

eTwinning “Science Project – iTec”

Students in group or individually will explore and create resources for learning Sciences (Mathemactis, Sciences, Physical Chemistry, Biology, ...). The resources built may be used by students in the class or others to learn the concepts being studied. The project follows the methodology iTec (Innovative Technologies for an Engaging Classroom) (<http://itec.eun.org>)

- **Disciplinas:** Biologia, Ciências Naturais, Educação ambiental, Física, Informática/TIC, Línguas Estrangeiras, Matemática/Geometria, Química, Transversal ao currículo.
- **Línguas:** EL - EN
- **Idade dos alunos:** 15 - 17
- **Ferramentas a utilizar:** Chat, Correio Electrónico, Diário do projecto, Espaço virtual eTwinning, Outro software (Powerpoint, vídeo, imagens e desenhos), Publicação na web.
- **Objetivos:**
 - The students create a learning resource related to STEM ;
 - Involve students in a deeper understanding of a particular programmatic concept/topic being studied in the disciplines of Sciences;
 - Learn to mobilize different knowledge/areas of

knowledge to the understanding and resolution of situations being studied. - Motivate students to study Mathematics, Sciences and Technology. - Develop key skills required for the 21st century: - Communication (in mother tongue and English); - Mathematic competence and basic competences in science and technology; - Digital skills; - Learning to learn; - Social and civic competences; - Sense of initiative and entrepreneurship; - Cultural awareness and expression. - Disclose to the school, including parents and guardians, the products built and the learning activities carried out by the students. - Constitute an archive of material that can serve as a working basis for future didactic units, to be used by school students.

- **Processo de trabalho:**

1. Teachers from partner schools choose and decide the iTEC learning scenario (related to STEM) to work with - <http://itec.eun.org>; 2. Presentation of the project to the class by the participating teacher(s) of the class. 3. Teachers and students of the partner schools use the TwinSpace to make their presentations, the presentation of the school and the surrounding area (PowerPoint, videos, padlet, liveshare,...). 4. Formation of teams and presentation/distribution of the themes to be developed by each group. Each team will work a scientific concept and produce a resource which illustrates it. 5. Students will be involved in oriented research for learning and will explore the contents (Widgets, Apps,...) 6. Throughout the process, the students perform short status reports regarding the progress of the work in the group (weekly recording in Team Up, blog, ...)
7. Throughout the process, the students share the theme and the develop of their work with the partner school teams and communicate/collaborate freely in stipulated channels (Facebook, TwinSpace, TitanPad, ...)
8. The students schematize the results of their research, including the information and data collected, and group them (Popplet, Lino, mind maps, and other online collaborative tools ...)
9. The students build their prototype or product in audiovisual or multimedia format (Glogster Edu, eBook, Issuu ...)
10. The students share their work with others (experts or teams of the partner schools) to receive feedback for a possible improvement
11. The students improve their work taking into account the feedback received and they complete

their final product. 12. Final reflection and dissemination of the works through the established means (facebook iTEC channel, TwinSpace ...) 13. Evaluation of the works developed. 14. Presentation of the work iTEC/etwinning to the school, including the parents of the students involved.

- **Resultados esperados:**

Construction of an audiovisual or multimedia product (Mainly presentations and other material on Twinspace or other media such as Glogster Edu, eBook, Issuu, video, ...) that allows its utilization by the class students and others for the learning of a particular programmatic concept/topic being studied in the disciplines of Mathematics and/or Sciences (Mathemactis, Sciences, Physical Chemistry, Biology, ...).

Atividades de Aprendizagem

Sonhar/Apresentar resumo da HA

Explorar/Pesquisar/Recolher
informação relevante

Mapear/organizar ideias e
estabelecer relações

Fazer/Criar o protótipo

Perguntar/Receber feedback
de especialistas

Refazer/ melhorar após
sugestões de especialistas

Mostrar/Divulgar produtos
e processo à comunidade



Refletir (gravar/publicar/partilhar
reflexões)



Colaboração ad hoc (partilhar/comunicar
livremente com outras escolas iTEC)