

DIGITAL FINAL PROJECT

INVENTORS AND INVENTIONS
SOCIAL SCIENCE
4th GRADE OF PRIMARY
EDUCATION



CRISTINA ALGABA MARTINEZ
CARMEN BLANCO
MARGARITA COLLAR
TERESA GIL

INTRODUCTION

In July 2017 four eager teachers from the “Comunidad de Madrid” attended the summer course “Clil for Primary” at the University of Chichester.

During the course we decided to create a blog where we could upload CLIL activities and useful resources not only for us but for all the teacher who are working with this methodology. You can visit our blog [HERE](#).

As part of the Digital Final Project every member of the group has developed different multimedia resources related to the topic “INVENTORS & INVENTIONS”

BASIC INFORMATION

LEVEL: 4th grade of Primary Education.

SUBJECT: Social Science

TOPIC: Inventors & Inventions.

ACTIVITIES DONE BY EACH MEMBER OF THE GROUP

Cristina A.

I am Cristina Algaba. I am a teacher who has been working in the bilingual project for the last 9 years at Carmen Conde School in Leganes.

Justification: The activities I have elaborated for this final project are based on the curriculum for Madrid Primary Schools, year 4. The following activities follows the CLIL methodology and are realistic for the level of my students suggesting hands on activities to improve their thinking process.

Learning intention:

To learn to identify the 3 classes of levers.

To learn to describe how is class of lever work.

To learn to create a simple machine using levers.

According to CLIL Methodology, the first step of a lesson is a tuning activity.

TUNING IN:

The teacher divides the class into groups of four. Using a PPT, s/he asks students to name the object or to say something related to them (e.g. I play with my friends on the playground) for every valid answer, the teacher will give them a piece of a puzzle.

When they get the 4 pieces, they will try to say what they know about the person shown (Archimedes).

Click on the resources to download:

[PUZZLE](#)

[PICTURES](#)

If you want to create your own jigsaw puzzle visit this page:
<http://www.jigsawplanet.com/?rc=createpuzzle>

In order to achieve my teaching intention of the lesson plan we are going to reflect on the pictures shown on the previous activity.

REFLECTION:

The whole group shares their ideas about what all the objects have in common: They are simple machines, they are all levers...

After this activity we all have get into a common ground of the topic we are going to work on: "Levers".

FINDING OUT:

Running dictation: The class is divided into small groups. The aim is for one of the students in each group to walk (or run!) to read the passage on the wall. They remember some of the passage and walk (or run!) back to their partners. They quietly dictate what they remembered to their partners, who one of them writes it down. They then swap roles. Over several turns, they will build the whole passage.

The winning group is the team that finishes first - although you need to check for mistakes. If there are mistakes, they must keep walking to check!

Click on the resources to download:

[RUNNING DICTATION](#)

SORTING OUT:

In small groups they have to create their own simple machines using one class of levers learned. We will give them elements from the class to create their own simple machines: a fulcrum, a load and a ruler. Students will explain their productions to the rest of the class.

A compilation of information about Archimedes and his inventions can be seen in this Prezi that I have created.

Click on the resource to download:

[PREZI](#)

Carmen B.

I am Carmen Blanco. I work as a bilingual teacher in a public school of Community of Madrid. In this blog I have adapted a story from the myth of **Icarus**. I have always enjoyed stories, reading and telling them, and I have been using them from the very beginning of my teaching experience. Children like stories.

Therefore, we are going to take **ICARUS** as a point of start, and develop from it the 4Cs. My part is **COGNITION**. Our aim in making this blog is offering resources, ideas, suggestions..., and some activities in multimedia in order to develop a CLIL unit based around the 4Cs, one of the main principles of CLIL methodology.

As the unit is about **Inventors and Inventions**, we are going to give some examples of activities that can be used. We are not going to develop a lesson plan, only offer suggestions, ideas, and so on.

As **learning intentions** we can put something like this:

- To learn that there are things that makes our lives easier and funnier.
- To learn about the people who created this things.

Bearing in mind the **Icarus'** story, we can prepare easily activities for showing understanding, and for talking about creativity: how they had a problem and they tried to solve it. Also, they can debate in groups about:

-Do you think that using the wings was a good solution? Why (why yes/why not)?

-What would you do if you were **Icarus?**

-What would you do if you were **Daedalus?**

They can draw o explain their solutions, there are not a right one. When they finish, we can make a display with all the answers and drawings.

I have designed an activity in **power point** about this topic, I put the link at the end.

As a **tuning in**, we ask them a question:

What would happen if we did not have televisions?

They can work in groups and share their answers. From here we can **reflect** about how **inventions** make our life easier. There are people who try to make things that make our life easier and funnier: **inventors**. In this way, we are **scaffolding** them through the stages.

Another activity, in the **finding out** stage, could be asking them to think about famous **inventions**, things that they have at home and are useful, and, if they can, some **inventors**. We have here a power point with the activities that can be used.

1st. We ask them to think and name as many **inventions** as possible.

2nd. They talk in pairs about **inventions** and try to recall **inventors**.

3rd. We talk about **inventions** in general, and ask them if they know any Spanish **invention**. Also if they can tell any **inventor**. We share this information with the whole class

4th. There is a slide con names and pictures of some **inventions**, they read them and we talk about them.

5th. Then we show them another slide with the names of these **inventions** and they should match them with **inventors**. All together **reflect** on women as **inventors**.

You can find this power point in this link: [click here](#)

As a **sorting out**, they have to create something. In order to foster creativity, we can present a problem, and ask them to solve it. For instance:

- **You have to go to a football/volleyball/basketball match and your family car does not work. What would you do?**

I hope that you can find useful the blog. I have enjoyed working on it.

Margarita C.

COMMUNICATIVE CLIL ACTIVITY

QUIZ: WHAT DID THEY INVENT?

INTRODUCTION

This activity is based on the format of most of the quiz shows. It can be used to review contextualized vocabulary about name of inventors and their inventions. It can be used from year 4 to 6 of Primary Education.

LEARNING INTENTION

The students will become familiar with some of the most important inventors and their inventions and we also want them to be aware of the fact that most inventions make our lives easier.

METHODOLOGY

In developing a CLIL approach the activity connects four dimensions (4 Cs): content, cognition, communication and culture.

Specifically, this communicative activity focuses on language interaction, using language to learn, express ideas and it also enhances active learning, involves students in doing things and thinking about the things they are doing.

INSTRUCTIONS

The teacher will play the role of the quiz show host, and the students, will answer one after the other. As the students answer the invention according to the name of the inventor, you will say "correct" or "incorrect" accordingly.

This activity allows for all sorts of variations as regards scoring, timing, frequency and items to be evaluated.

The winner is the student with the highest number of correct answers.

DIGITAL TOOLS

Random name/word selector.

[Random name selectors online. CLICK HERE](#)

[Key. CLICK HERE](#)

There are different random name generators available:

1. SMART notebook – there is a generator tool called the “random word chooser” .
2. Internet based options – a variety of web based, or downloadable tools
3. iPad based options – apps which allow you to select students at random, some of these with options for recording formative assessment.

WEBLIOGRAPHY

<http://www.classtools.net/>

<https://languageteachersupport.com>

<https://ictacrossthecurriculum.wordpress.com>

<http://www.flippity.net/RandomNamePicker.asp>

Teresa G.

I am Teresa Gil. I work in CC Nueva Castilla in Madrid. I have been working in this school for 33 years and this is our second of year as a bilingual school.

My part in this project is “content “ and according to language of history it must include: teacher’s explanation, written text, biographies [CLICK HERE](#) (either written or in audio) etc, and it also must include a variety of language functions: past simple, verbs to show time passing , time adverbs of phrases and organizing words as *first(ly)* [CLICK HERE](#). The content must describe and inform, it also has to explain, for example, how the invention happened [CLICK HERE](#), it has to persuade as well in order that inventions may be an appealing subject for children.

So, previously the lesson, we, as teachers, have to plan effective Clil lessons so what we teach (input) is comprehensible and what the learners produce (output) is possible. Thus we need to adapt material in the CLIL classroom. The layout of the test must be clear, using a title, subheadings, highlighted keywords, and explanations in brackets, cause-effect organizers. We can also add word banks [CLICK HERE](#). All of this will help us to reach our global goal that is EVERYONE CAN BE AN INVENTOR.

For further content [CLICK HERE](#)

WEBLIOGRAPHY

All the images used are free from copyright.

The pictures have been taking from the following pages:

<https://openclipart.org/>

www.flickr.com

(Archimedes’ photo) <http://classroomclipart.com/>

<http://www.jigsawplanet.com/?rc=createpuzzle>