

Service Learning Projects

Connecting Service Learning to Curriculum

Project No. 11

1. **Class** 5
2. **Subject area** General Knowledge/ Science
3. **Topic** Renewable Energy Resources (Solar Energy)
4. **Name of the project** Get Smart
5. **Name of the teacher/facilitator and School** Asma Yousaf & Hina Lazarus
Sacred Heart Cathedral High School (English Medium),
Lawrence Road, Lahore.

6. **Objectives of the project**

The objective of the project is to create awareness in people that they can find alternative cheaper sources of light and energy e.g. renewable energy resources.

7. **Learning component of the project**

- The learning group will attain a deeper knowledge about using renewable energy resources.
- They will be utilizing their cognitive, speaking and writing skills.
- They will develop confidence and leadership qualities.
- The students will be engaged in group decision making and problem solving.

7.1 **Approximate number of hours to be spent on learning by each student**

6 hours

8. **Service component of the project**

Providing awareness and suggestions to the community to improve their conditions in the situation of energy crisis.

8.1 **Approximate number of hours to be spent on providing services by each student**

15 hours

9. **Key messages of the project**

- Necessity is the mother of invention.



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- The community has natural resources at its disposal to utilize and to overcome the energy crisis in the country.
- Save electricity so that we would not face shortage of electricity in future.

10. Outcomes of the project

- The target audience will become aware of different and cheaper ways of generating light and energy.
- The students will learn that they can help themselves instead of waiting for others to solve problems their problems.
- The students will communicate the knowledge gained by them to their communities.

11. Project cycle

11.1 Preparation stage

- The teacher/facilitator will give a lecture to the students on the renewable resources so as to make the students acquainted with the topic. The students will be shown video documentaries. The students will be taught that how solar energy can be converted into electricity. They will be shown that how Photovoltaic cells turn solar energy into heat. Hence, a PV cell can change solar energy into electricity which can be used as a resource of light.
- Brainstorming session will be conducted with the students. They will explore the ways of using solar energy as a substitute for electricity.
- The students will participate in oral and written communication and activities which will demonstrate their knowledge of energy and global warming issues. The students will learn about solar energy by reading and completing worksheets based on solar and wind energy.
- A team of ten students with mixed abilities will be selected for the project. They will be divided into two pairs to carry out different responsibilities.

11.2 Action Stage

- The students will conduct interviews, conduct workshops (explaining how Photovoltaic cells turn solar heat into energy; a PV cell can change solar energy into electricity and this can produce light), make questionnaires, prepare results and propose solutions to convert solar and wind



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resources into energy. They will also make a documentary for the target audience about successful ways of using solar panels.

- Each group will conduct the research by utilizing the scientific methods. They will make hypothesis through data collection and analysis the data. They will use the media such as newspaper, brochures or conduct tutorials in the school to inform their community about their findings.
- The students will teach lower classes and their community members about solar energy as substitute for electricity.

12.3 Reflection stage

The students will share their experience of working on the project with their teacher and class fellows. They will share that how they convinced their community members to use substitute of electricity in case of crisis.

12.4 Recognition and celebration

A ceremony will be arranged to celebrate the success of the project. The outstanding students will be awarded with shield and certificates to encourage them. The pictures of the project will be displayed on the notice board. The report of the project will be published in newspapers and magazines.



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