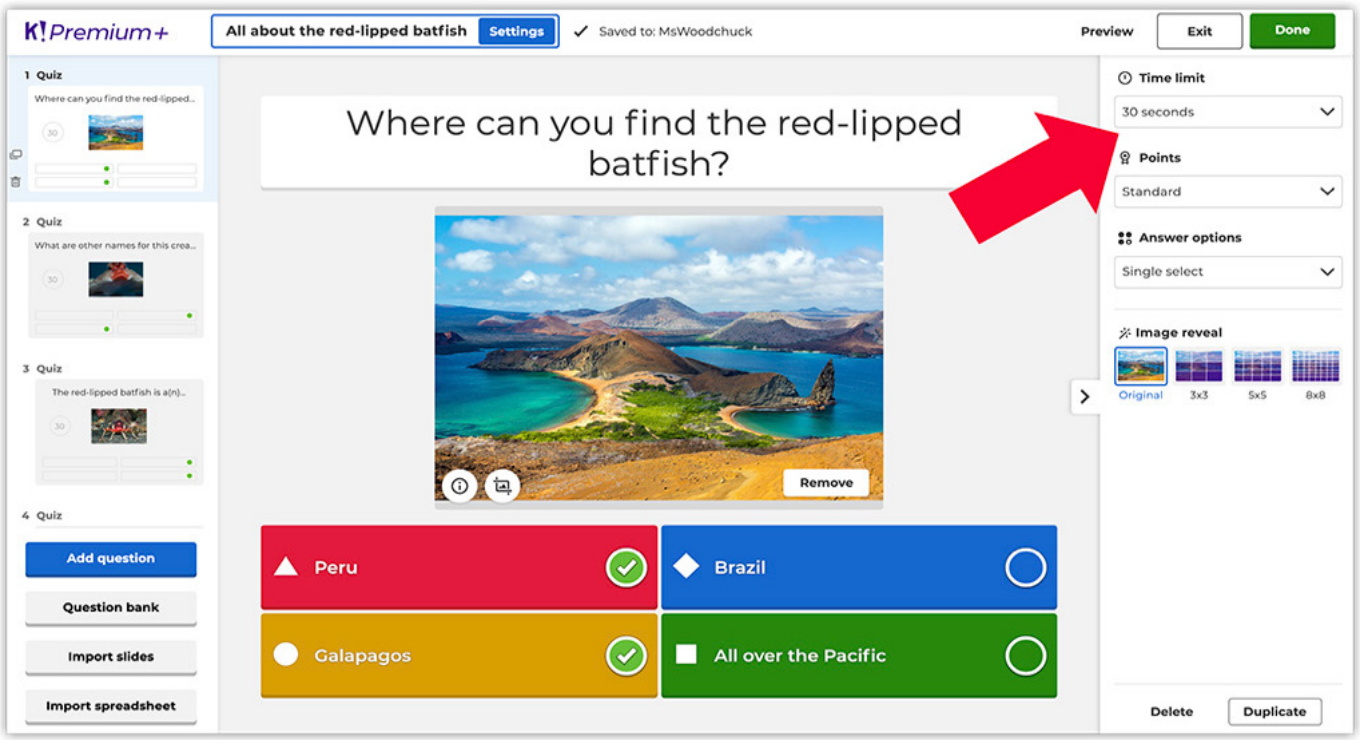


Figure 2. Creating a kahoot in your browser

4. Click **Add question** to create more questions. Depending on your subscription, you can add the following question types in addition to multiple-choice quiz:

- **True or false:** let students decide if a statement is true or false;
- **Type answer:** ask students to type a short correct answer;
- **Puzzle:** deepen learning by asking to place answers in the correct order;
- **Poll:** collect student opinions;
- **Slide:** give more context to a topic;
- **Word cloud**: collect short free-form responses;
- **Open-ended**: ask students to type a long answer – great way to collect in-depth feedback.

On the right-hand side, you can easily change the question type without having to retype it.

1. Make sure to add an image or video to make the question more engaging. You can upload an image from your computer, or choose one from our built-in image library.

2. Drag and drop questions to change their order, if needed.

3. Click **Enter kahoot title** to add a title and fine-tune other settings. For example, in the **Summary** screen you can define who can see your kahoot – only you, or all users.

4. Hit **Done** – congratulations, you've created your first kahoot, and it's now ready to play!

How to import presentations and create interactive lessons

With a Kahoot! Premium+ or Kahoot! EDU subscription, you can import existing slides (from PowerPoint, PDF or Keynote) and combine them with various question types to create an interactive lesson:

1. Click **Import slides** on the left hand side when creating your kahoot.

2. Follow the instructions to upload a file with a presentation. Our slide importer supports .ppt (PowerPoint), PDF (you can export Google Slides to pdf), and .key (Keynote) presentation formats.

3. Once uploaded, you can move your slides around or delete some of them, but you won't be able to edit their content.

4. Add interactive questions to engage students and increase participation.

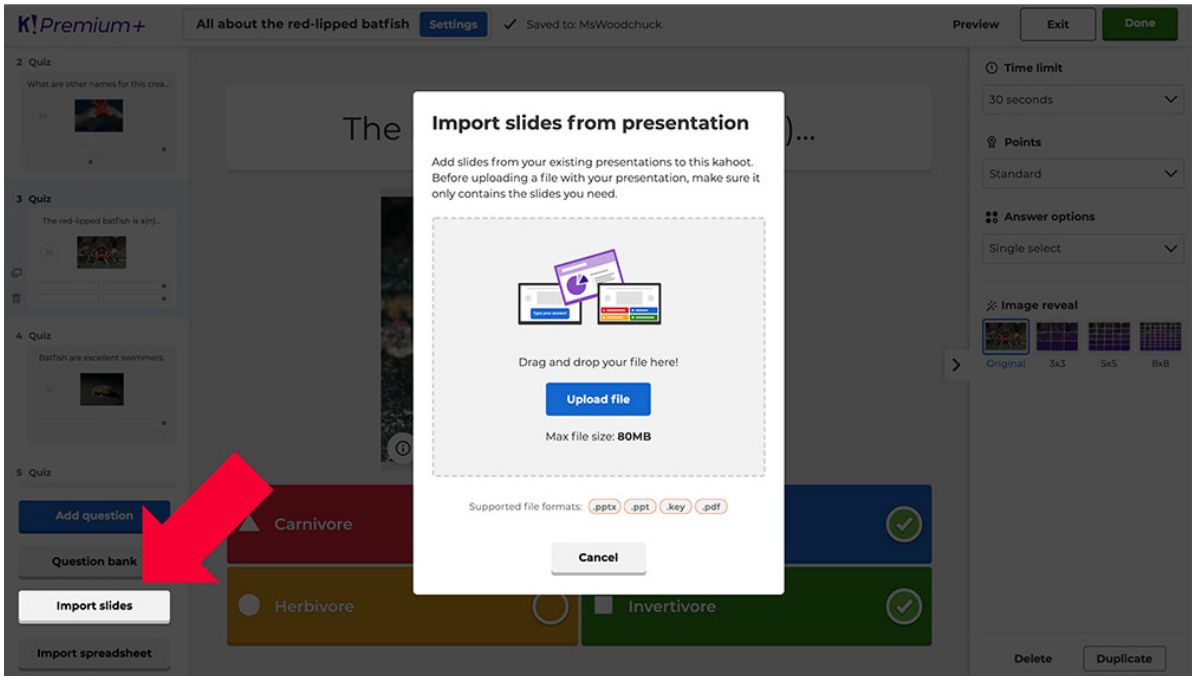


Figure 3. Importing presentations and making interactive lessons

Video tutorial on the following link:

https://www.youtube.com/watch?v=zBkVp8-CDeo

Jamboard

Jamboard is a collaborative online whiteboard. It gives students lots of creative work space.

If your group is large, Jamboard has you covered: it can accommodate up to 50 people working on a jam at once!

Getting to Jamboard is easy, and there are several ways you can do it:

1. Open Jamboard within your Google account

2. Go to google.jamboard.com

3 .Open a new Jamboard from within Google Meet

Once you are in the app, you will see previous Jams you have created and saved.

Follow these steps to get started:

• **Create** your own Jam.

  • Click on the **rainbow plus sign** in the bottom right corner of the page for a **"New Jam"**.

  • You can make up to **20 frames** using the **arrows at the top** of the screen.

  • Similar to Google Docs/Presentation, you can share your jam with others by clicking the blue **"Share"** button in the top right corner.

  • There are multiple **tools** you can use to design your jam.

    ■ Pen, marker, highlighter, or brush in black, blue, green, white, orange, or red.

    ■ Eraser.

  • There is also a "clear frame" option above the board.

    ■ Arrow to select and move the items around.

    ■ Sticky note with either no color, yellow, green, blue, pink, or orange.

  • Each sticky note can only include about 170-180 characters.

■ Add an image through an upload, URL, camera, Google image search, Google Drive, or Google Photos.

■ Experiment with shapes: circle, square, triangle, diamond, curved square, semi-circle, rectangle, and arrow.

■ Make your own text box.

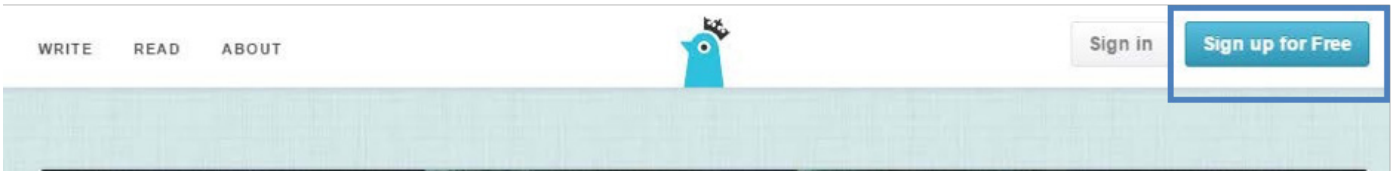
■ Use a laser pointer (which doesn't permanently change the board) to showcase specific parts of the board.

■ Select 'Set Background' to change the base of the jam, including graph paper, composition paper, or an image.

Video tutorial on the following link: https://www.youtube.com/watch?v=K1qS6avlnaE

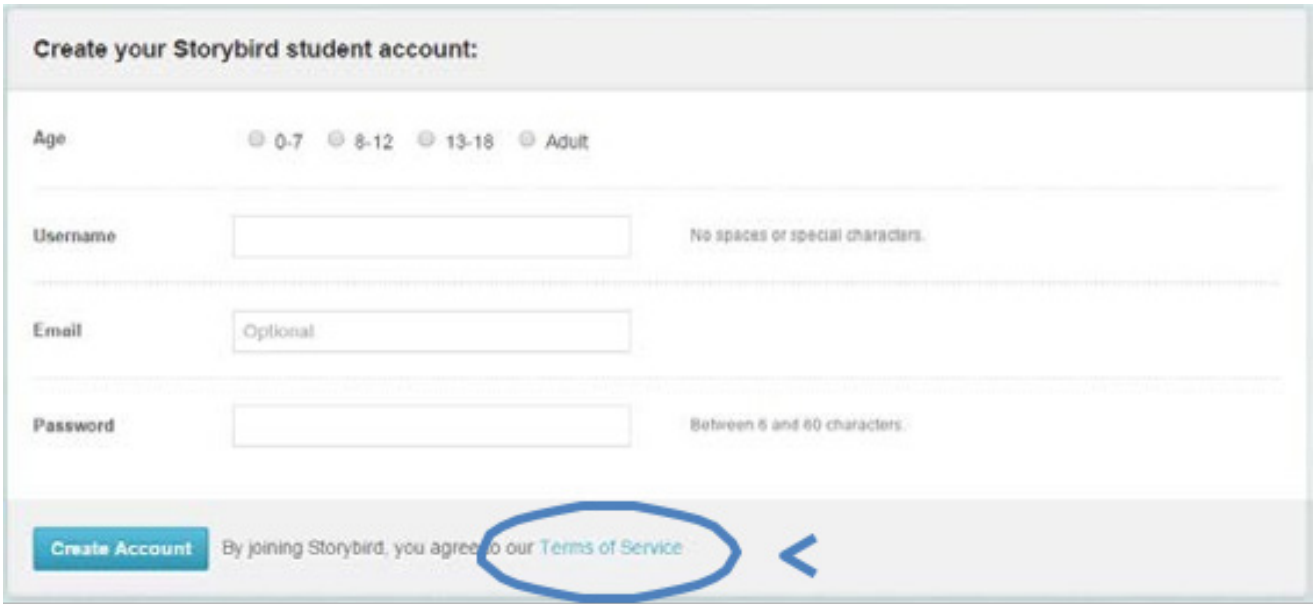
Storybird is a collaborative storytelling tool. Students use collections of art to be inspired to write stories. Once the art is chosen, students are able to build there story by dragging and dropping pictures and creating a story to match. It's great for teachers because they're able to easily create student accounts and assignments for students. It's also simple to collaborate with others whether it's another student in class or someone from another country! Storybird is an extremely engaging site that allows students to focus more on the content of their writing rather than drawing pictures!

1. Visit the Storybird website. Log in if you already have an account, or click the "Sign up for Free" link to begin. For best results, use the most current version of your web browser.



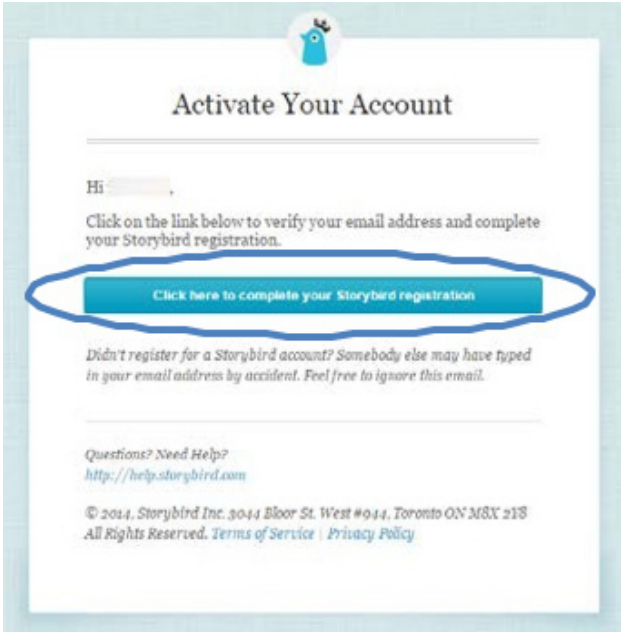
2. If registering, click the option that best matches your use of the site. You can always change this option later if necessary.

3. Enter your information to register for an account. Be sure to read the Terms of Service before clicking "Create Account."

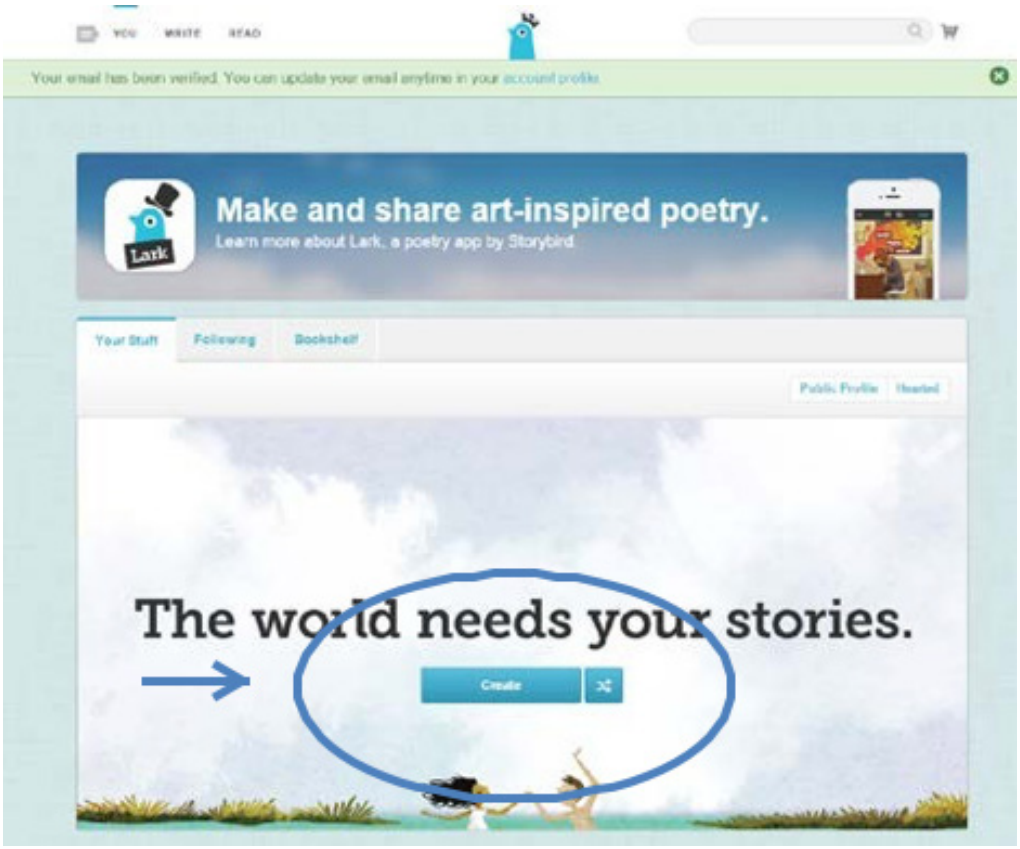


4. Once you have registered for an account, you will be prompted to upload an avatar picture. You may do so if you wish, or you may skip this step.

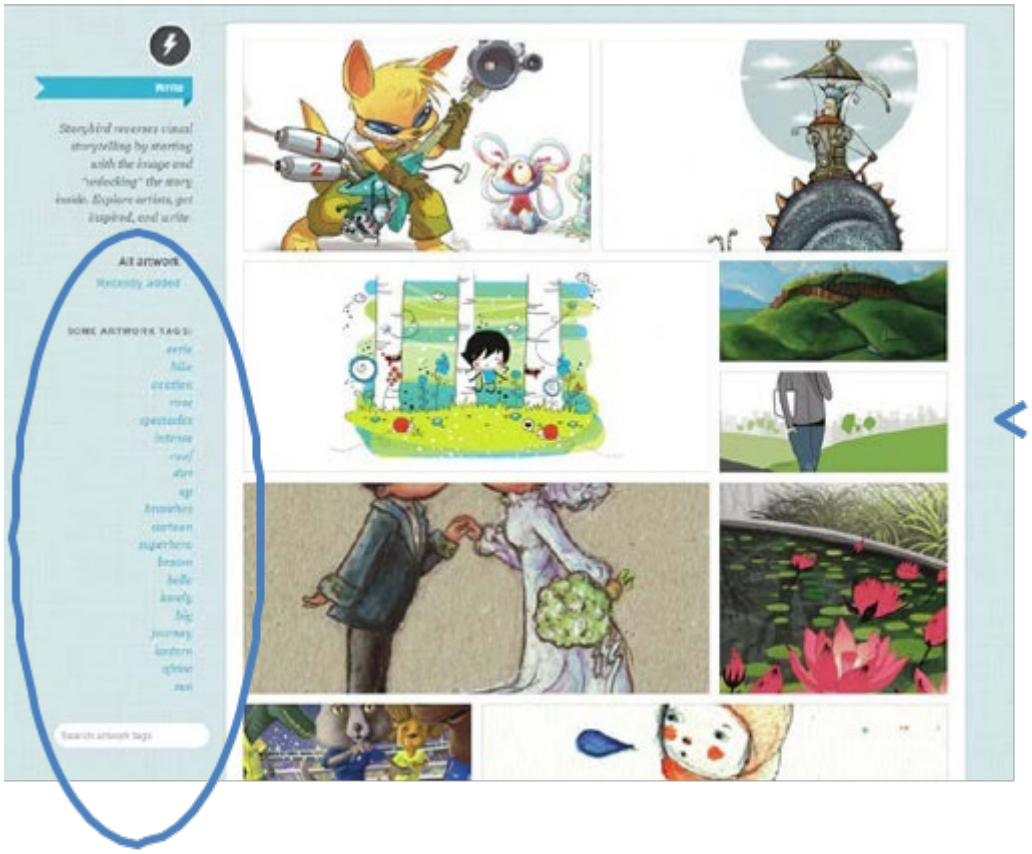
5. A confirmation email will be sent to the email address you provided. Go to your email and click on the link in the email to complete your registration.



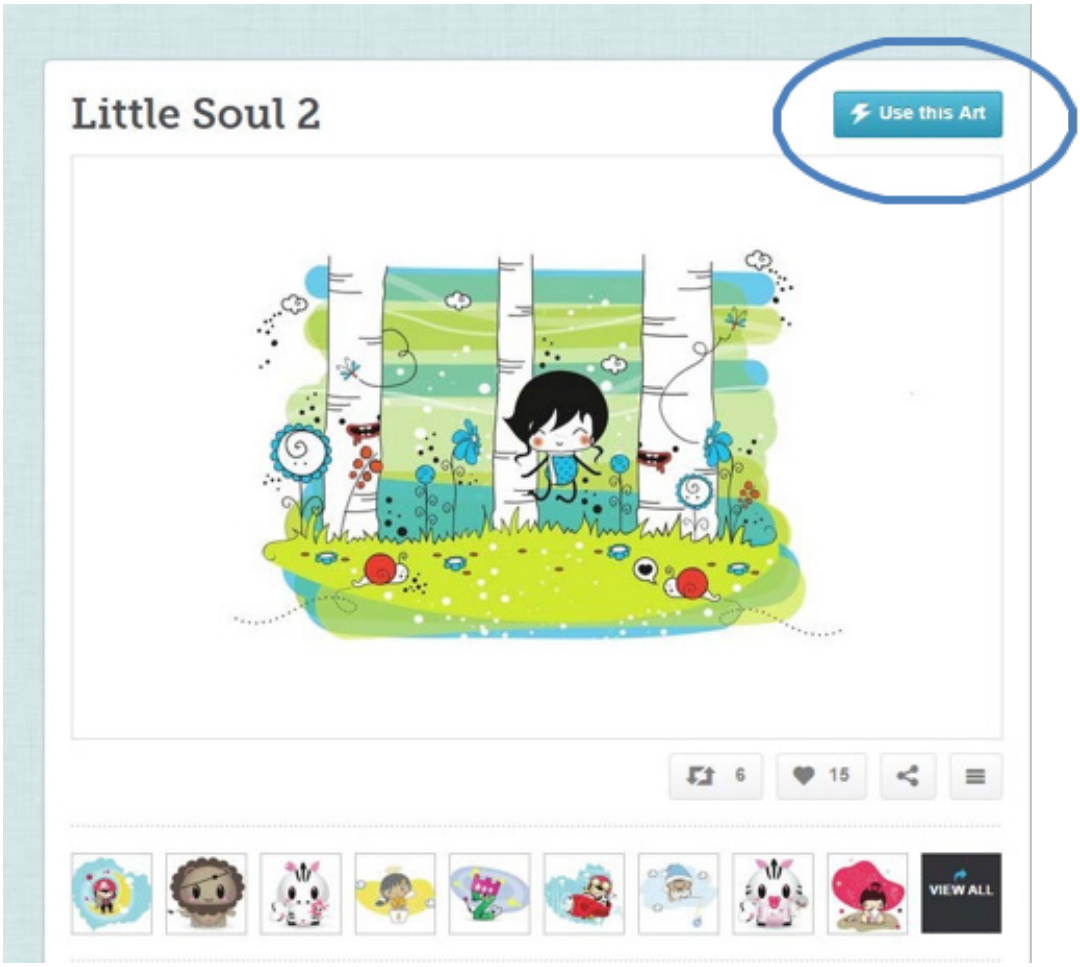
6. After confirming your registration, you are ready to begin creating your storybook. Click the "Create" button to get started.



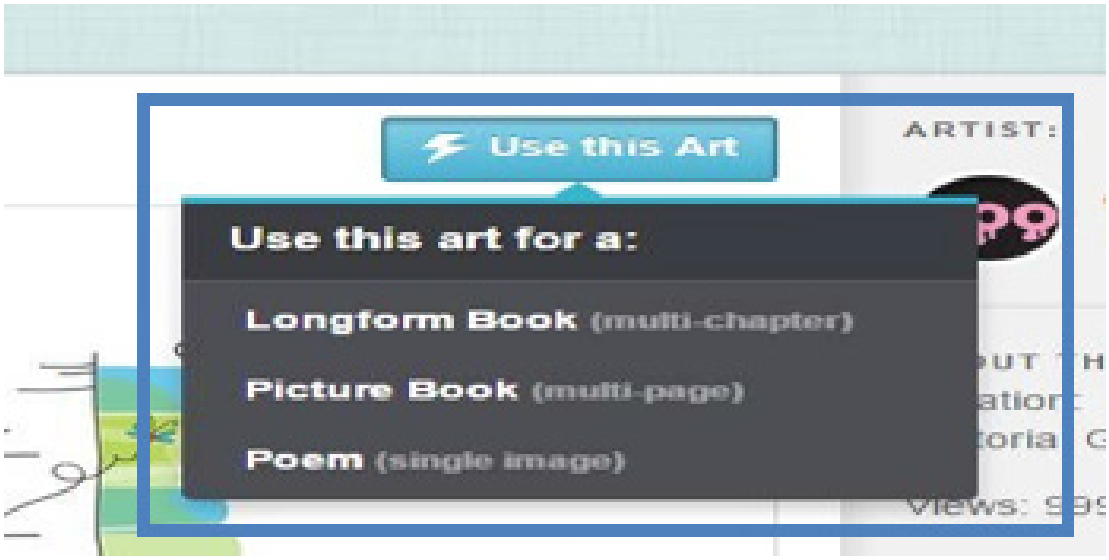
7. You will be taken to a screen with potential artwork for your storybook. You may choose from the pictures shown or search art by tags.



8. Once you have chosen your art work, you are ready to use it to create your storybook.

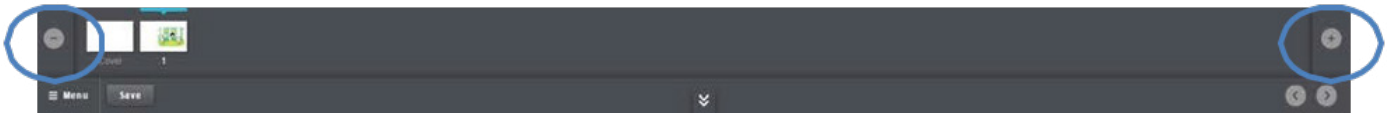


9. Once you click the "Use this Art" button, you will be prompted to select a final product for your project. Choose the option that best matches the assignment instructions.

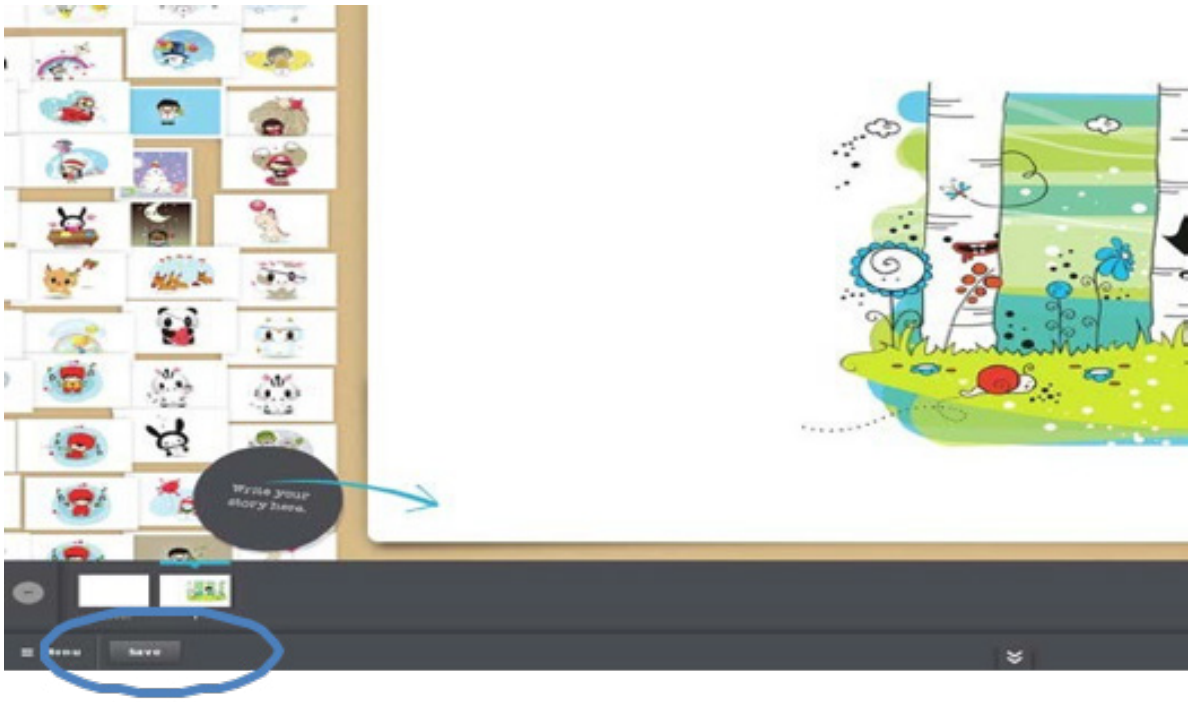


10. You will then be taken to the page in your project and shown the areas where you can drag your art or enter your text.

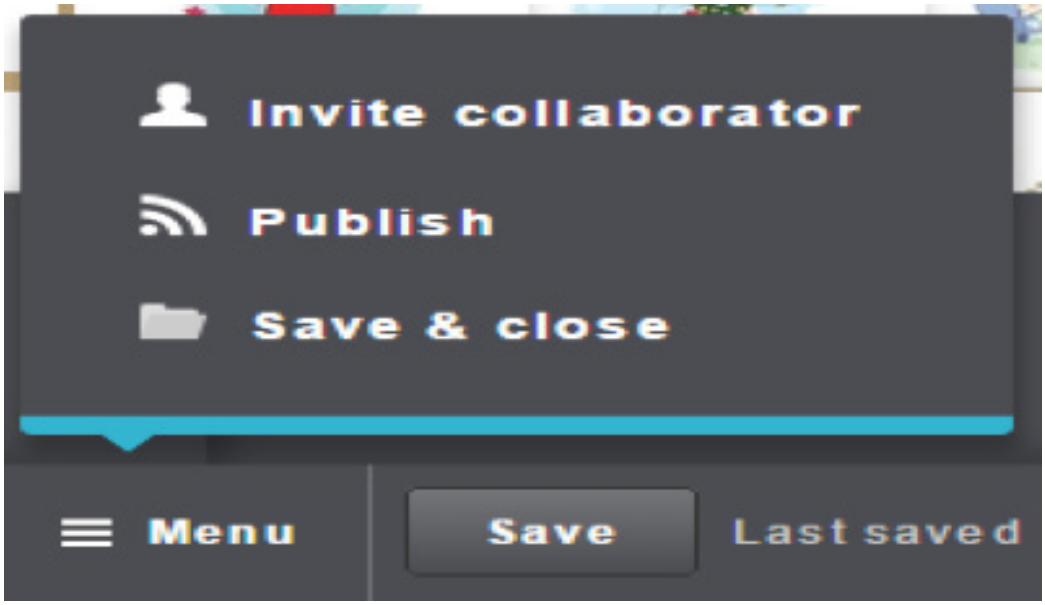
11. You can add pages by clicking the plus (+) button in the lower right hand corner or remove pages by clicking the minus (-) button in the lower left.



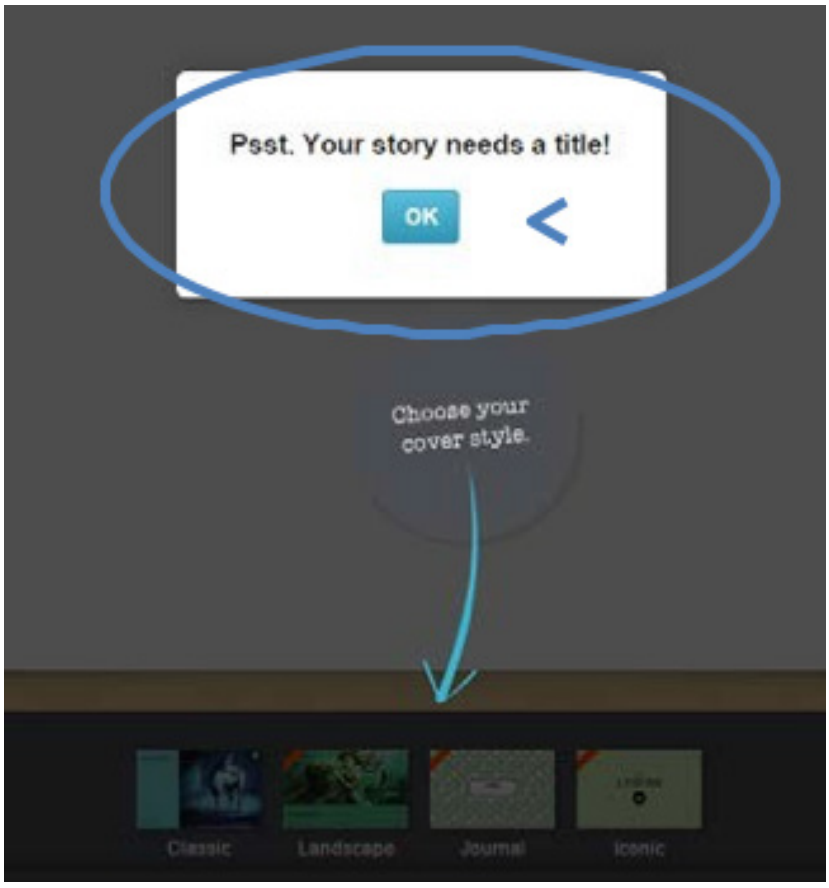
12. Continue building your project until it is complete, being certain to reference the assignment requirements. Be sure to save your changes as you go.



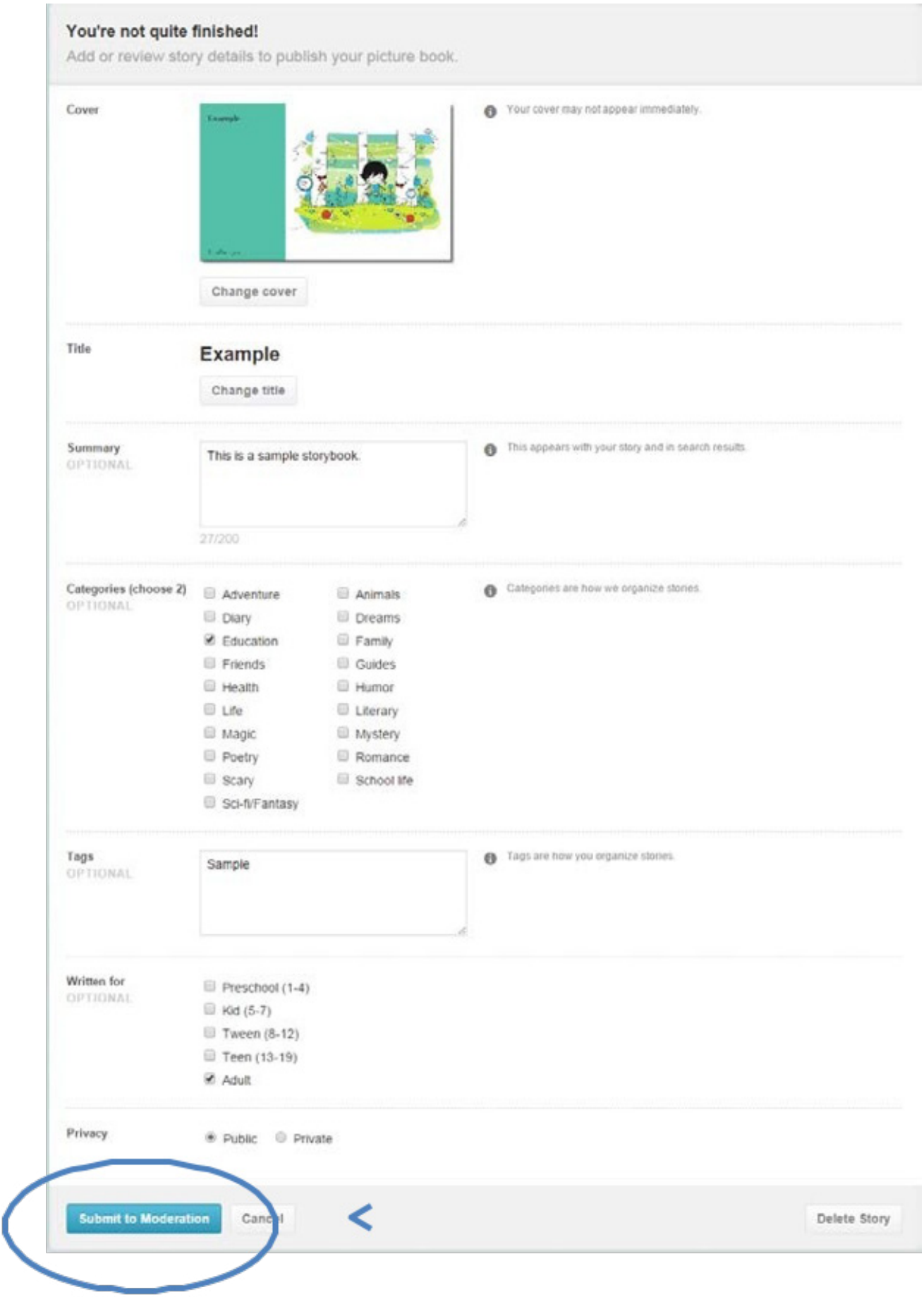
13. When you have completed your work for the day, choose the “Save & Close” option from the Menu. When you have completed all your work on your storybook and are ready to share it, choose the “Publish” option from the Menu. If your assignment requires you to work with another student, you can invite that person to collaborate on your project by clicking the “Invite collaborator” option from the menu.



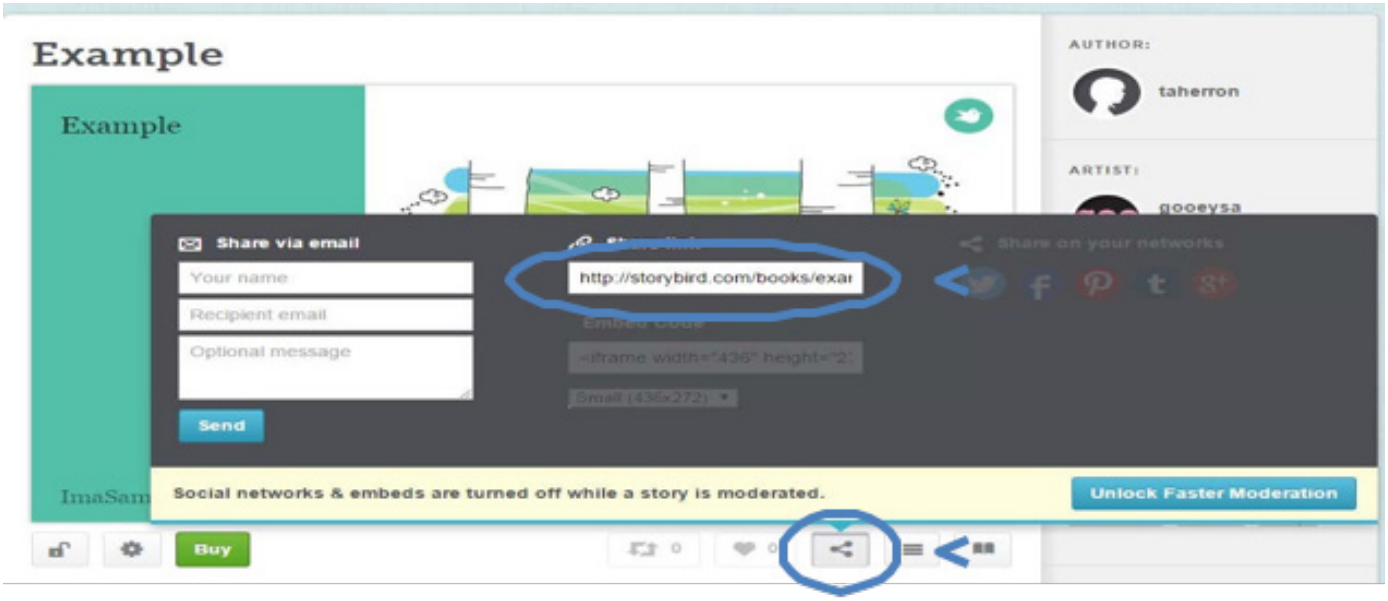
14. When you click the “Publish” option, you will be prompted to give your story a title and select cover art if you have not already done so. Click “OK” to do this and follow the steps to complete your project.



15. Before your work can be published, you will be prompted to add or review details. (Note that only complete stories can be published to the public library.) Once you have completed the sections on this page, you will be able to click the "Submit to Moderation" button.



16. Your book will be submitted to the system to be reviewed before being uploaded as publicly available. You will be able to click on the share option and copy the URL to share your finished project.



Video tutorial on the following link: https://www.youtube.com/watch?v=5pLxxyXvSKw

Quizlet is a cleanly-designed online app that allows users to create flashcards and choose different methods for studying their flashcard sets.

How to Use Quizlet

1. Go to https://quizlet.com/

    1. Find the button on the top, right-hand side of the screen that reads “Sign Up” and click it. Sign up through Facebook, Google+, or manually enter the required information and click the “Sign Up” button when you’re done.

    2. You will now be taken to a page with a large green button that reads “Start using Free Quizlet,” click it.

    3. To create a new set of flashcards, click the “Create” icon on the menu bar at the top of the screen.

    4. Enter the information about your study set, like a title, description or subject, then start working on the individual cards.

    5. Choose a language for each side, then type questions or prompts on the first side, and answers in the second. Note that you can import data or add images as well.

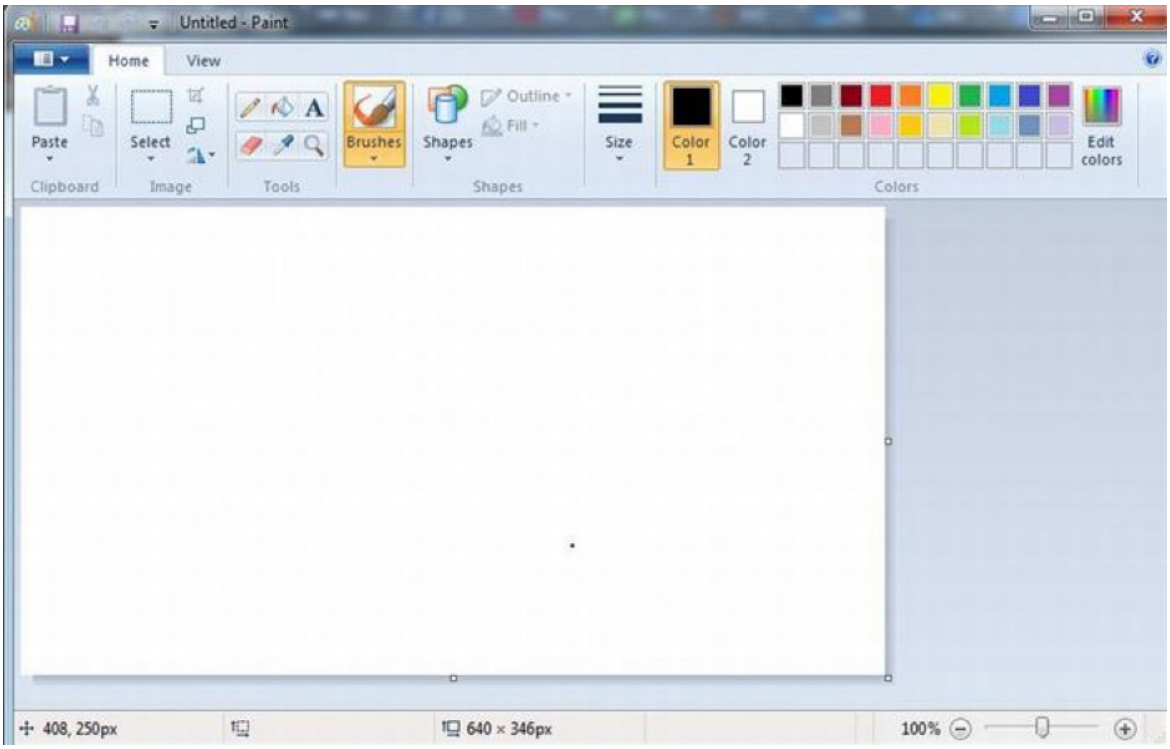
    6. When you’re done with your set, click the gray “Create Set” button on the bottom right of the screen.

    7. Choose your preferred method to utilize your flashcards to study: “Cards,” “Learn,” “Speller,” “Test,” “Scatter,” or “Race.” Each method provides you with a new strategy for memorizing the material!

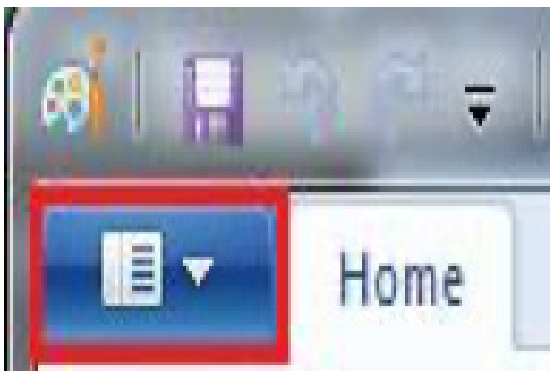
Video tutorial on the following link: https://www.youtube.com/watch?v=Jo6ITr9yt4Y

Microsoft Paint or **'MS Paint'** is a basic graphics/painting. MS Paint can be used to draw, colour and edit pictures, including imported pictures from a digital camera for example. MS Paint is found by using the search button/icon on the bottom taskbar.

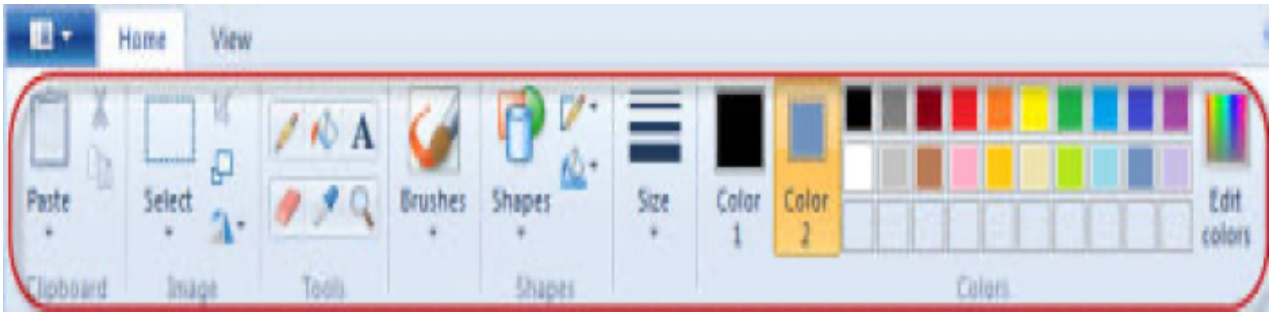
This is the main screen on MS Paint.



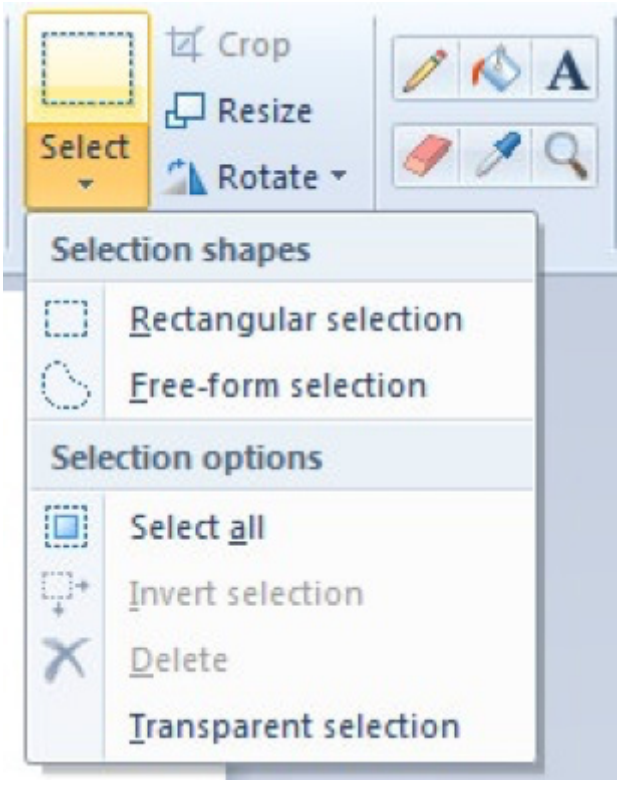
To open a image you saved and you want to edit, click on the menu button (highlighted in red). You can now choose to start a new project, open a saved picture, save an image as a different file type, print an image you have open, or email that image to a contact.



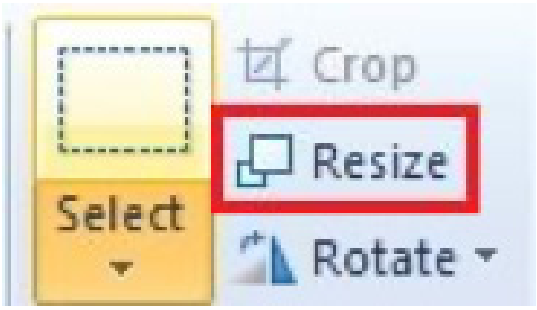
This is the main options menu.



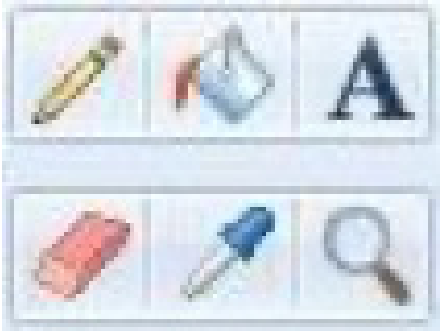
You can use the "Select" option to select a section of the photo. The selection can be rectangular or "free form" – meaning you can freely draw the selection you wish to.



When you select, you can invert the selection, selecting everything but the area you've marked. Another option is to use Transparent selection, which only selects the painted area, without the background.



Use the crop option to crop the image to the selected area. With the resize option you can change the size of the selected area (or the whole picture if nothing was selected) by percentage of the original size, or by selecting a specific size in pixels. The Rotate option lets you rotate or flip the image as you want.



The side buttons to the right of the selection menu are the basic tools, top-down from left to right:

-Pencil – lets you draw

-Bucket – Replace a color in an area with another color.

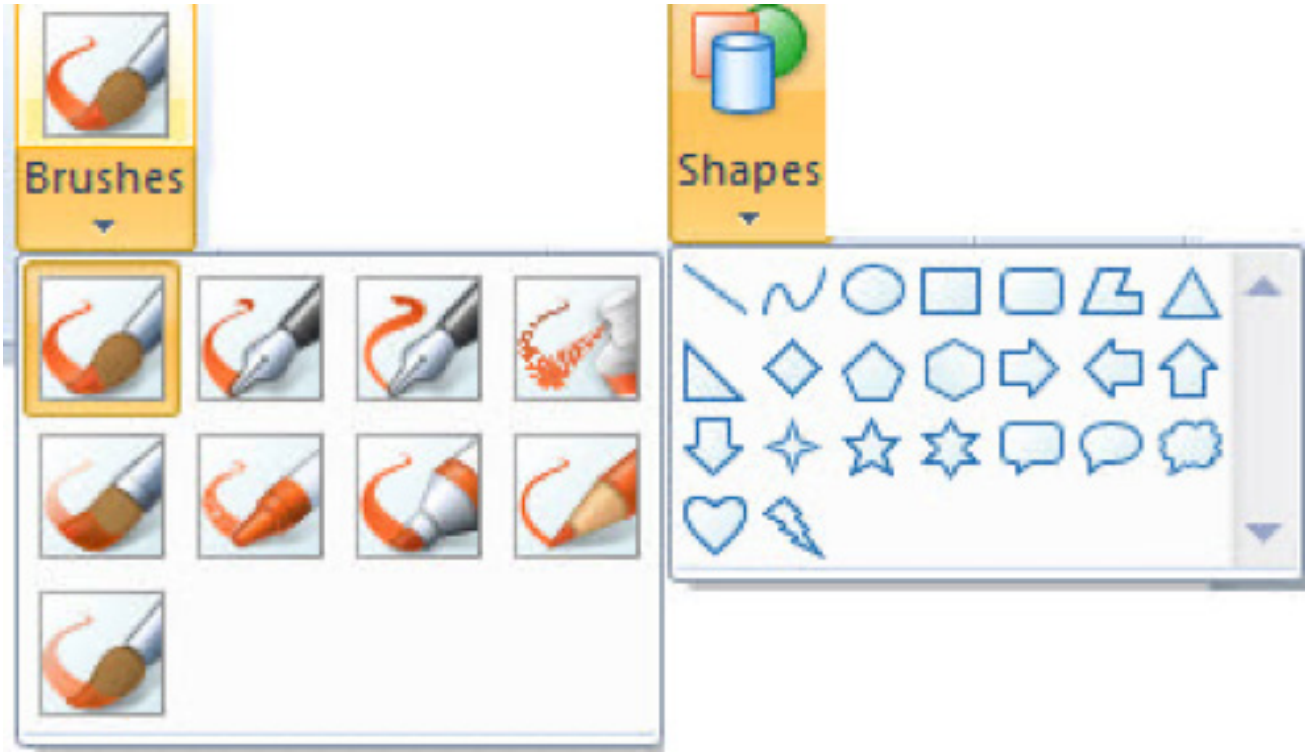
-The letter A – the option to add text.

- Eraser – will erase everything to the background color.

- Dropper – allows you to select a color from any area in the photo.

- Magnifying glass – lets you zoom in and out of the photo.

Next, you have the paintbrush options, which let you decide how the brush will work. Next to it is the shapes menu that allows you to select a shape, then draw it as you want.



You can also choose what color its outline will be, as well as the fill. If you don't like a solid fill/ outline, you can use the other available option in the menu.

You can also choose the size, the thickness of the brush/pencil strokes. If you did an action that you're not happy with, you can undo it by using the keyboard combination Ctrl+Z.

Video tutorial on the following link

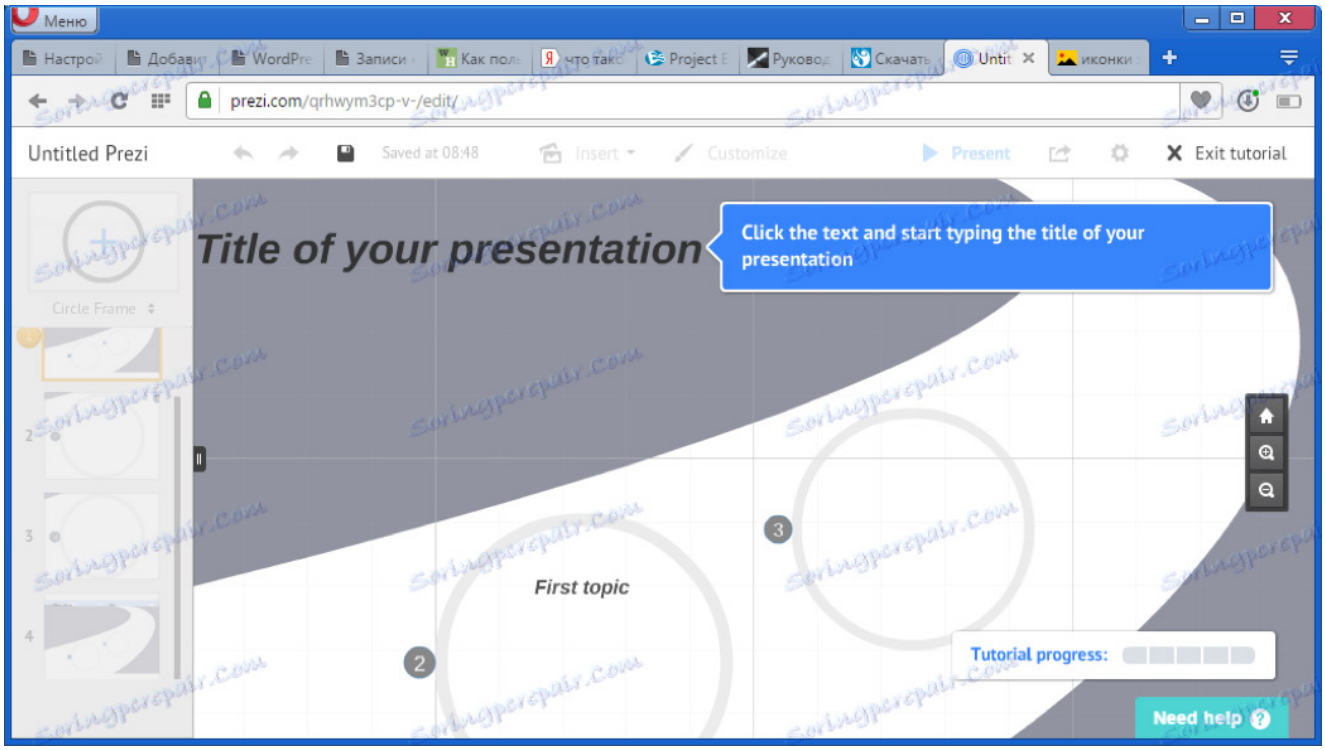
https://www.youtube.com/watch?v=hlnodEYZ71w

Prezi (https://prezi.com/l/presentation-template-for-logo-design/)
Presentation - a set of objects created to present information to the target audience. Mostly these are promotional products or educational materials. To create presentations, there are many different programs on the Internet. However, most of them are quite complicated and make the process a chore.

Prezy is a service for creating presentations that will allow the creation of an effective product in the shortest possible time. Users can also download special applications to their computer, but this option is only available for paid packages. Free work is possible only through the Internet, and the created project is available to all visitors, and the file will be stored in the cloud. There are also volume limits. Let's see what presentations can be created for free.

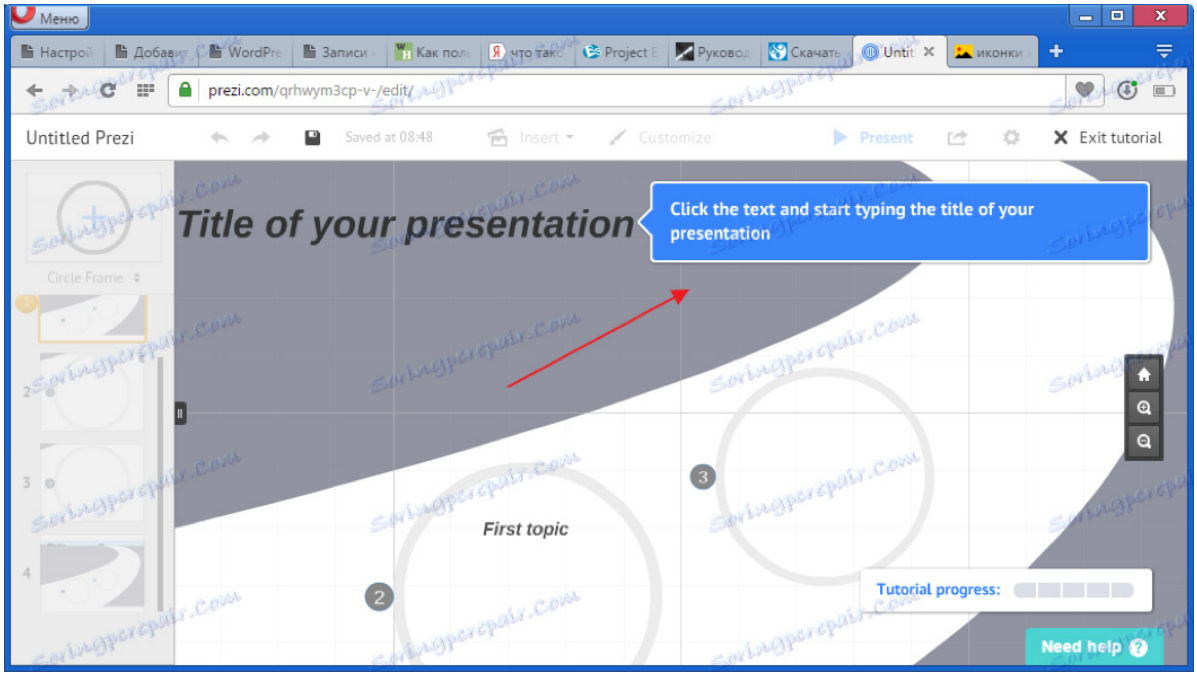
Ability to work online

The Prezy program has two modes of operation. Online or using a special application on your computer. This is very convenient if you don't want to install additional software. In the trial version, you can only use the online editor.



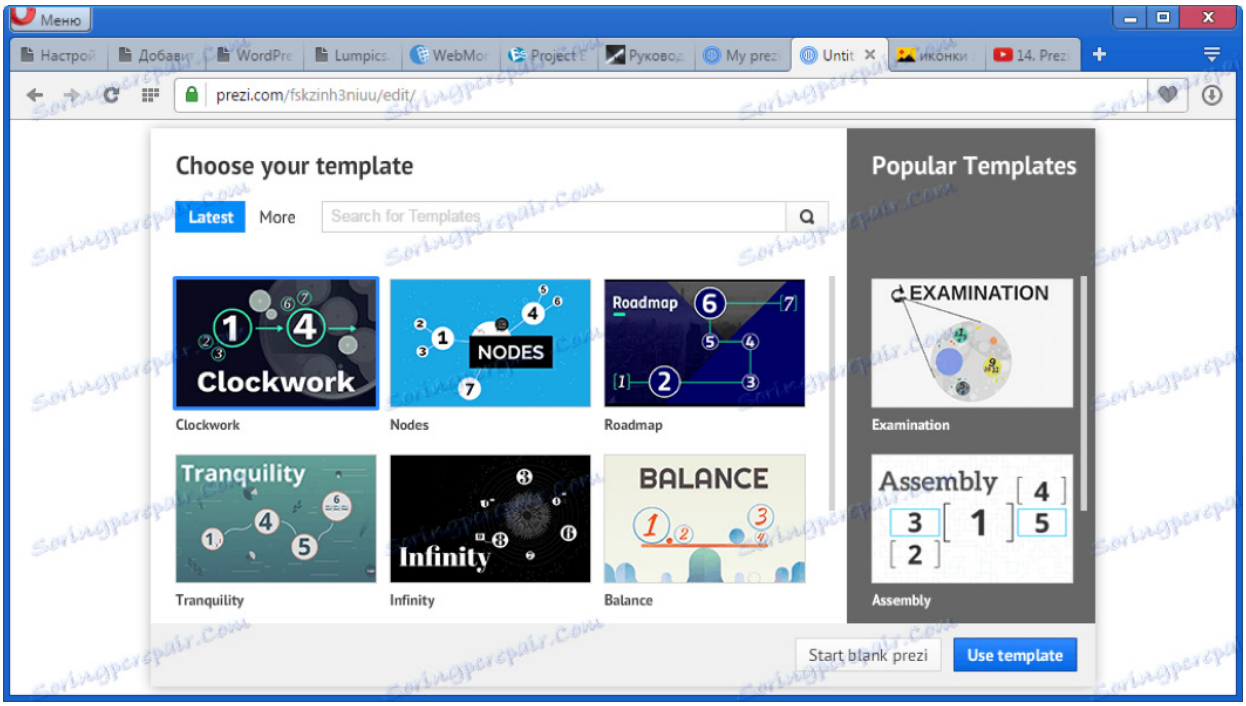
Explanations

Thanks to the instructions that appear when you first use the program, you can quickly familiarize yourself with the product and start creating more complex projects.



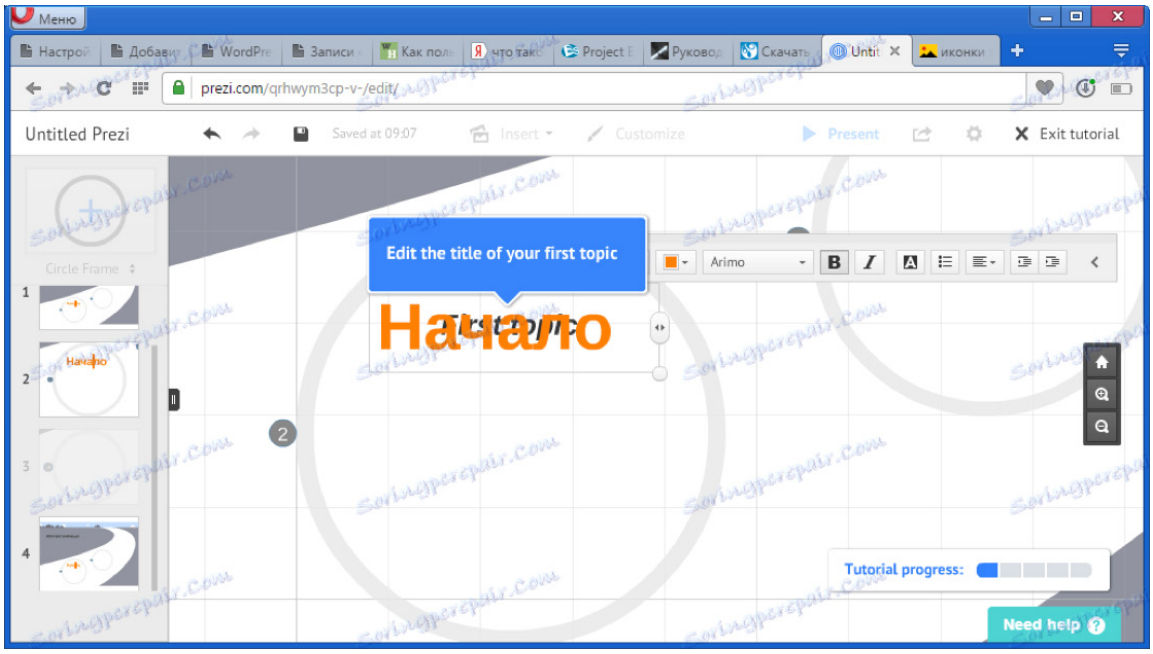
Using templates

In the personal cabinet, the user can choose the right template for himself or start work from scratch.



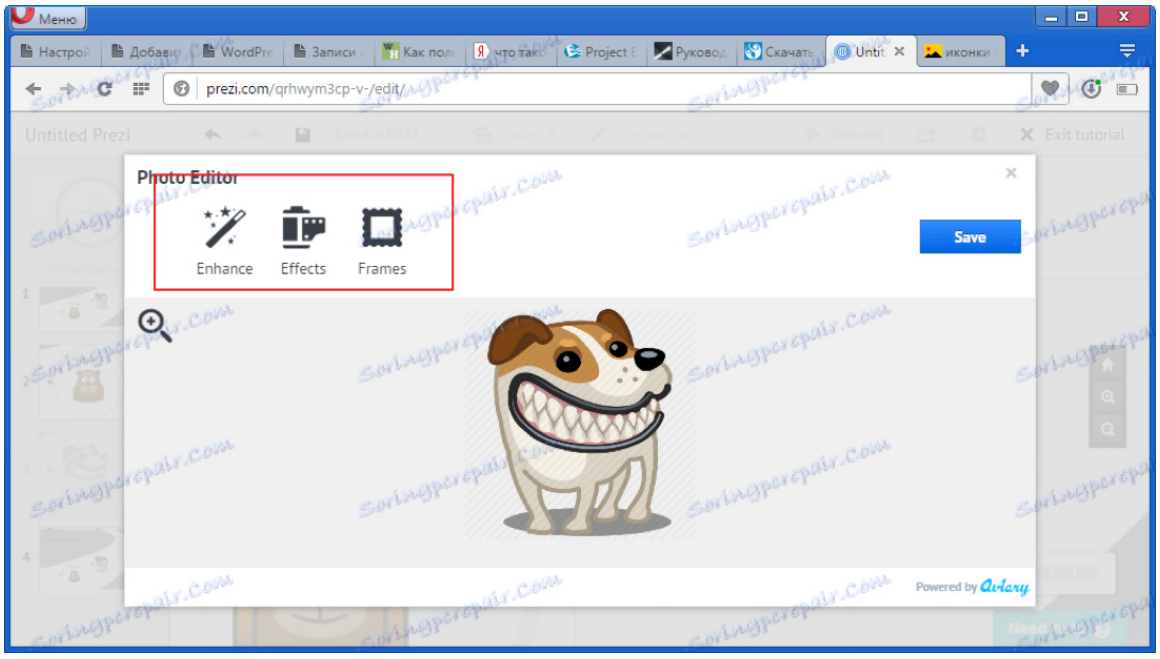
Add objects

In your presentation you can add different objects: Images, video, text, music. You can insert them by selecting from the computer or simply by dragging. Their properties are easily edited through built-in mini editors.



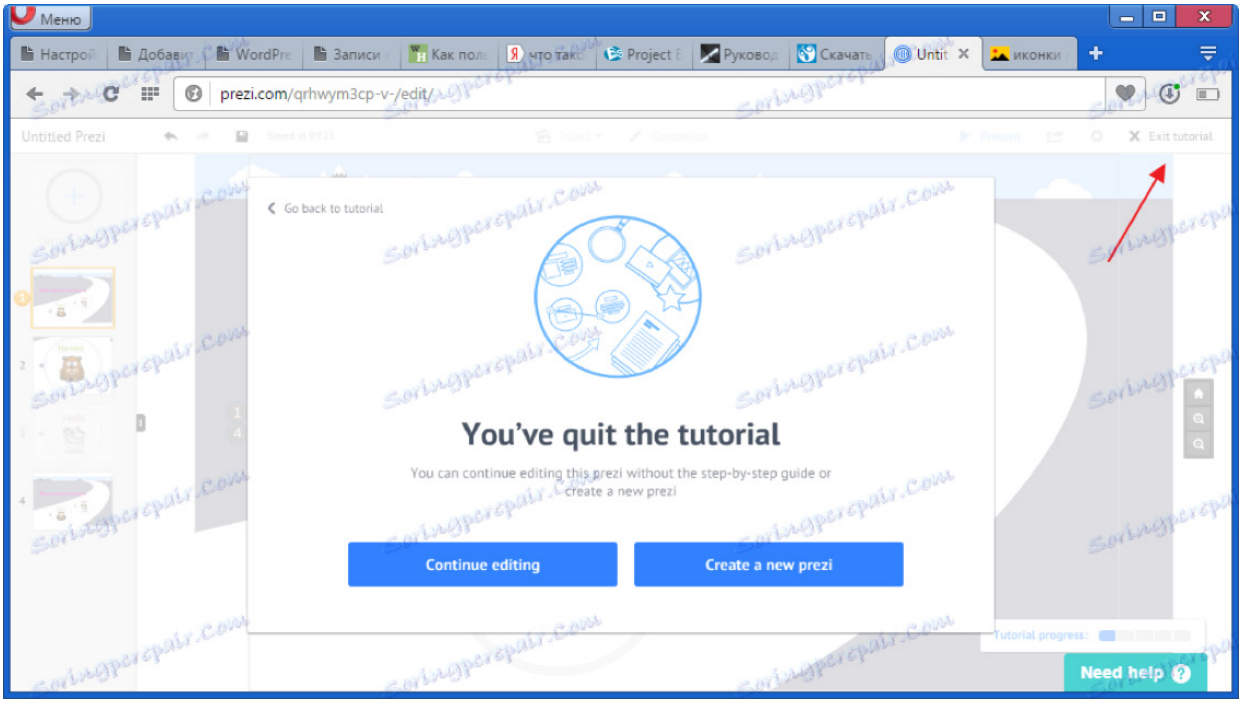
Apply effects

To add objects, you can apply various effects, for example adding frames, changing color schemes.



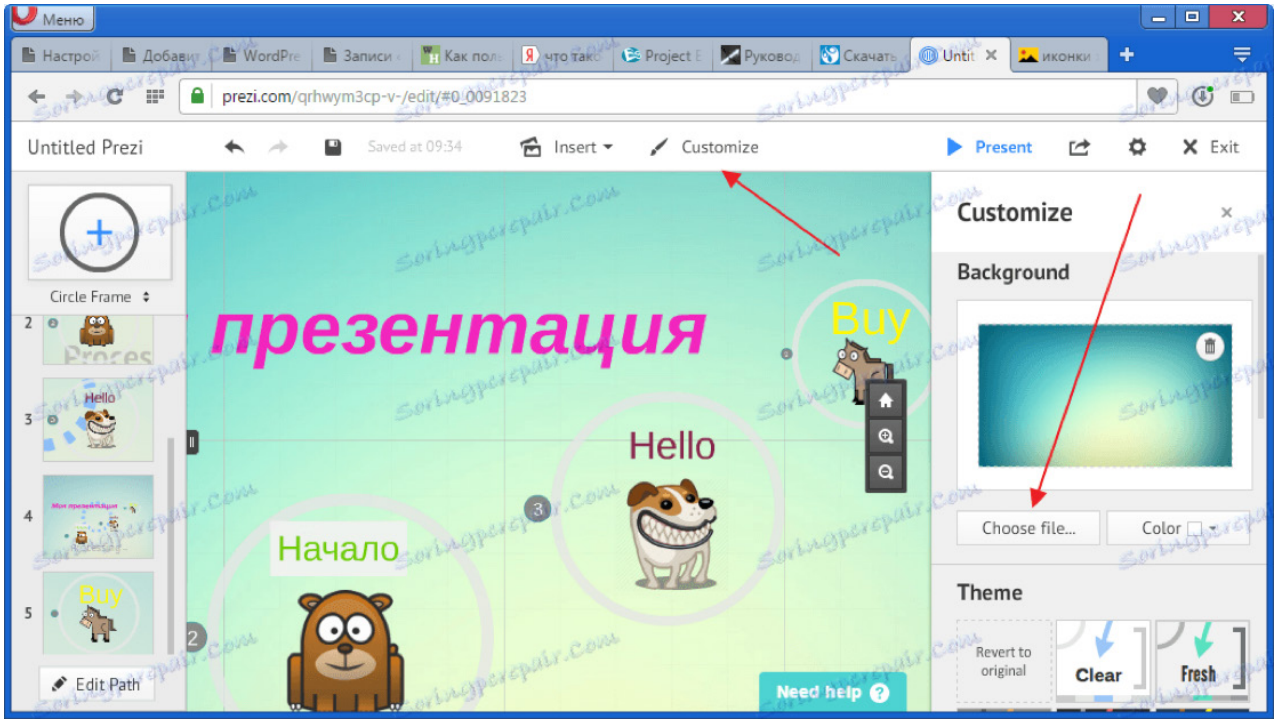
Unlimited frames

A frame is a special area needed to separate parts of a presentation, both visible and transparent. Their number in the program is not limited.



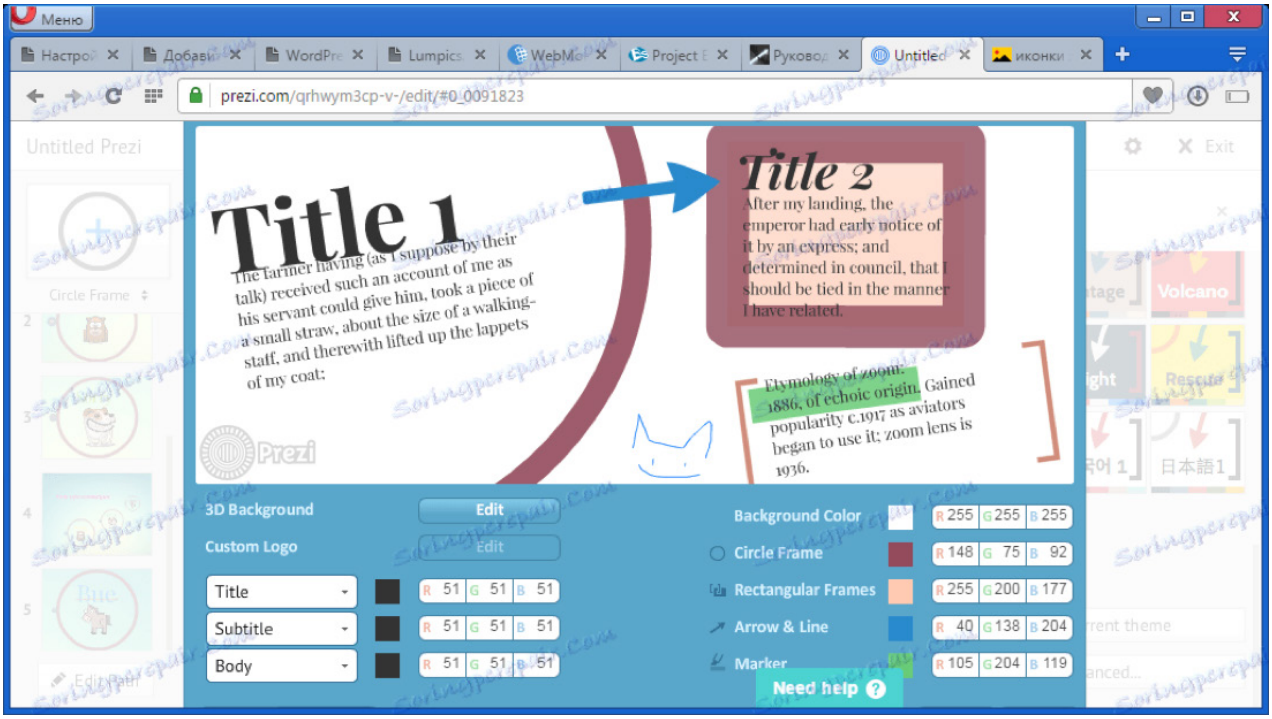
Change the background

It's still very easy to change the background here. It can be either a picture full of solid color or an image downloaded from the computer.



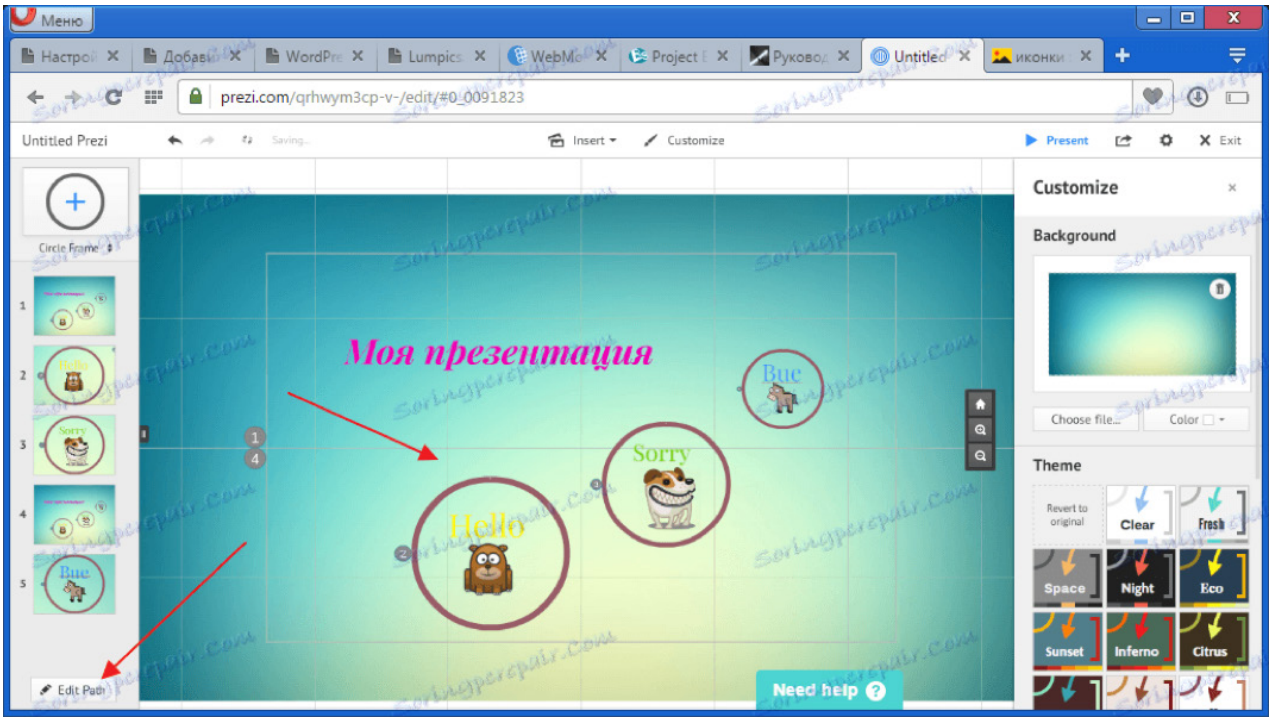
Change the color scheme

To enhance the presentation of your presentation, you can select a color scheme from the built-in collection and edit it.



Create animations

The most important part of the presentation is the animation. In this program you can create various effects for movement, scaling, rotation. Here the main thing is not to overdo it so that the movements do not look chaotic and do not distract the attention of the audience from the main idea of the project.



Working with this program was really interesting and easy. If I need to create an interesting presentation in the future, then I will use Prezi. Also, free version is enough for this.

Advantages

- Availability of a freelance designer;

- Intuitive interface;

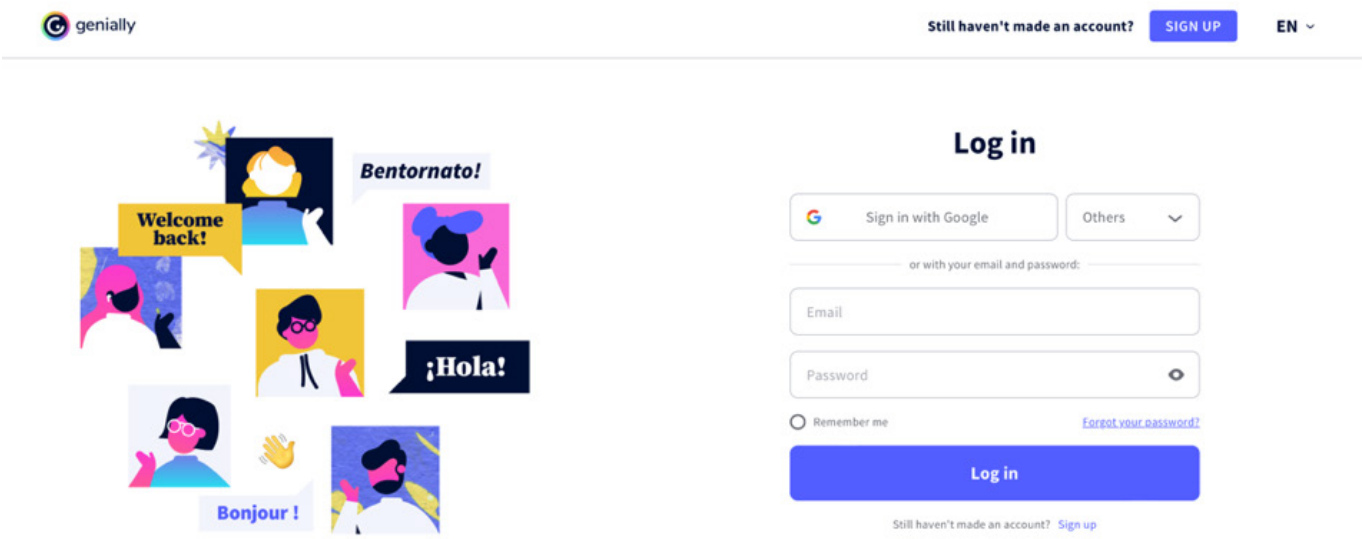
- Lack of advertising.

Disadvantages

- English language interface.

Genially (https://genial.ly) is a digital tool that enables the creation of interactive digital content.

It is necessary to register by creating an account (can also be done via Google, Facebook, Twitter, LinkedIn user account or Office 365 access).



After registration, it is enough to click on Create Genially and a menu opens with the offered contents that we can create.

- presentations: with animated and interactive elements, integrated online content and templates

- infographics: visually attractive and interactive

- gamification: quizzes, games (labyrinth, word search, escape games)

- interactive pictures

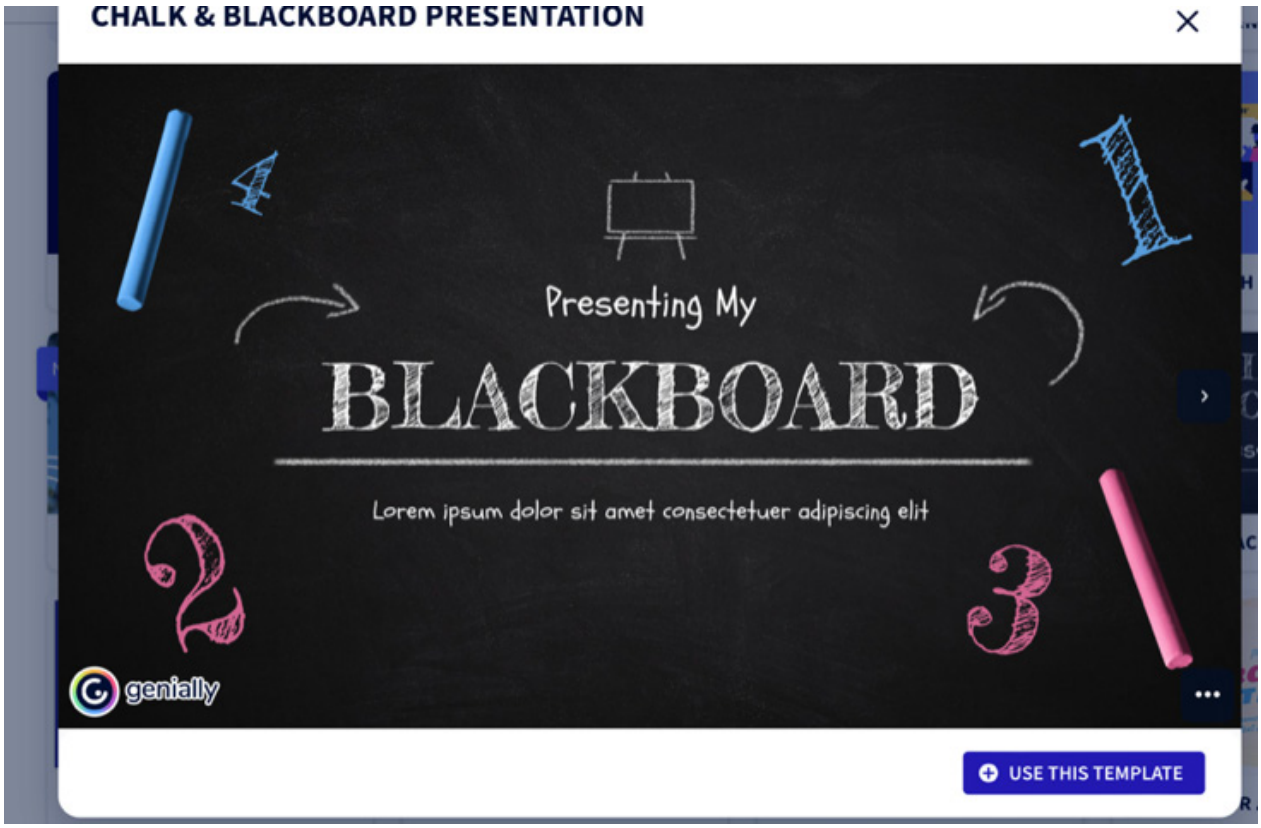
- video presentations

- guides

- training materials

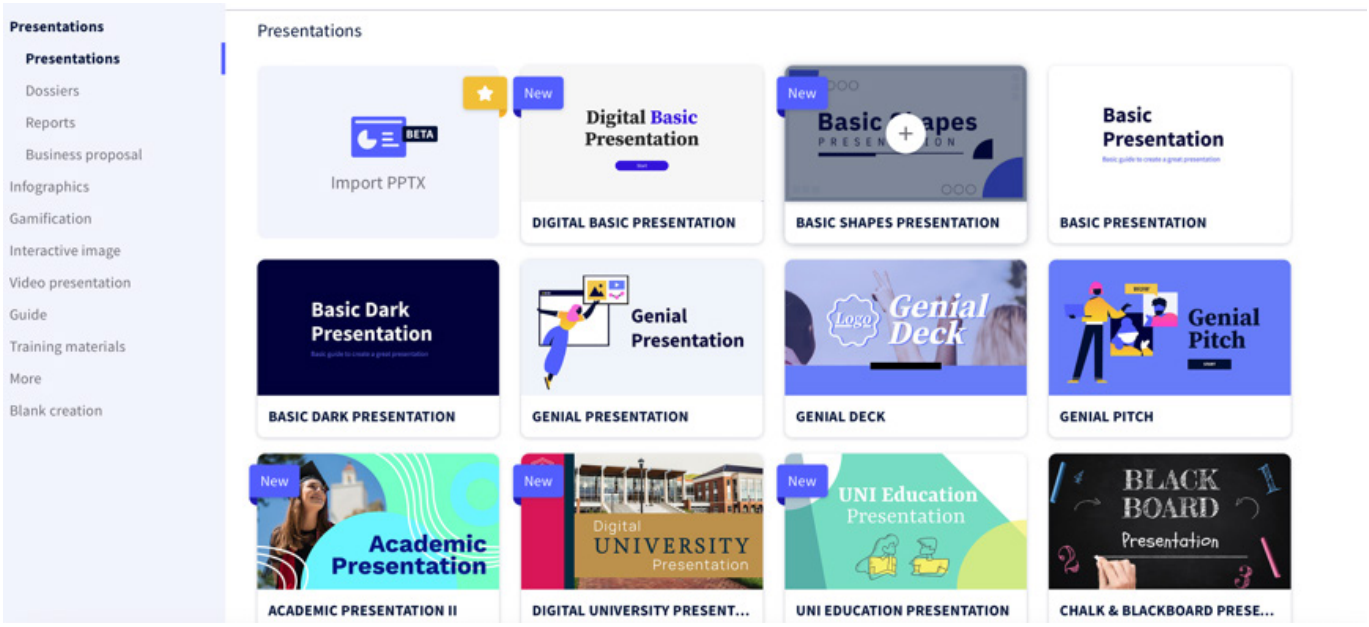
- and much more: stories, agenda, movie poster, menu, magazine cover, interactive cards…

Over a thousand templates are available in the free version, and even more if you pay for the premium version.

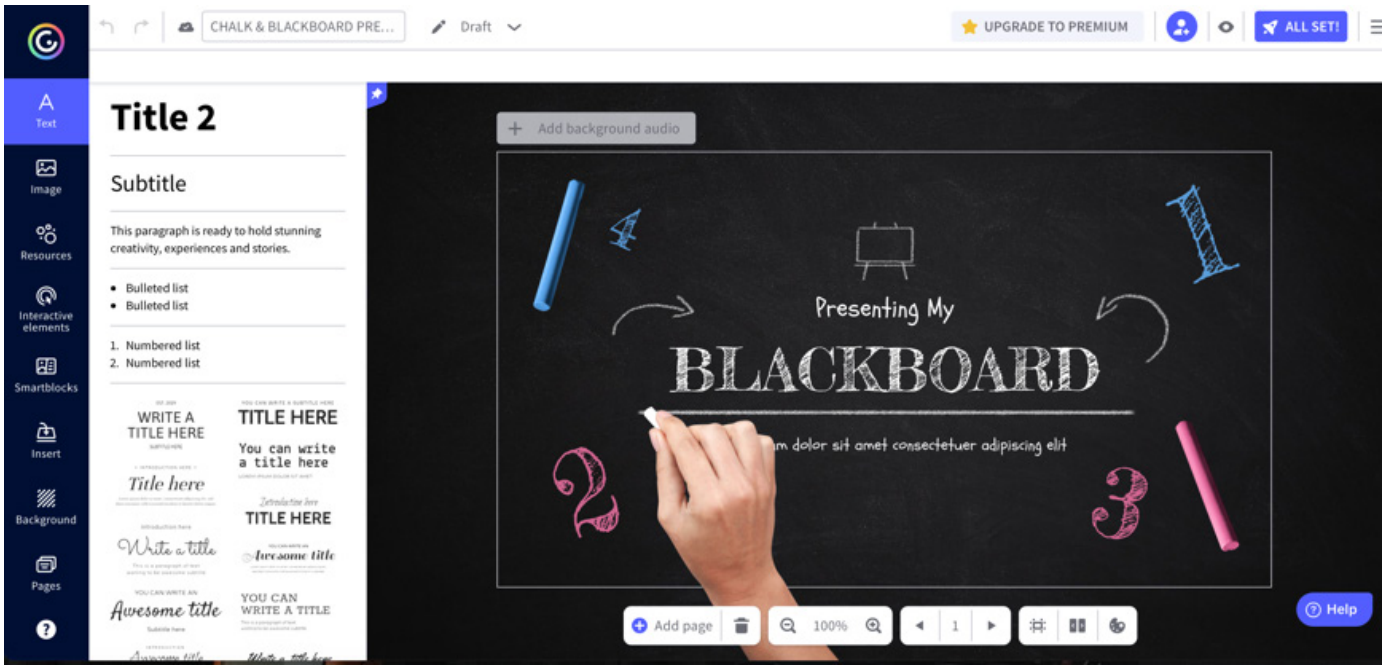


All content can be created on a completely empty template or one of the offered templates can be selected that we can customize.

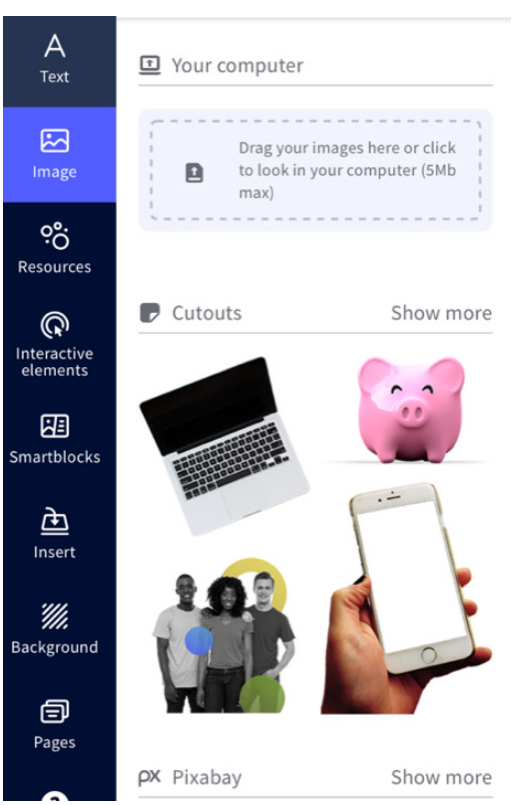
For example if you want to make a presentation, click on Create Presentations and a page with the offered templates will open. Depending on the content, you choose the desired template (Use this template).

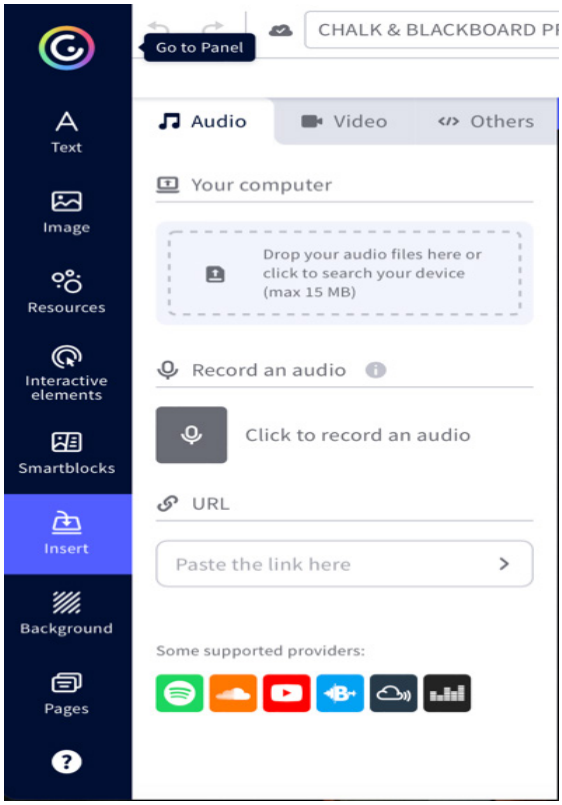


Every text you write can be left with settings such as on the template or edited: choose the font, size and color.



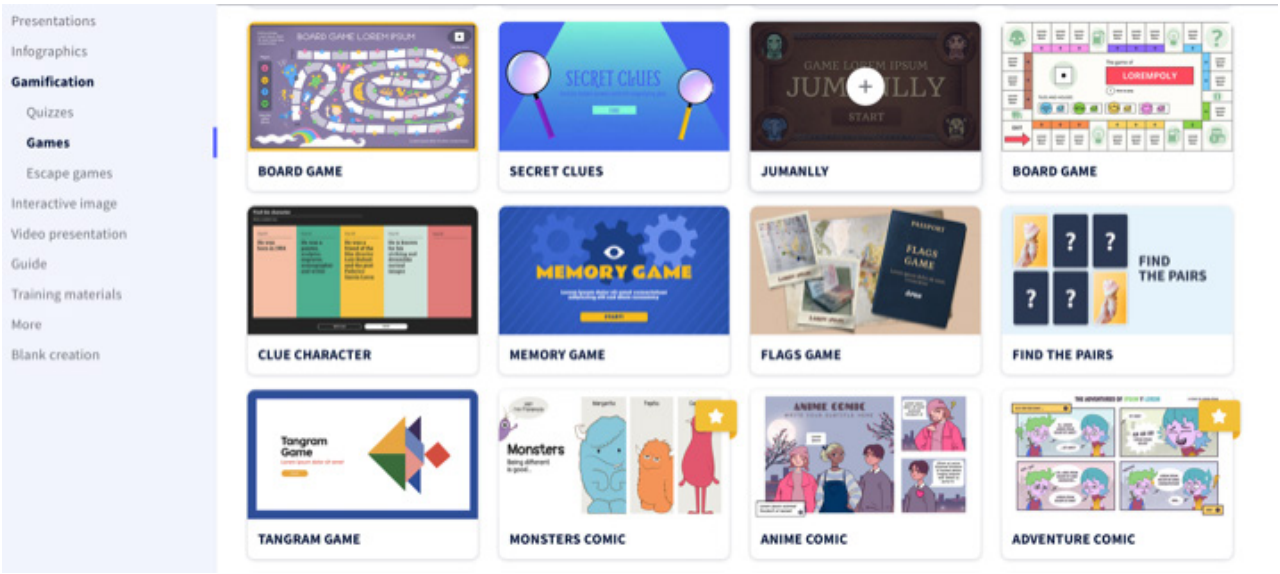
Photos provided by Genially or photos saved on a personal computer, Google Drive or Dropbox can be added.





You can complete our content with various illustrations, graphics, shapes, lines, tables, graphs and data, adding links, interactive elements, video and audio recordings.

Games can be designed, and a choice of creating quizzes, Escape room games and other games is offered.

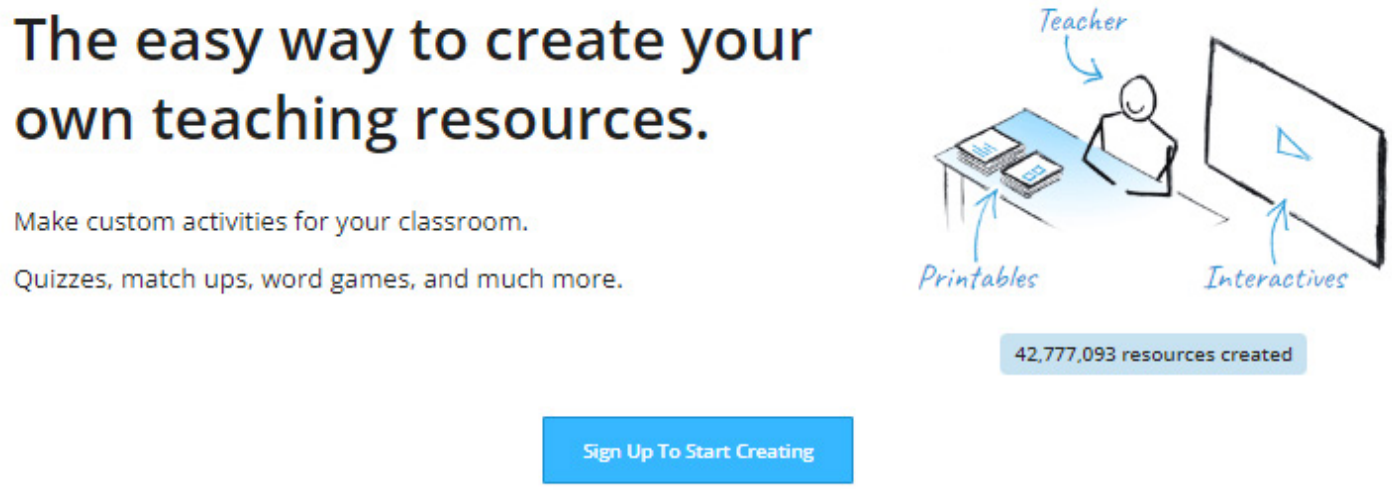


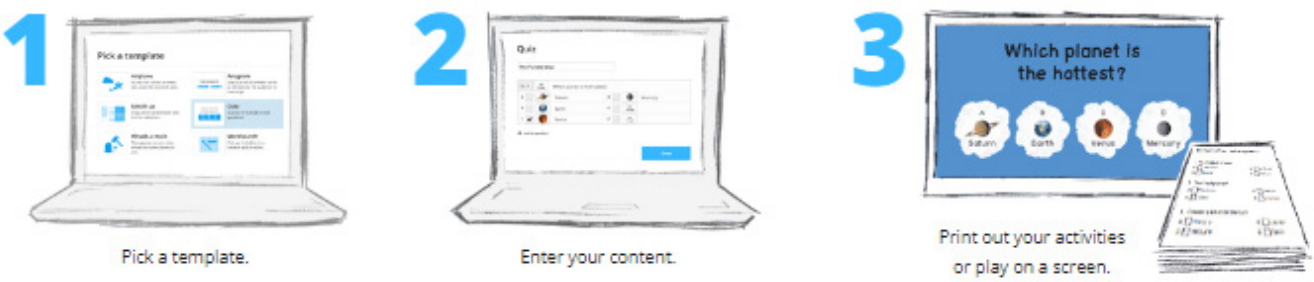
For example you want to make a board game. Choose a template, come up with questions that you will distribute around the board. Write down the questions by clicking on a specific number. The option to edit the question opens (click on Windows). Write a question, you can add a photo, video, table or link. By clicking on Preview, check whether you have successfully made the game.

https://www.loom.com/share/7db9f26b839544948a3a9fd6b7ce4b10

Wordwall

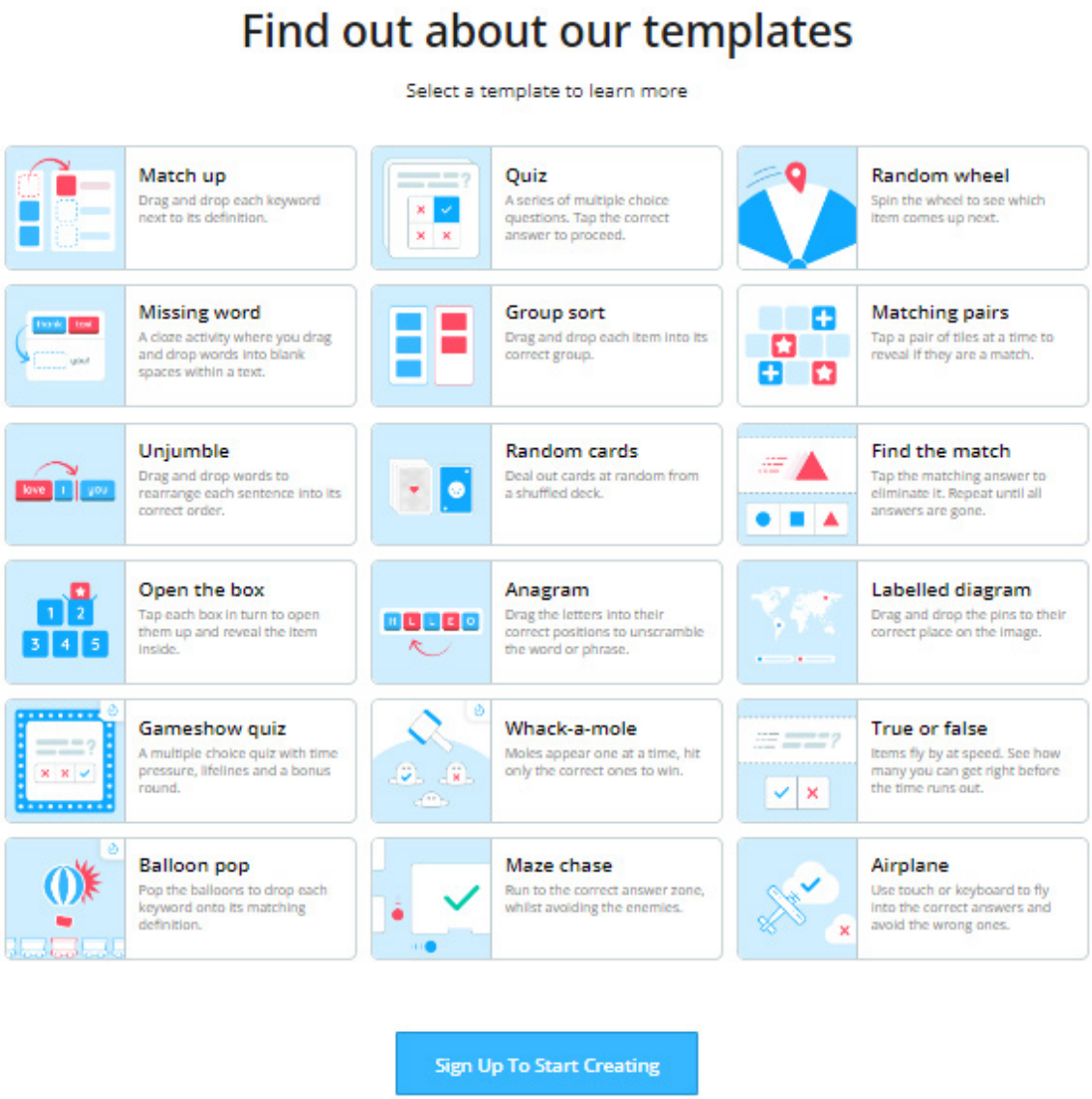
Wordwall is an online platform designed to help teachers create an array of interactive and engaging class activities for students in person or online. This platform provides various templates for teachers to select from. All an instructor needs to do is supply the content and Wordwall will automatically generate the materials for the class.





Choose from a variety of templates, ranging from the common multiple-choice quiz like Kahoot! or matching pairs, anagram, sorting out, or cloze questions.

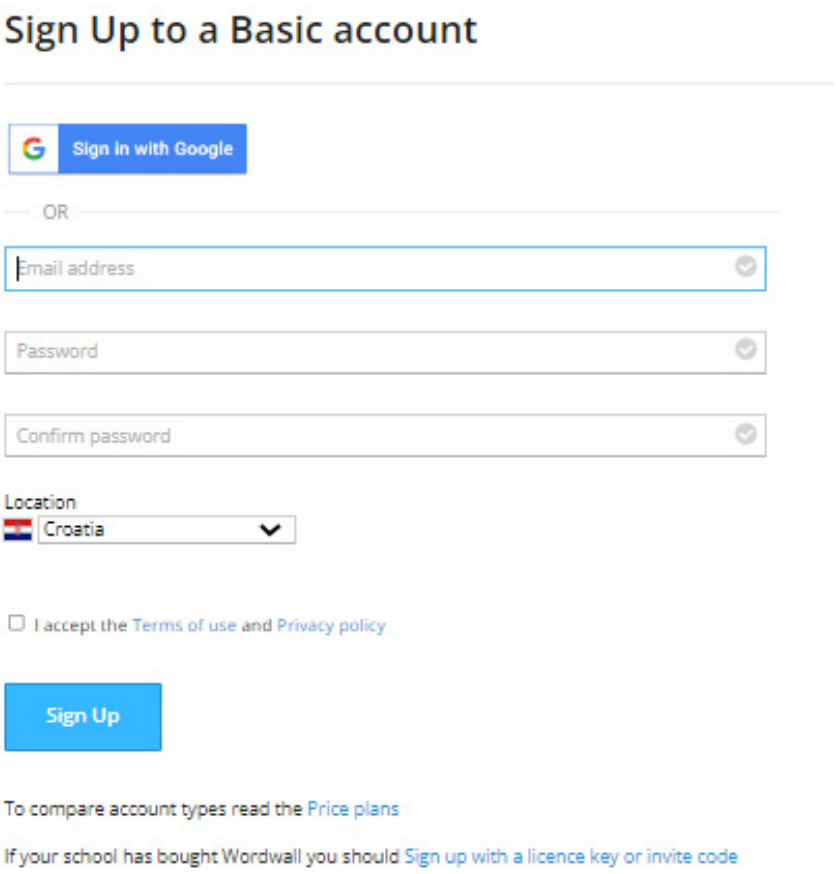
Students can do these activities as interactive in-class assignments or for homework. Teachers can track their student's activity results once they are completed.



This platform can help save instructors from preparation time, create a more interactive online learning experience, reduce the use of paper worksheets, foster student paced learning, and allow teachers to track their students' progress.

Website: https://wordwall.net

At the begining it is necessary to register with e-mail address and set the desired password. After registration, we automatically access the toll as a registered and logged-in user.



More about Wordwall:

https://otl.du.edu/knowledgebase/introduction-to-wordwall/

https://wordwall.net/hr/features

https://linkthings.org/2021/08/23/reviewwordwall/

Links for video:

Tutorial for beginners:
https://www.youtube.com/watch?v=4hlRcu36mgc&ab_channel=Charlie%27sLessons

Useful Tricks:
https://www.youtube.com/watch?v=STslE2B3xy4&ab_channel=RussellStannard%28Teacher-TrainingVideos%29

Advance training for Language teachers:
https://www.youtube.com/watch?v=7clIANVFezk&ab_channel=RussellStannard%28Teacher-TrainingVideos29

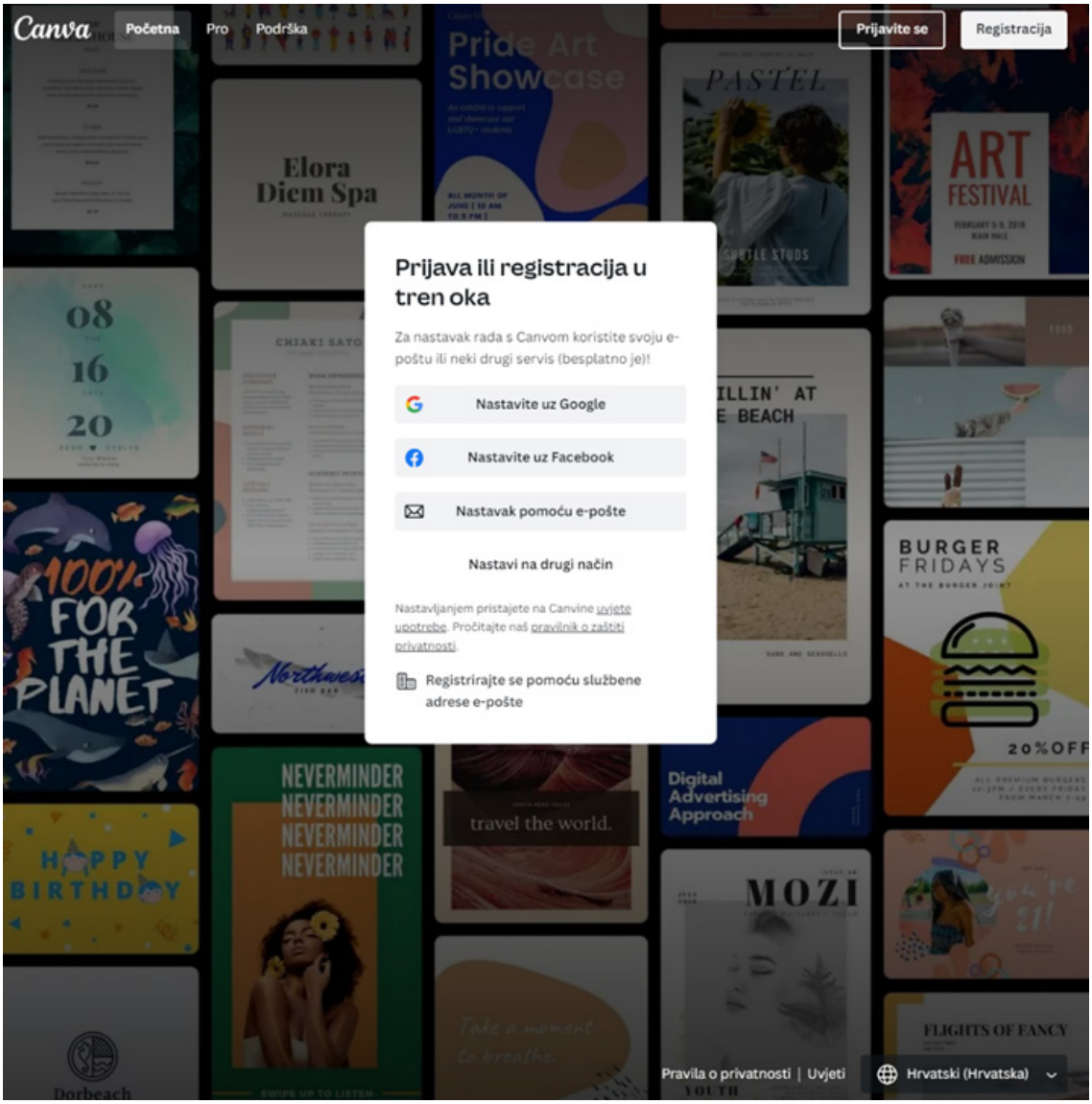
5 unknown features:
https://www.youtube.com/watch?v=BUF__D90lkc&ab_channel=RussellStannard%28Teacher-TrainingVideos%29

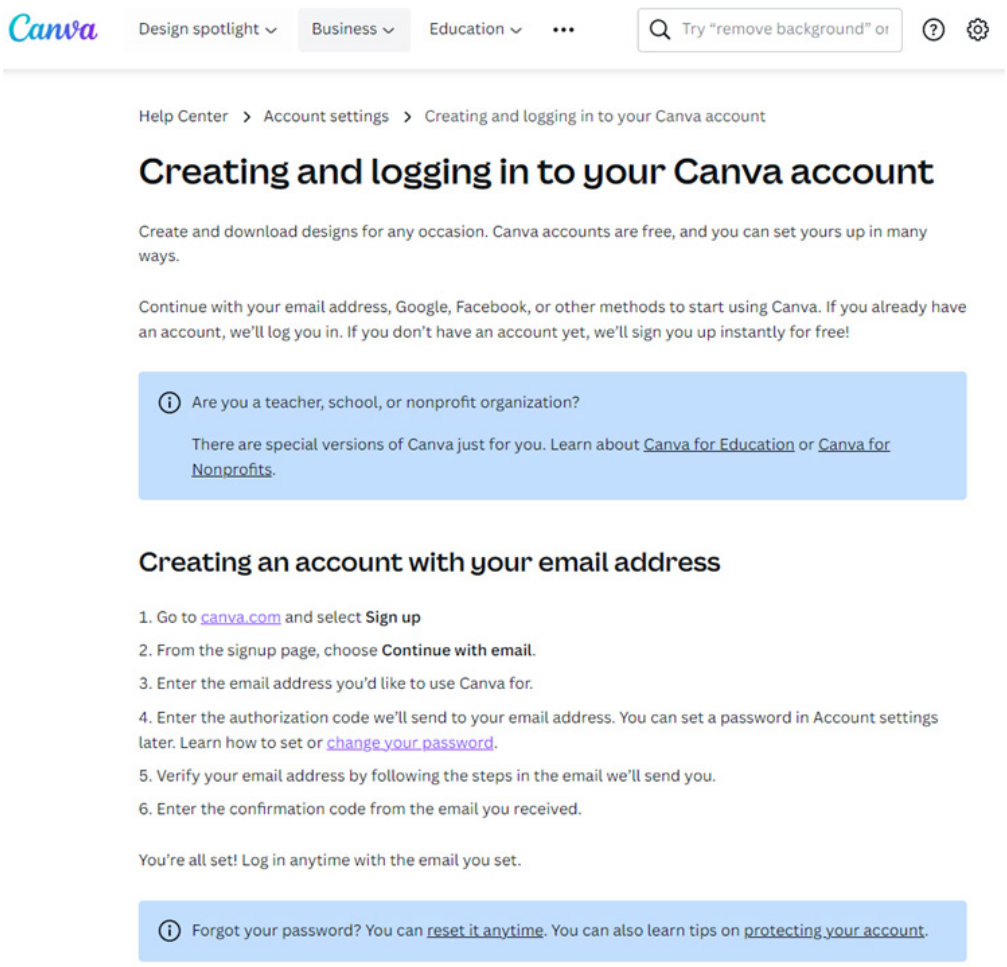
Canva

Canva is a free graphic design platform that allows you to easily create invitations, business cards, flyers, lesson plans, Zoom backgrounds, Instagram posts and more using professionally designed templates.

Canva is a free program with a paid version. Its format is easy to use, since you only need to drag and drop the cursor to make figures, choose new designs or align texts.

• At the beginning it is necessary to **create an account on Canva**. Once an account is created, for free, you can pick if you're using it as a teacher, student, or anything else. This will tailor the experience to your needs, making it simpler to search.





https://www.canva.com/help/sign-up-log-in/

• A quick tour of Canva's top menu

Start by creating an account or signing into Canva. Then, let's start with the top menu. The Home button is always there to help you return home no matter where your design adventures may take you. Templates is full of thousands of designs you can customize to make your own, organized into different categories to help you easily find what you need. Features shows you photos, icons, print media, apps and more to help you design what you need. Learn has blog articles, short tutorials, and in-depth courses to help you learn more about design. And Pricing shows you how to go Pro or apply for a not-for-profit account.

https://youtu.be/V9LtRF6EbyY

• A quick tour of Canva's side menu

There's another Home button for you in case you need to reset after a deep dive somewhere. Then there's Your projects – this is where you can find, and organize, all your designs. It's organized into sections so you can find what you're looking for quickly. You can create folders to keep things tidy and share individual designs or folders with collaborators too. The next button is Templates. This takes you through to thousands of designs to help you start inspired and

show you ideas for different design assets. There's a recommended tab that shows you some things you may like based on your designs, as well as templates for heaps of other design assets. The Shared with you page is where you'll find any designs someone has shared with you. This makes it easy to find collaborative designs. Next is Trash, any designs, images or videos you've deleted will appear here until you permanently delete them.

https://youtu.be/V9LtRF6EbyY

• Creating a team with Canva

The next menu item is Create a team, this lets you create an online team, which lets you collaborate on designs, brainstorm ideas, and leave feedback for one another all within the Canva editor.

https://youtu.be/N8w_Vl6jBqQ

• Using and customizing templates

On Canva you can find endless library of templates. Templates are made by expert designers and show you what's possible in Canva as well as showing you good design principles in practice. Find Templates in the top menu or simply use the search bar to find what you need. Once you find a template you like, open it in the editor and you'll see that all the design elements can be customized and edited to best suit your design needs. You can remove, resize, change the color and position, even duplicate elements to best suit your design.

https://youtu.be/g7fmkpXZqzY

• Using search and personalizing the editor

The search bar lets you use keywords to find what you need in your own designs and uploads as well as Canva's library of templates, elements, images, and videos. Use it to quickly locate design files, find new elements or browse for some inspiration in templates.

https://youtu.be/NTJ5uZrC7B4

• Uploading and using photos

Using your own photos and imagery in your designs is rewarding and a great way to make your designs truly unique. To upload content – it can be photos, illustration, and video – click on Uploads in the side panel, then Upload Media. You can also click and drag media directly into a design.

https://youtu.be/TAgS7HsSEQA

• Using and editing elements

Canva has a huge library of design elements – most a free to use and some are for pro ac-

counts, and some have a small fee. In the side tab, click Elements. Use the search bar to find options around a keyword, scroll sideways through different categories, or scroll down to see some example elements for different categories. Once you find what you need, double click, or click and drag, to add the element to your design. Then, you can customize it as you need. Change the color, resize and reposition until you design is finished.

https://youtu.be/cZ43k01WH54

• Finding fonts and using text

In its simplest form, design is simply arranging text and imagery. There's a whole world of fonts to choose from in Canva. To add text to your design, go to the text button in the side panel. Search for font styles in the search bar or use one of the three preset text styles to easily click and drag heading, subheading, or body text. Scroll down for font combinations and styles and double click or click and drag to add to you design. To change the font, size, color, alignment – anything with your text – simply click on it and a text editor menu will appear.

https://youtu.be/OQGJceRFHQ0

• Uploading and editing video and audio

To upload content – it can be photos, illustration, and video – click on Uploads in the side panel, then Upload Media. You can also click and drag media directly into a design. Once you've uploaded media, it will appear in the Uploads tab. Add them to your design and you can edit, customize, and resize your assets as you need.

https://youtu.be/DJKU3ihHH68

• Sharing and collaborating on designs

When you're ready to share a design, you can download to share it or share access with a collaborator. To add a collaborator, who can leave feedback as comments in your design, in the top right corner click Share. Type in their email address, include a message or notes, set their level of access (options include full edit access, can comment, can view- can't comment or edit) and then click send. You can download your design, share it straight to social media or use our printing portal for heaps of printing options.

https://youtu.be/hyaMhBqGT9Q

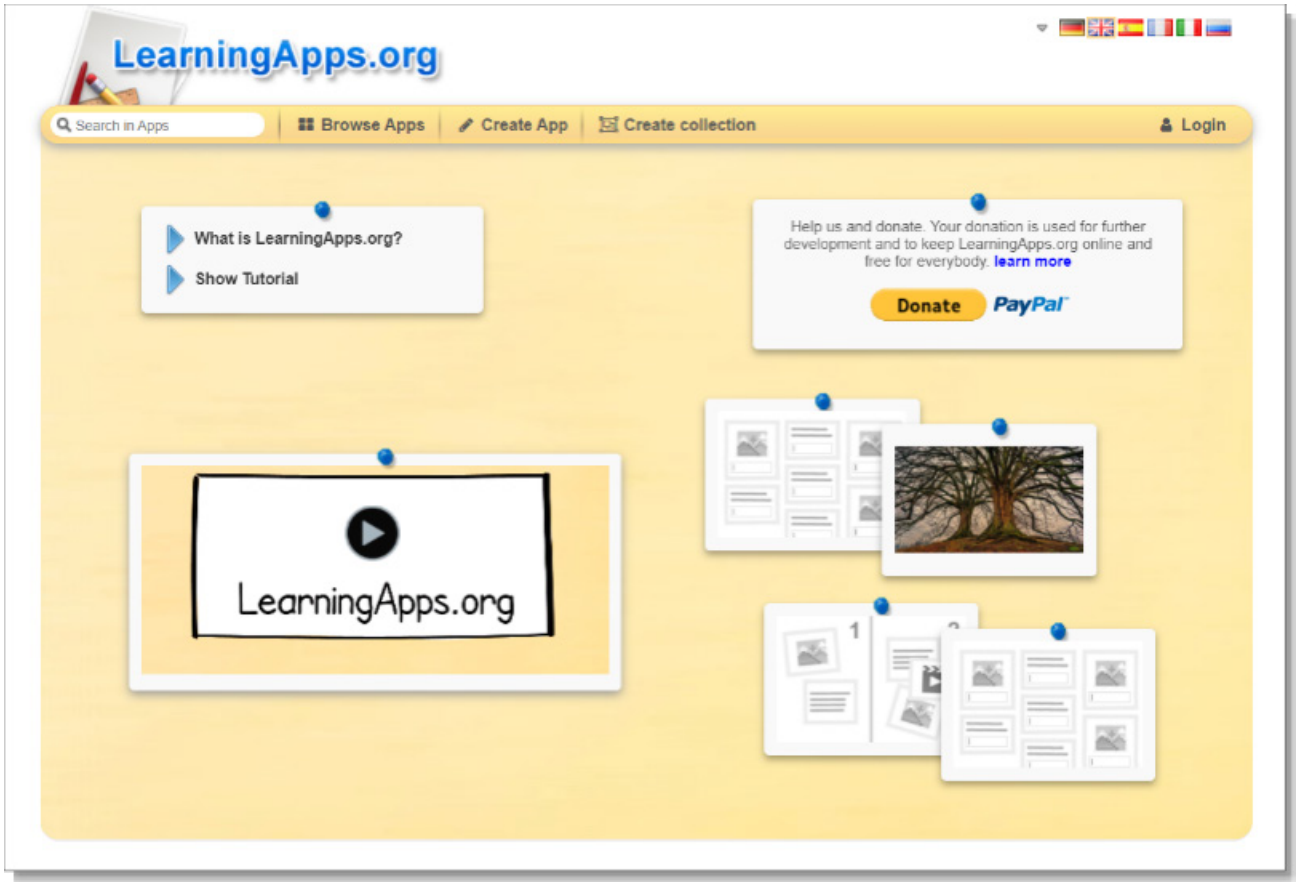
• Saving and organizing documents

Canva autosaves your design as you go. So, design, if you have any computer or internet issues, you can design assured Canva autosaves every five seconds. If you want to manually save your design to a specific folder, in the top menu click **File**, then **Save to folder**, then choose your desired folder. You can also create a new folder there too.

https://youtu.be/cv8rd-q7kZs

LearningApps.org (https://learningapps.org/) is a Web 2.0 application supporting learning and teaching with small interactive modules.

Those modules can be very easily created and used online. A number of templates (assignment exercises, multiple choice tests, etc.) are freely available.

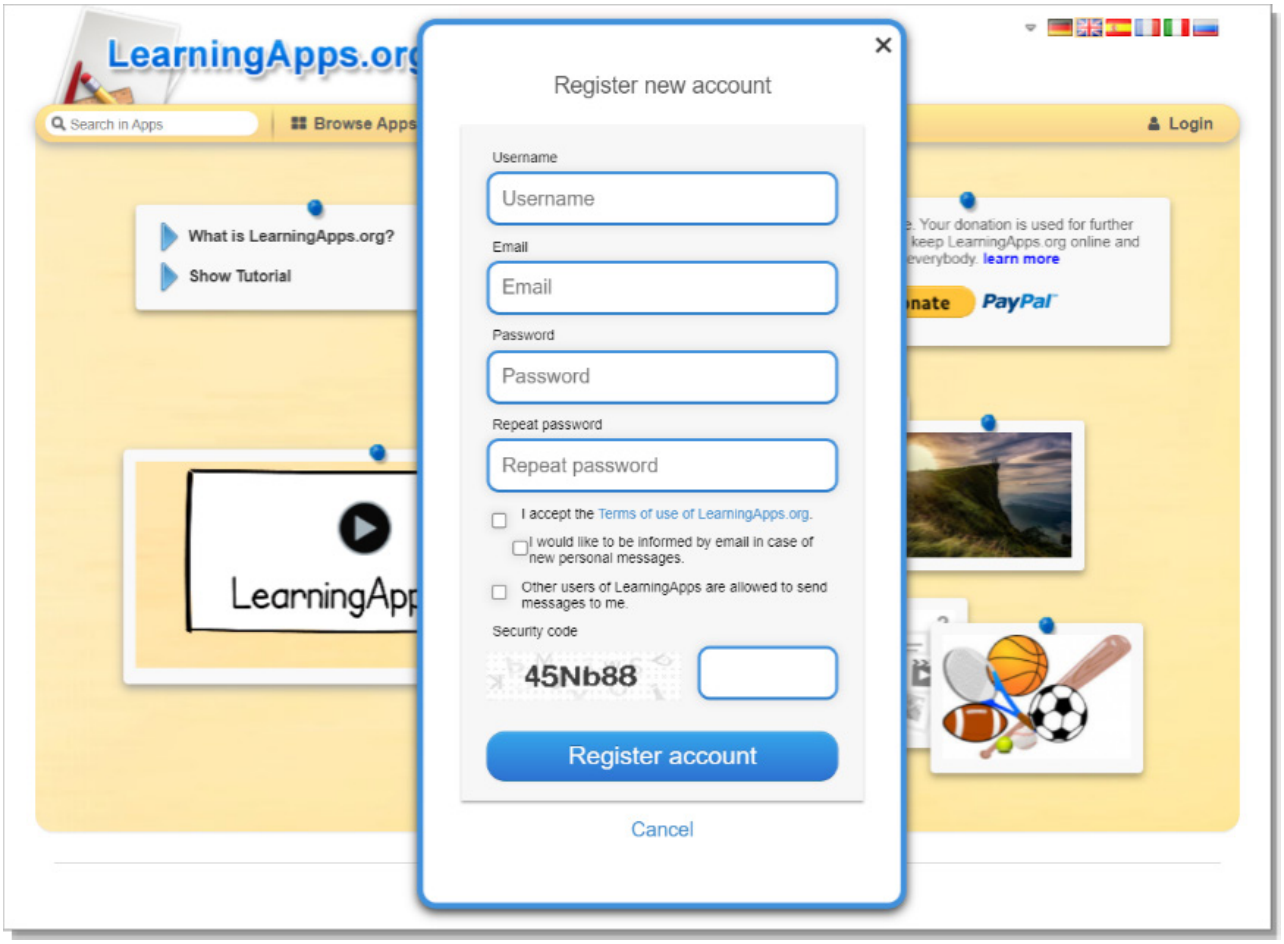


The modules can be used directly as learning materials, but also for self-studying.

Registration

You need to register to take the full advantage of all the different modules the application has to offer. It is all done through the “Login” button in the upper right corner.

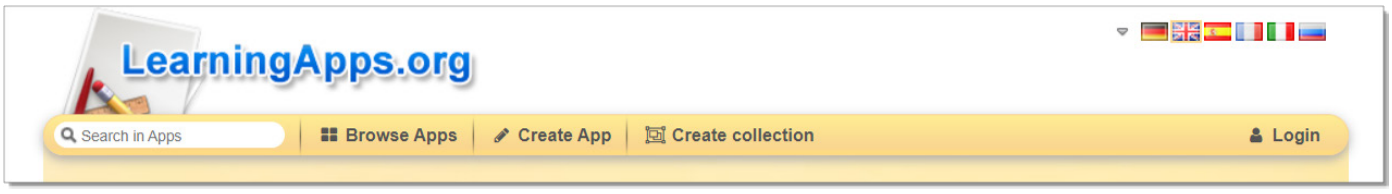
You will have to set up a new account. The application does not currently support logging in with either Google or Microsoft account.



Homepage

There are several controls situated in the top menu:

1. you can enter keywords to search the App collection;
2. you can browse available apps in the overview page;
3. you can create your own apps by using templates;
4. you can also create a collection out of several different apps.

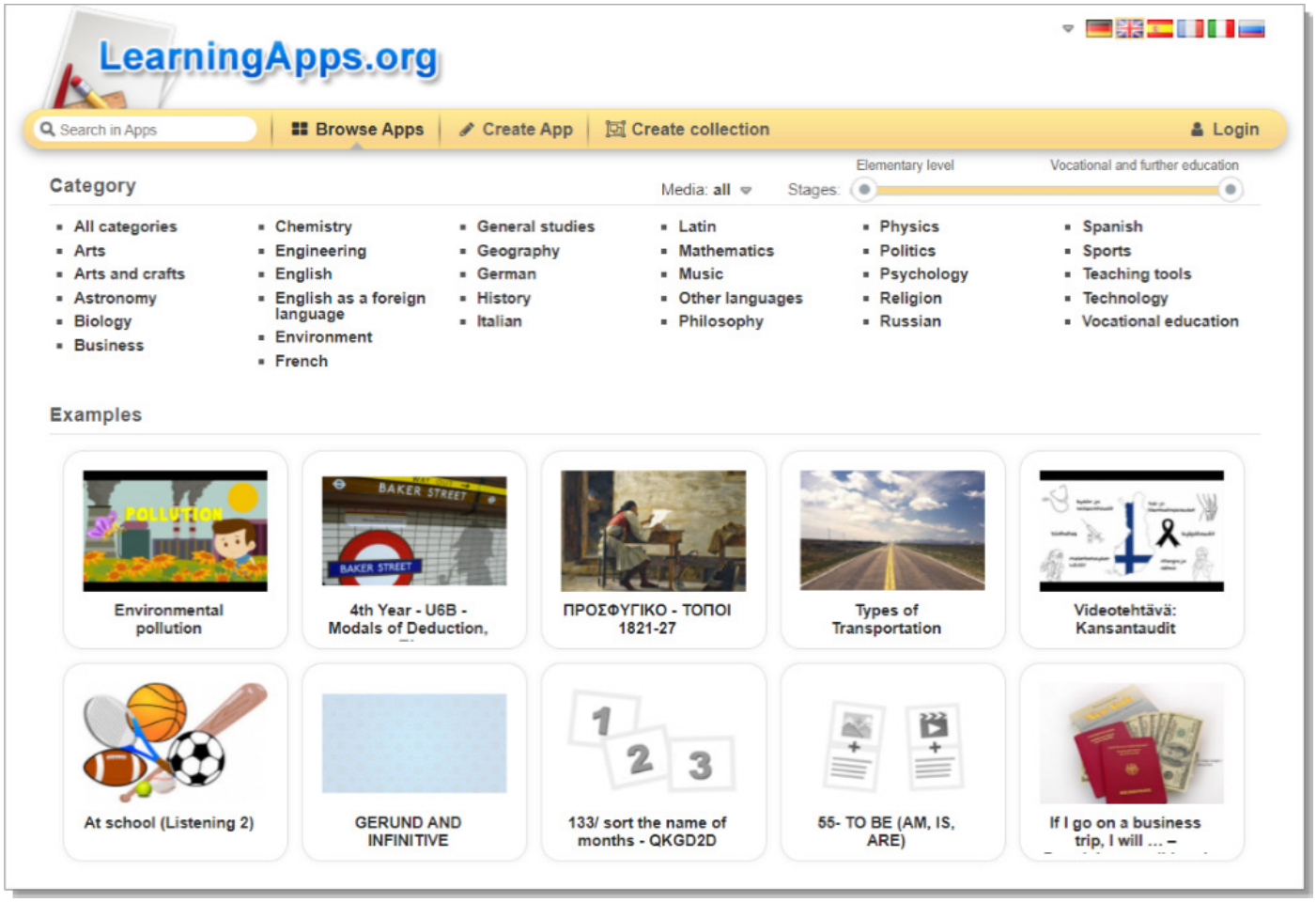


The overview page

There are many apps shown with a small thumbnail when you click the “Browse Apps” button.

You can filter the apps by subject, type of media present and education level.

The details page shows up if you click on an app. You can try out any example app you want. You can also find several links for copying and sharing there.

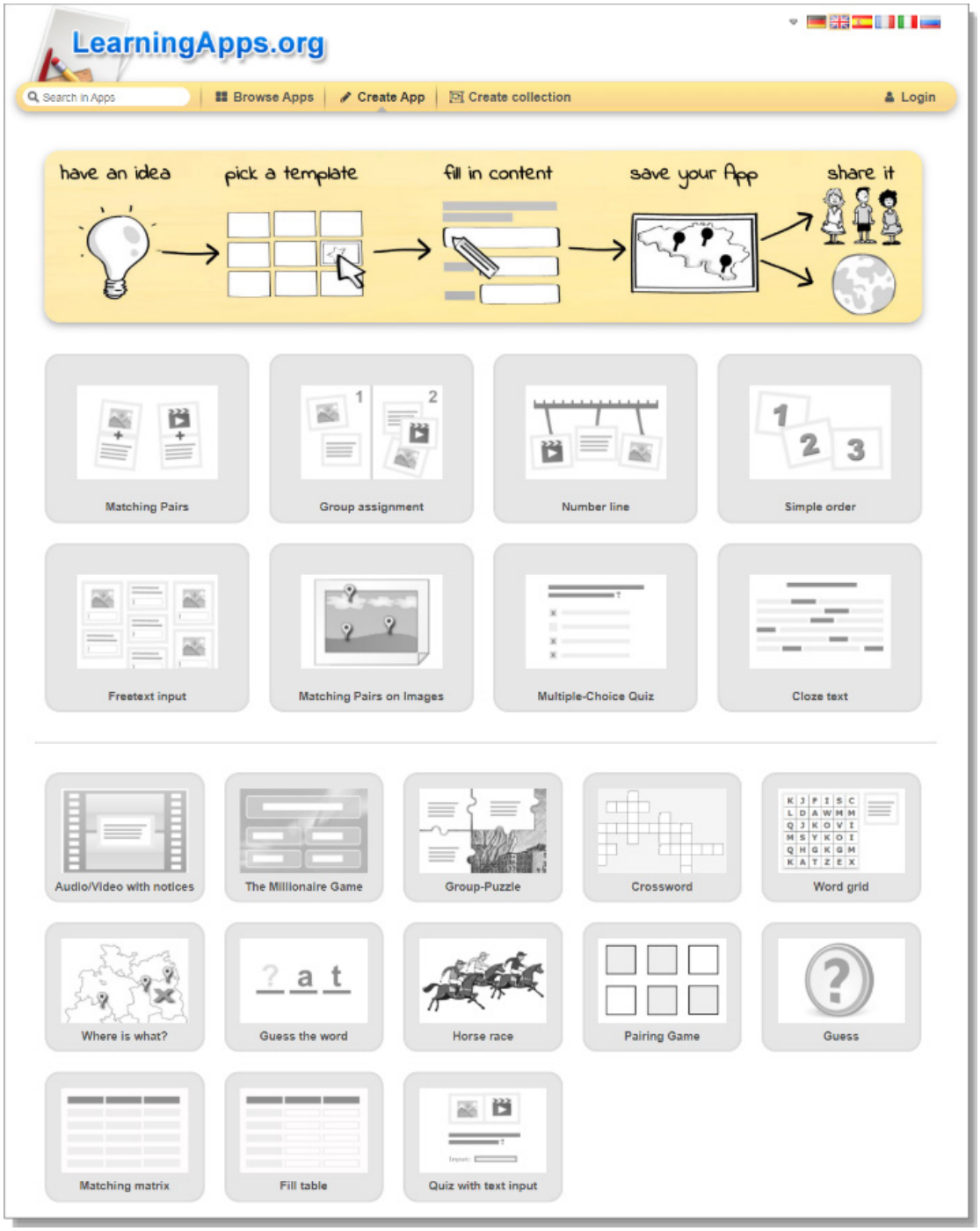


Templates

You can use existing apps as templates or you can use empty templates to create your own modules from scratch if you click the “Create App” button.

There are 19 different templates in total:

Matching pairs; Group assignment; Number line; Simple order; Freetext input; Matching pairs and images; Multiple-choice quiz; Cloze text; Audio/video with notices; The millionaire game; Group-puzzle; Crossword; Word-grid; Where is what; Guess the word; Horse race; Pairing game; Guess; Matching matrix; Fill table and Quiz with text input.



You can find more information about this app on the following links:

https://learningapps.org/impressum.php

https://learningapps.org/LearningApps.pdf

https://verein.learningapps.org/

https://learningapps.org/tutorial.php

Live Worksheets Maker (https://www.liveworksheets.com/) is a platform where educators can use their traditional printable worksheets as interactive online exercises, "interactive worksheets". The interactive worksheets may include sounds, videos, drag and drop exercises, join with arrows, multiple choice, and even speaking exercises. Educators can use live worksheets to create their own interactive worksheets or use the ones shared by other teachers. Many of the worksheets are also downloadable as pdf, but this option has to be allowed by the author. Users can download up to 10 worksheets per day.

Students can do the worksheets online and send their answers to the educators which is exceptionally good for online teaching.

The website is free to use, but in order to use it one must register. There are two registration options:

Users can register as a teacher or as a student. The registration is easy and requires an email address and few basic information. There is also an option to link different social media accounts or a personal blog or a web page. When a user registers as a teacher they get a secret keycode.

The teachers who share their interactive worksheets with the rest of the teachers can make as many as they want, but there is a limit of 30 private worksheets. Users can't share worksheets taken from other websites or ones that are scanned from textbooks or include any copyrighted content without authorization. There is also an option of creating an interactive workbook. Users can make up to 10 interactive workbooks (with 120 pages each) and register up to 100 students, but if use users need more students, more workbooks, or more private worksheets, users need to pay a premium subscription to increase these limits.

There is a detailed description of how to create interactive worksheets or interactive workbooks. Users can follow a step-by-step description or watch a video tutorial.

There are two ways to get the student's answers. One (also the simplest) way is for the students to open the worksheet, do the exercises and click "Finish". Then they choose "Send my answers to the teacher" and enter their email (or secret keycode). Then the educator gets a notification in their email, and they can check all their students' answers in their mailbox. There is no limit on the number of worksheets that the students can send to the educator, but all their answers will be deleted after 30 days.

The more complicated option is to make interactive workbooks and add your favorite worksheets. Users can add their own worksheets and also worksheets shared by other teachers.

Then the user has to register the students (They can also register themselves with your secret keycode) and assign them the workbooks.

After that the students can open the workbooks with their username and password and do the exercises. The educator can check their work at any time, assign homework and add comments or notes.

Students may optionally register their email to get notifications of their homework and teacher's comments.

The interactive workbooks allow teachers' feedback and save all the students' answers for an unlimited time.

You can learn how to create worksheets with this tool on the following link:
https://www.youtube.com/watch?v=ipC_07xkf5A&ab_channel=MONTEMORments

Loom (https://www.loom.com/) is a video messaging tool that helps you get your message across through instantly shareable videos. Loom allows users to record their camera, microphone, and desktop simultaneously. The video is then instantly available to share through Loom's patented technology. They offer Starter, Business, and Enterprise plans of which the starter plan is free. Loom also offers free use for educational purposes. The teachers can use loom by setting up a free account with their school email and then it takes few days to process their application.

There are 4 recording options: Loom desktop app, Loom iOS app, Loom Android app and Loom Chrome extension.

Once everything is installed users need to sign in to Loom and will be asked for permission for the camera and microphone. There are three options to record:

- you can record a combination of your screen and your camera;
- you can record only your screen;
- you can record only your camera.

If you want to record a combination of your screen and your camera, you can go to full screen and then choose advanced settings. In the advanced settings, you can change your camera and audio source and also you can choose to add a control menu or add a recording countdown. When you choose your preferred settings just simply press record and start recording your lessons. When you finish the lesson, you can use loom editor to do additional edits if you want. You can share your video directly by adding students' emails or you can download the video in an mp4 file and then add it to drive or youtube where your students can have access to it.

More details on how to use this tool can be found on the following link:
https://www.youtube.com/watch?v=11pfvBNsXkA&list=WL&index=3&ab_channel=Flipped-ClassroomTutorials

Mindmapping (https://www.mindmapping.com/mind-map)

A Mind Map is an easy way to brainstorm thoughts organically without worrying about order and structure. It allows you to visually structure your ideas to help with analysis and recall. A Mind Map is a diagram for representing tasks, words, concepts, or items linked to and arranged around a central concept or subject using a non-linear graphical layout that allows the user to build an intuitive framework around a central concept. A Mind Map can turn a long list of monotonous information into a colorful, memorable and highly organized diagram that works in line with your brain's natural way of doing things. Mindmapping.com offers different software programs for Windows, Mac and also programs for online use. They have a mind mapping software review, where they have evaluated professional online applications and their mind mapping and export features. They have reviewed MindView Online, Mindomo Professional and MindMeister Pro as they seem to stand out, but also mention free applications like MindMup or Wisemapping (though it is mentioned that they are limited in functionality).

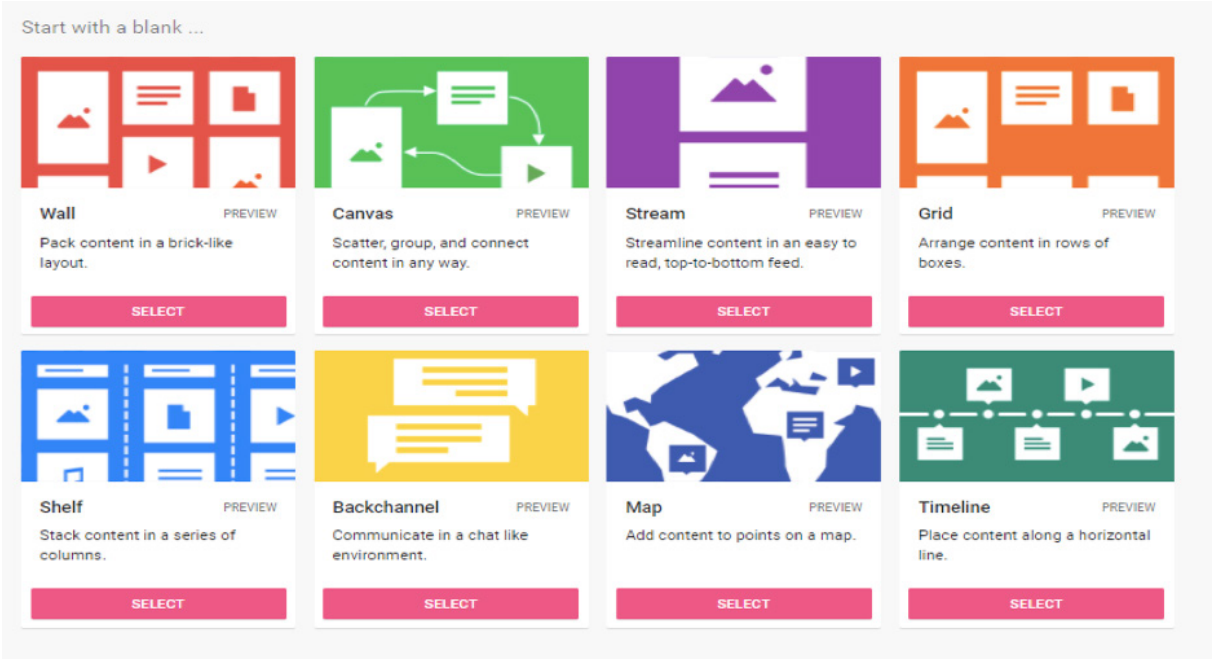
With all of these applications, creating the mind map is much easier than the pen and paper method, and they all allow users to create mind maps fairly easily. Online mind mapping software is often used for brainstorming, running meetings, and storyboarding written documents or presentations. And they mention the features important to these areas.

Both Mindomo and MindView Online are available in Desktop versions for PC and Mac, whereas MindMeister is a web / mobile application. Imagery is a core component to mind mapping and all 3 programs allow users to add a custom branch picture to their map with a few mouse clicks. The images can be all visually resized to look good in the maps and could be placed at any branch level.When it comes to clipart, the programs vary a great deal. Both MindMeister and Mindomo have very basic and somewhat limited clipart, forcing the user to have to provide mostly their own imagery. MindView Online provides more than 2000 high quality category driven clipart images which proved to be extremely useful when creating a mind map.

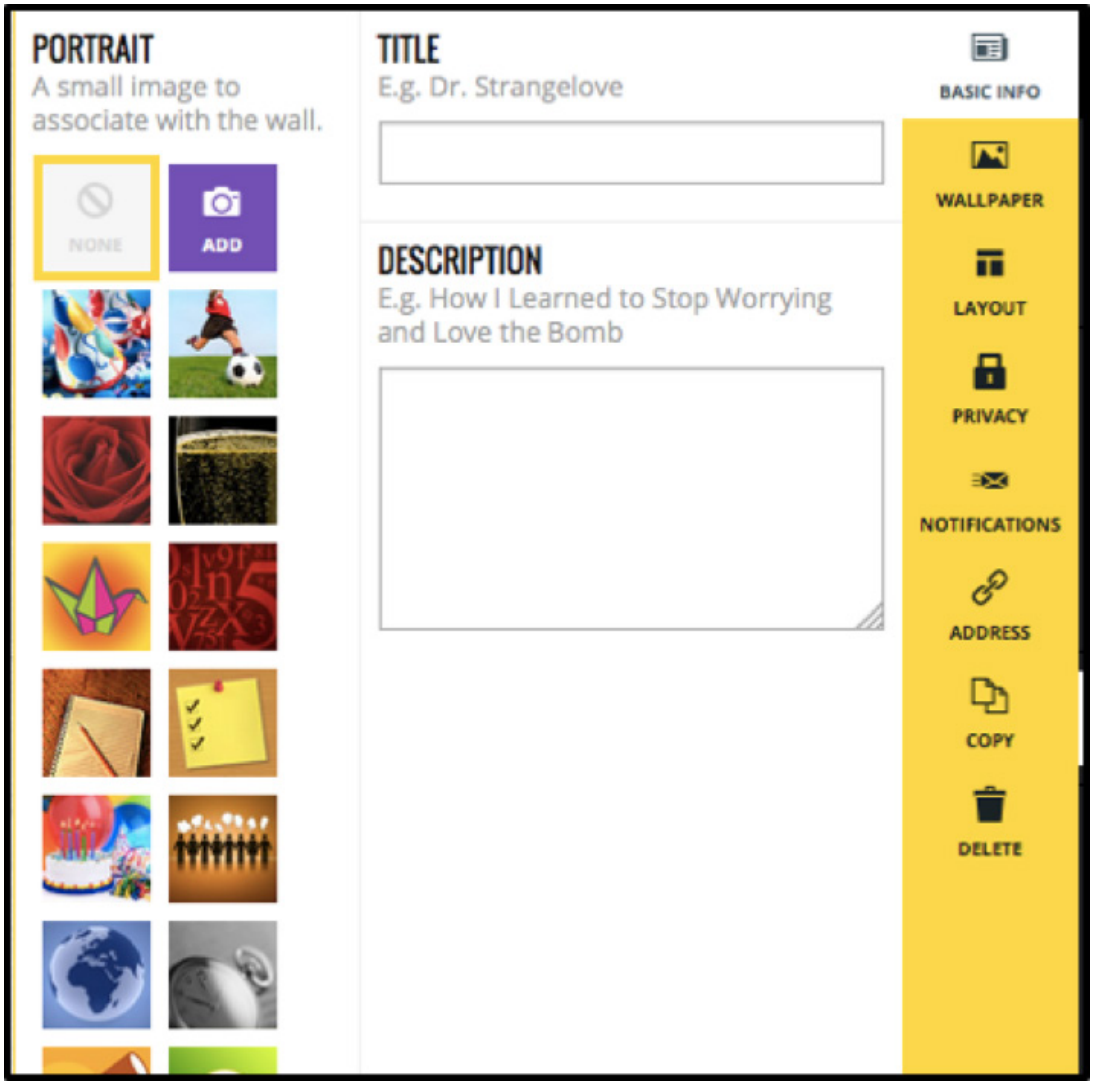
If you are interested in creating mind maps or getting more information on these 3 online mind mapping software programs you can find the links there and visit their websites.

Padlet (https://padlet.com/) is a platform in which users can create single or multiple walls that are able to house all the posts they want to share. Padlet offers a basic version and a pro version. It is free for its most basic plan, which limits users to three Padlets and caps file size uploads. Users can always use one of those three, then delete and replace it with a new one, but are not able to store more than three long-term. From videos and images to documents and audio, it is literally a blank slate. It's collaborative, too, allowing teachers to involve students, other teachers, and even parents and guardians. It is an interactive online bulletin board where students can post an array of different types of content and then see what classmates are doing in real-time. The users as moderators can choose who they share their content with. It can be public, open to all, or choose the option to place a password on the wall. Users can only allow invited members to use the wall, which is the ideal setup for education. Share the link and anyone invited can enter easily.

Once up and running, it's possible to post an update with your identity, or anonymously. First users need to create an account on Padlet, or via the iOS or Android app. Then users can make their first board to share using a link or QR code, or use other sharing options. To get started you need to click on 'Make a padlet', then you'll be given some options for how you want to format your padlet.



Once you choose your option (here we chose to create a wall Padlet) you will get a window where you can give your Padlet a title and write a more detailed description about what your bulletin board is going to be about. Then you have the option to customize the wallpaper (which is the background of your Padlet). You can choose the pictures that are available in Padlet or you can use one of your own.



Then you can choose the post attribution to be on or off. If your students have Padlet accounts and you want to have their names included and see who posts, you need to have this option turned on.

You can also turn on comments and reactions which gives students the ability to communicate with one another and react to each other's work. You can also choose the approval before something is posted, which gives the teacher the ability to see what a student wants to post before it is posted on the Padlet for the rest to see. When you are done setting up your Padlet just click 'Next' and then to get started click 'Start posting'. You have the option to go back and redo the chosen settings. Then you will get a window where you can write your title and description for the post and choose some of the different options for the types of posts that you can make. For example, you can just ask a question and students can write their answers, or students can upload files from their work done in different programs, they can add pictures or take a photo or videos with their camera, they can search the web or post links as well and there is also the draw option that allows users to draw. To share the padlet with the students, you can simply just copy the link and paste it where ever your communication is with them.

More details on how to use this digital tool can be found on the following link:
https://www.youtube.com/watch?v=x9IQVofS43I&ab_channel=PocketfulofPrimary

Sutori

Sutori (https://www.sutori.com/en/) is a collaborative instruction and presentation tool for the classroom. For all age groups, Sutori is a great partner for Social Studies, English, Language, Arts, STEM and PBL multimedia assignments. Sutori has a few pricings offers of which Sutori essential is free of charge and offers the basics: creating stories, adding text & images, sharing & collaborating, presentations mode (which displays stories full screen in a slideshow format.) and student management (which allows you to invite your students and manage their work in one place). When you first sign up for an account you will get access to the Sutori unlimited account which will allow you to see more options and you can then choose which plan you want to use. Sutori is a program that allows you to put together learning materials for students to present lessons to them, and you can also create templates that they can then use to complete work as well. What makes this program great is that users can embed almost any type of media into Sutori presentation and that means that you can embed assignments that you create in other programs in a Sutori lesson. So instead of making hyperdoc where you are pushing students out through hyperlinks to all the different programs, you can just embed all those different activities in a single Sutori lesson. Sutori uses the 4C's as a lens when they are creating their template, so the pre-created templates are designed to help students build skills like critical thinking, creativity, communication and collaboration. In this way, students are not just consuming technology but are actually creating and making things with it. You can use Sutori to put together learning resources for students, you can set them up to be actual lesson plan templates and can use Sutori for project-based learning.

Google Classroom

What is Google Classroom and how does it work?

In the era of digital education, it is very important to have virtual places for students, teachers, and people to work and develop. The Google Classroom service is a very good example in this regard. It is designed for those who are tired of using textbooks, whiteboards and notebooks, and in this way a lot of money is saved on textbooks and excess paper. The service was created on the principle that educational tools should be easy to use and accessible to everyone.

What is Google Classroom?

Google Classroom is a free, link-type application that can be used for educational purposes by both teachers and learners (students, students, trainees).

• Serves for file sharing, posting of tasks to be done and checking without the consumption of paper.

• It is also used as a way of communication - uploading messages to students and parents.

• Provides an opportunity to assess and track student progress.

It is based on Google Drive, a free cloud file sharing program. Allows the use of Google Documents, Google Forms, Google Calendar and many other Google services to create and store tasks, tests and more.

It's available from both a browser and Android (minimum version Android 4.4 KitKat required) and iOS (you need iOS11 or later). To use all the features of the application, install Google Docs, Sheets, Slides, Meet.

How to use Google Classroom as a teacher

Digital tools are becoming increasingly popular in the teaching profession, and distance learning has motivated many teachers to learn to work more actively with them.

Google Classroom is the most popular tool for managing assignments, assessments and homework and can be used in both online distance learning and face-to-face learning. Use it if you want to save time and make your life easier as a teacher.

What is Moodle and why do we use it in our work?

Moodle is a free open-source e-learning system written in PHP. Moodle is quickly gaining popularity with the variety of features it offers. The system is divided into courses, each course having students and teachers. Various materials are published in the course, there are forums in which students and teachers can participate. Tests, surveys, assignments, the answers of which are published online by students, lessons with questions at the end, chats, a grading system and all sorts of other facilities inherent in e-learning can be written. For more information about the system, visit its website: http://moodle.org/.

Moodle is an online course management system (Course Management System - CMS), specially developed for the creation of quality online courses by teachers. In this sense, E-learning systems are often also called learning management systems (Learning Management Systems - LMS) or virtual learning environments (Virtual Learning Environments - VLE).

Moodle features of interest to administrators are:

• Moodle works without modification on Unix, Linux, Windows, Mac OS X, Netware and any other OS that supports PHP.

• Moodle is designed as a set of modules and allows different elements to be flexibly added or removed at virtually all levels.

• Moodle is easily updated. It has an internal system for updating and restoring its own database.

• Moodle only needs one database and can be used in conjunction with other applications.

• Moodle uses a universal database that supports different types of data.

• Special attention is paid to security at all levels. Forms and data are checked for authenticity, cookies are encrypted, etc.

Moodle features of interest to educators:

• Moodle relies on the pedagogy of social constructivism, which includes interaction, active learning, critical reflection, etc.

• Moodle is suitable for 100% online courses.

• Moodle has a simple, efficient, cross-browser compatible web-interface.

• The list of courses contains a short description of each course on the server, giving the guest access to this information.

• Courses are broken down into categories. There is a mechanism to search for a course by keyword. Moodle can support thousands of courses.

• Most text elements (resources, forums, journals, etc.) can be edited using the integrated WYSIWYG HTML editor.

References and further reading:

https://www.youtube.com/watch?v=JxeJow3ujag

https://genial.ly/first-steps/

https://e-laboratorij.carnet.hr/genially/

https://kahoot.com/library/getting-started-guide/

https://www.youtube.com/watch?v=zBkVp8-CDeo https://content.bridgepointeducation.com/curriculum/file/87b91cee-06fe-44ac-ad7d-6d09f47dd0b9/1/Storybird_Quick-Start_Guide.pdf

https://www.youtube.com/watch?v=K1qS6avlnaE

https://www.ba-bamail.com/computers-and-internet/getting-to-know-ms-paint-2/

https://www.youtube.com/watch?v=hlnodEYZ71w

https://support.sou.edu/kb/articles/how-to-use-google-jamboard-for-remote-whiteboard

https://www.youtube.com/watch?v=5pLxxyXvSKw

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https://www.youtube.com/watch?v=Jo6lTr9yt4Y

https://learningapps.org/impressum.php

https://learningapps.org/LearningApps.pdf

https://verein.learningapps.org/

https://learningapps.org/tutorial.php

https://otl.du.edu/knowledgebase/introduction-to-wordwall/

https://wordwall.net/hr/features

https://linkthings.org/2021/08/23/reviewwordwall/

https://www.youtube.com/watch?v=4hlRcu36mgc&ab_channel=Charlie%27sLessons

https://www.youtube.com/watch?v=STslE2B3xy4&ab_channel=RussellStannard%28Teacher-TrainingVideos%29

https://www.youtube.com/watch?v=7clIANVFezk&ab_channel=RussellStannard%28Teacher-TrainingVideos29

https://www.youtube.com/watch?v=BUF__D90lkc&ab_channel=RussellStannard%28Teacher-TrainingVideos%29

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https://youtu.be/OQGJceRFHQ0

https://youtu.be/hyaMhBqGT9Q

https://youtu.be/cv8rd-q7kZs