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INTELLECTUAL OUTPUT 03

SCIENTIFIC CREATIVITY

4 Creativities Project
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INTRODUCTION

The aim of FCREATIVITIES project is to improve the teachers' abilities to generate a creative education, leading to the creation of students who are able to think, analyze and solve daily problems. We **will develop new scientific skills** and competencies through the incorporation of new proposals, spaces, methodologies, and resources that will increase the students' ability, creativity and the skills for innovation. These activities will be used **with 10 to 12 years old students**, promoting their motivation and creativity. The activities will be composed for **six working activities** which will contain the different activities that we will elaborate with our students.

With the **scientific creativity** promotion we will improve the thinking capacity of our students and the ability to go from basic notions to more complex ones; they will learn to resolve problems in a real situation; they will practice the construction of their own learning; they will train their **deductive capacity** and this will take them to create strategies and solutions of their own and they will get better with their physical environment and their appreciation from different spaces, shapes, parts and the group in general. Scientific creativity will take place inside the classroom through scientific experiments workshops.

All the **experiments** will be presented in an experiment manual. The format will be a paper card, it will contain all the material that we will need to accomplish the experiment, how you do it, **how it is related to everyday life** and other relevant details.



Title of the experiment

"Come see our Solar System"



Description and application in everyday life

*Describe the experiment and its **practical application** in everyday life ...*

Curiosity, coupled with scientific questioning and reasoning are key features of how scientists uncover the mysteries of the universe and its existence.

Understanding the planets and tiny bodies that make up our solar system aids scientists in answering questions regarding its formation, how it came to be so diverse, how life



developed on Earth and presumably elsewhere in the solar system, and what features of the solar system lead to life's origins.

People can obtain a better understanding of the fragility of Earth by learning about the solar system. Knowing why your planet is unique and how you can protect it helps to maintain the world safe and healthy for future generations.

Students develop critical thinking abilities, as well as strong analytical, research, and communication skills, through extensive research. These skills are highly sought-after and extremely valuable.

As a result of their activities, all students should develop an understanding of:

- Structure of the earth system
- Earth's history
- Earth in the solar system



Aims

Please list the objectives you want to achieve...

1. Students will research and learn about the planets as they create a tour to visit a planet, or planets, in our solar system.
2. Recognise and appreciate how to analyse different information sources.
3. Use technology, such as the Internet, to create and publish writing, as well as to communicate and collaborate with others.
4. Produce clear and cohesive writing that is appropriate for the task, purpose, and audience in terms of development, organization, and style.



Steps we must follow

Detailed description of the different steps to carry out the experiment...

- Show your students different images of planets.
- Resource found on [Pics4Learning](#) can be a good starting point to show students array of planets and let each choose a different basis for their research. Discuss basic facts about each one.



- Inform students they have been chosen to create a promotional piece for a visit to one or more of the planets in our solar system.

On this space tour, the students will have to answer the following questions about their planet:

- What is the planet's distance from the sun?
- What is the diameter of the planet?
- Does the planet have any moons? If so, name them.
- What is the atmosphere like on this planet?
- Are there any unusual features about this planet?

Students can use books and online resources to find answer to questions above and any additional ones that may arise.

- After the students have finished their study, they can start working on their planetary tour. Let students know they'll be giving a presentation on their tour and what tourists may expect to see.
- Work together as a class to come up with ideas for how students might share their knowledge and entice others to take a planetary tour. Share the tools that students have access to in your classroom, such as iMovie or PowerPoint, as they come up with ideas for movies and presentations.
- Students can then present their completed planetary tours to the class or during a school assembly.

Resources: Some good websites and videos to get cognitive processes in motion and allow students to become engaged in the activity.

<https://pds.nasa.gov/planets/welcome.htm>

<https://www.youtube.com/watch?v=libKVRa01L8&t=21s>



Materials needed

In order the teacher to be prepared for the proper implementation make a list of all needed materials and resources needed.

- *Resources for students to begin brainstorming what planet they want to base their project on (such as the link in resource section above).*
- *Computers/Chromebooks for student research and possible presentation method of research completed.*
- *Posters, paper, pens etc.- if students choose to illustrate their research findings on a poster and present using this method.*