

PBL for Class VIII

Theme: Energy Conservation

General instructions:

1. Read the given set of instructions carefully.
2. You must file all the given tasks in a school project notebook.
3. First page of the project file should have the following details:



Name of the Student:
Class & Section :
Inter-disciplinary Project Theme :

Subject	Remarks to be filled by teacher	Teacher's signature
Task 1		
Task 2		
Task 3		
Task 4		
Task 5		
Task 6		
Task 7		

Energy conservation refers to the reducing of **energy** consumption through using less of an **energy** service. Energy conservation is one of the words you are hearing more and more. Unfortunately, a lot of the places you will hear it will be in ads marketing products or lifestyle habits that may have nothing to do with actual energy conservation .Without energy conservation, the world will deplete its natural resources. The goal with energy conservation techniques is reduce demand, protect and replenish supplies, develop and use **alternative energy sources**.

Few points for energy conservation are :

- Install CFL Lights**
- Use Maximum Daylight**
- Use Energy Efficient Appliances**
- Drive Less, Walk More and Carpooling**
- Switch Off Appliances when Not in Use**
- Plant Shady Landscaping**



Task1:

- Make a collage that should express the message and your feelings about the theme “Energy Conservation”. Cut pictures ,words, phrases from old magazines and newspaper to illustrate the theme.
- Find some ways to conserve energy and write a letter to the Prime Minister of India suggesting him your ways to conserve energy, which should be implemented in a country like India.

Task 2 :

Q1. The 30 families in a particular township “Krishna Enclave” saved more electricity units in the month of March as compared to month of February. Make the frequency distribution table with intervals 0-10, 10-20, so on .

31, 33, 65, 58, 95, 35, 64, 74, 23, 33, 29, 44, 54, 52, 20, 91, 40, 20, 63, 56, 87, 77, 74, 33, 23, 31, 65, 58, 98, 23

Draw histogram .Find the total electricity units saved . Find the of units saved upto two places of decimal.



square root

household

Q2. Represent the following data of consumption of energy in appliances in a pie chart

Appliances	% of consumption
Home electronics	15%
Lighting	10%
Water heating	15%
A .C	20%
Laundry appliances	10%
Kitchen appliances	25%
Other appliances	5%

Give few points to save electric consumption

Task 3:

LO: To make them aware about energy conservation programs in India.

Let's Discover:

- The year of Energy Conservation Act.
- Main objectives of this act.
- Highlighted policies of this act.
- Implications of this act.
- Mark the state where this act is not applicable. (in India political map)
- How can you help your country/ mother earth in this project.

Task 4:



1. Collect the information based on Energy consumption and consumption of fuels and

Make a report choosing any two metro cities. The report should highlight :-

=> Causes of excess consumption of energy and fuels.

=> Initiatives you would take to reduce and conserve the Energy resources.

2 .As a head of “Energy Saver Company” Prepare a project/plan by following the hints given below :-

- Suitable name of the company .
- Motto of the company.
- Strategies to reduce the usage of non-renewable resources of energy; choosing an alternative source of energy .
- Marketing for your products .
- Spreading awareness to whole country and then to world.
- Draw your dream as a poster to make your world of saving energy hub.

Task 5 : यदि आपको विद्यालय में ऊर्जा संरक्षण विभाग का अध्यक्ष बना दिया जाए तो आप व्यर्थ हो रही ऊर्जा को बचाने के लिए क्या कदम उठाएँगी, विस्तारपूर्वक बताइए ।

या

आपके घर तथा विद्यालय में किन-किन कार्यों में ऊर्जा का प्रयोग होता है , तथा कुछ कार्यों में व्यर्थ हो रही ऊर्जा को किस प्रकार बचा सकते हैं?

Task 6 : ਅੱਜ-ਕੱਲ੍ਹ ਗਰਮੀ ਦੇ ਮੌਸਮ ਵਿੱਚ ਪਾਣੀ ਦੀ ਕਮੀ ਕਾਰਨ ਆਮ ਜਨ ਜੀਵਨ ਅਤੇ ‘ਜੀਵ-ਜੰਤੂਆਂ’ ’ਤੇ ਕਾਫੀ ਮਾੜਾ ਪ੍ਰਭਾਵ ਪੈ ਰਿਹਾ ਹੈ ਇਸ ਤੋਂ ਨਿਜਾਤ ਪਾਉਣ ਲਈ ਤੁਸੀਂ ਕੀ ਉਪਰਾਲੇ ਕਰੋਗੇ ਵਿਸਥਾਰਪੂਰਵਕ ਜਾਣਕਾਰੀ ਦਿਓ ਅਤੇ ਕੋਲਾਜ ਤਿਆਰ ਕਰੋ।

Task 7:



- Create a database on the “Energy Conservation”.
- Make a list of at least 5 to 7 energy saver products and choose suitable data types.
- Calculate the total of the “% of consumption field”
- Take the hard copy (printout-colored or black & white) of the report of this database and paste in your project file.
- You can add more fields as per your requirement.

S.no	Products/Appliances	% of consumption	Country Name

Make SELF ASSESSMENT SHEET (on last page of project)

Note: Fill in the Self Assessment column only by marking your performance on a scale of 1-5 (for each given criterion)

S.No	Criterion for Assessment	Self Assessment	Assessment by Teacher
1	How neatly has the project been presented? Is the sequence meaningful? Are all the pictures and images labeled?.		
2	Is the work creative and innovative?		
3	Is the content/information correct and enough?		
4	If the project was well researched with clearly and correctly specified sources?		
5	Is the project being submitted timely? (with each delayed		