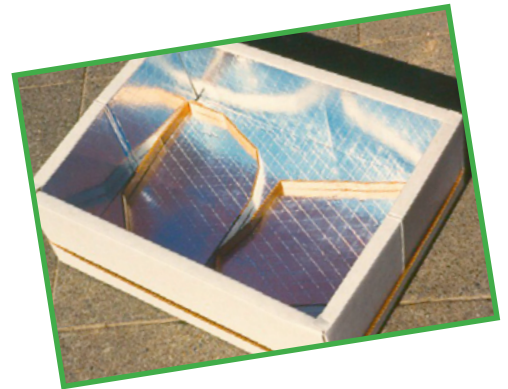


2. Nursery Education and 1. Primary Education

SUSTAINABLE MACHINERY WORKSHOP: SUN OVEN



OBJECTIVES:

- Understanding the sun as a natural, limitless and non-polluting source of energy.
- Looking further into cause and effect by making a sun oven.

SKILLS DEVELOPED:

- Scientific, technological and health culture
- Learn to learn
- Linguistic communication

PROJECT DEVELOPMENT:

At this age, workshops are highly effective for studying syllabus subjects. They are particularly appropriate for working on the following areas:

Observation: Pupils must take the necessary time to observe calmly and with attention.

Experimentation: Touching, handling and, in general, helping to take in concepts.

Investigation: Under teachers' guidance, pupils' interest is awakened, they make suggestions, get involved and ask questions.

Conclusions: Pupils help to reach conclusions. They carry out experiments more than once: trial and error, cause and effect. These are exercises for drawing conclusions and pupils confirm them with their knowledge.

Workshops are like ecosystems: extremely helpful for studying. In order for pupils to make their own way, cooperate with other pupils, share their knowledge, look deeper into complex areas of knowledge and work on projects, it is worth finding out about new means of doing so: they have a positive impact on the learning process.



The workshop we put forward in this exercise is connected with natural science. It can be divided into four stages:

1. WHAT DO THE PUPILS KNOW?

It is important to find out what the pupils know. That is why we ask pupils to bring photos, drawings and pictures of the sun from home. These are good starting points to talk about the sun as a source of life and energy.



2. DRAWING A MURAL MAP

We put the photos, pictures and drawings brought from home on the board and write a sentence or idea beside each one. Pupils then organise the information. Finally, we give each sentence/idea a title and, in that way, make a mural map of the sun.

3. SUN OVEN

Before starting to make a sun oven, we emphasise two ideas: they offer advantages in environmental terms and are different from other, non-renewable sources of energy.

And we put what we have seen into practice on a sunny day. We make the sun ovens dividing the class into four or five groups. Each pupil has a task: presenters, to explain what is happening; secretaries, who write or draw about the process; manufacturers, who make the energy ovens; and, lastly, observers, who mark the changes which they see in a table.

We visit the following websites:
<http://www.experiencia.com/cocinando-con-un-horno-solar/>
<http://science-at-home.org/cooking-with-solar/>

4. MACHINE NOTEBOOK

We record all the experiments we carry out throughout the year in a notebook.



Sources:

Ciencia 0-3 Laboratorios de ciencias en la escuela infantil - Silvia Vega Timoneda, Editoria GRAÓ ISBN: 84-7827-440-5

Los talleres en educación infantil.Espacios de crecimiento - Battista Quinto Borghi, Editoria GRAÓ ISBN: 84-7827-412-X

Basura y reciclaje. Colección Biblioteca de los experimentos - Rosie Harlow y Sally Morgan, Editorial Everest, 1996 ISBN: 84-241-1965-784-241-1989-4