

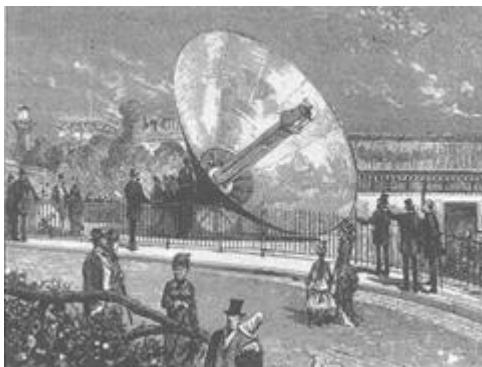
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3. Please describe the device was built from Mouchot in order to solve his everyday needs for warm water.

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4. Please describe the device built from Mouchot for which he won the first prize in the 1878 Paris exhibition. You have at your disposal the image from the following website from which you can get more information:

<http://landartgenerator.org/blagi/archives/2004>



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5. Please discuss in your group about the advancement of science and the social, cultural and economic circumstances that prevail at that time. Please write down the view of your group.

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Activity 2

In this activity you are invited to experiment on the absorption of solar radiation. Let us try, to implement an experiment similar to that Mouchot implemented in his research. Because we are indoors, instead of solar radiation we will use the radiation of an electric bulb.

Materials:

- A heat sensor with a glass cover and a digital thermometer or, if there is not any, we can use a metallic thermometer.
- A radiation collector in the form of concave mirror made of aluminum.
- An electric bulb.

Experimental procedure:

- a) Please place the tip of the thermometer at the focus of the concave mirror.
- b) Place the electric bulb at 20 cm distance from the tip of the thermometer.
- c) Set the electric bulb to radiate for 10 minutes.
- d) Record temperature changes in Table 1.



Table 1

Take the temperature every 2 minutes

Time (min)	Temperature (in ° C)
0	
2	
4	
6	
8	
10	

1. Please explain:

- a. the raise of the temperature at the focal point.
- b. the placement of the tip of the thermometer at the focal point of the concave mirror.

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2. Make a graph: temperature against time and from that find the raise of the temperature for the time interval 6th min 8th min.

3. Based on the images below (these are solar ovens of modern technology)

1. Please discuss in your group the difference between a renewable source of energy and a conventional one and indicate two sources of energy from each category.

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2. Please argue in your group about the reasons for which the future of our society depends on the renewable energy sources and not on the conventional ones. Please write a text of 1000 characters to support this statement referring to three such reasons.

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Activity 5

Using the list of ideas that describe the characteristics of science and the ways it develops, try to locate and write these ideas in the story you heard and the activities of lesson. These ideas that scientists call Nature of Science (Nature Of Science-NOS-) are:

Characteristics of Nature of Science (NOS)

1. Science demands and relies on empirical evidence
2. Knowledge production in science includes many common features and shared habits of mind.
3. Scientific knowledge is tentative but durable.

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