

Obligatory Secondary Education

MILL



MATERIALS:

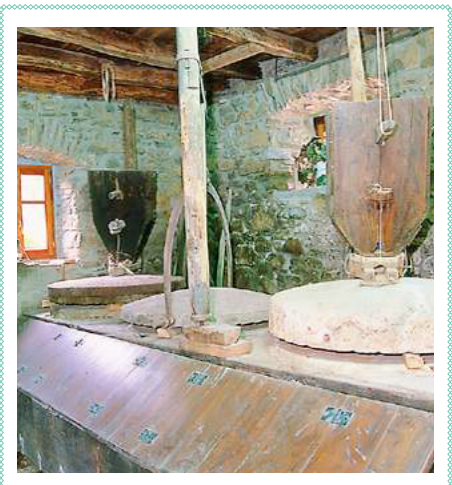
A video, Zamakola Mill:
<https://www.youtube.com/watch?v=xirHASqm89o>

OBJECTIVES:

- Researching and showing clean, renewable models for obtaining energy
- Faced with global warming, researching a sustainable exploitation of nature
- Finding out about cultural heritage and explaining what you have learned
- Finding out about a sustainable consumption model in Tokyo and drawing conclusions

SKILLS DEVELOPED:

- Scientific, technological and health culture
- Learn to learn
- Linguistic communication
- Processing information and digital competence
- Social and citizen-related



PROJECT DEVELOPMENT

After visiting a watermill we suggest carrying out a multi-discipline initiative based on the information obtained there,

We will develop this project in four stages:

1. DATA GATHERING

- **Technology:**
Energy transformation, kinetic potential energy, technological operations (hydraulic wheel, worm drive, transmission, etc).
- **Drawing:**
General sketch (stream, irrigation canal, mill, etc).
- **Language:**
Specific mill vocabulary and words connected with machinery, tools and farming



- **Society:**
- The old agricultural world; economy and related customs; local cooperative work, celebrations...
- The importance and use of cereals, customs
- **Nature:**
Sustainable exploitation of nature, obtaining clean, renewable energy, making good use of water, etc.
- **Mathematics:**
Unit and counting systems, millers' counting system, etc.

2. PROYECT

At school with work on data area by area, paying attention to each one.

4. GENERAL PROJECT

In conclusion, we propose to start work on the overall project after examining the mill by areas and then bringing all the areas together. This can be done making a dynamic model or with a guided tour of the exhibition.

SOURCE: A multi-disciplinary project carried out by a group of teachers from Arratia Secondary School.

3. PRODUCT MANUFACTURE

We also work area by area here. We will produce one thing for each area:

- **Technology:**
A model of the mill we visit.
- **Drawing:**
Plans and details of the mill we visit.
- **Language:**
A poster explaining the main features in writing or graphically.
- **Society:**
A report about the main conclusions drawn in PPT format (Prezi can be used alternatively).
- **Mathematics:**
Comparing energy obtained from fossil fuel and energy obtained using mills: conclusions, options, etc. Try to examine equivalence between units.