

Inquiry Based Science & English: Animals, Water and Sound project.



[Carrying out an experiment by Carol de Britos]

Objectius

The main objectives of this project are:

- To learn the different steps of the Scientific Method.
- To be accurate when planning scientific experiments.
- To learn vocabulary related to sound.
- To use expressions when sharing ideas and opinions.
- To gain autonomy revising and assessing their own tasks.

Descripció de la proposta

This project is divided into 6 main parts. First of all, we ask the students to share their previous knowledge by creating a map of concepts. This step will be useful to decide which topic of sound we want to investigate. Once we have decided the topic, students will have to write good scientific questions using the scaffolding given by the teacher. After that, students need to write a hypothesis to their question. The next step is designing an experiment to prove if their hypothesis is correct, introducing some variables. Once the experiment is planned, students need to carry it out and record the results. Finally, they have to draw and share conclusions to ensure all students comprehension.

Aspectes didàctics i metodològics

During this project, students are grouped into small groups of 4-5 members. There are also moments when the teacher is giving some advice or guides to all the students. In the final step, each team is sharing their conclusions with the whole class. It is recommended to use a big classroom or even an open space to implement some of the steps mentioned before, such as carrying out the experiment. In order to encourage our students' autonomy and self-

assessment, we give them some resources to assess different parts of the project and complete them with all the missing information and correct structure. One of these tools is the checklist.

Recursos emprats

In the first step, wrapping paper, post-its and stickers are needed. After this step, students use their computer to complete all the parts of the project. First, teachers create a Presentation in Google Drive which is shared with each small team. The students use it as a guide to follow the steps and to write there their question, hypothesis, experiment, results and conclusions. There are also some checklists and guides to help them to assess and complete their tasks. In order to carry out the experiments, our students are asked to bring materials from their house. There are explanations and some examples of this material attached.

Continguts, competències i processos que es treballen de forma destacada

During this project, students improve different skills related to *Coneixement i interacció amb el món físic*, *Comunicació lingüística i audiovisual* and *Autonomia i iniciativa personal*.

Our students learn to investigate using the scientific method while they practise speaking, listening, writing and reading in English.

Documents adjunts

For teachers:

- Teachers guide
- Steps explanation

[-video](#)

- Teacher tables
- Poster of the experience

For students:

- Presentation small groups
- Hypothesis checklist
- Procedure checklist.

Autoria

This project was designed and carried out by the Science and English teachers Carol de Britos and Zoe Araus, in Escola Virolai during the school year 2016-17 with the collaboration of Mireia Brunet and Laura Hernández from the graduate degree of Primary Education at the Universitat Autònoma de Barcelona.

