

SOLAR OVENS AND COOKERS, POWER DIDACTIC TOOL FOR GREEN BUILDING

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Abstract:

Renewable energies and energy efficiency are two important sections of ecological building. Bioclimatic design of buildings can be considered the best use of solar energy. Green building is a very important factor in combating climate change.

Make and use ovens and solar cookers allow teaching many technical concepts: Design, Orientation, Collection of sunlight, Conservation of heat, Isolation, Thermal inertia, Movement of the sun, Solar azimuth and altitude, Seasons of the year, Greenhouse effect, Transformation of light into heat, Energy economy...

Students learn from the teacher's explanations, observing how the food boils, touching the hot pot and feeling the high temperature, smelling the aroma of cooked food and finally tasting the food. We can sum it up as "learning from the five senses". In this way, the most exciting and successful didactic experiences are achieved.

This teaching tool is very flexible, it can be applied to many areas and it is possible to work at all levels of education. It also enables people without previous studies to help their communities reduce their energy dependence on fuel wood or conventional fuels for cooking or heating their homes, to move towards sustainable development, use renewable energy, reduce deforestation and increase energy independence.

This work is based on more than 20 years of teaching experience using solar ovens and cookers.

Keywords:

Solar didactics, Green building, Climate change, Energy economy, Sustainable development