

Our Energy Resources Project – Advice for Teachers

Selection of energy resources

A wide range of energy resources has been listed. Some are classified as renewable and others are classified as non-renewable. Teachers need to bear in mind that it is easier to access relevant information on some energy resources than on others. For example, some are outlined in quite considerable detail on the STELR website; others are not. For other energy resources, the available information may be less accessible in both language and content. This needs to be taken into account when assessing the student projects.

Teaching and learning strategy

1 This project is based on the jigsaw approach to learning. Students will become the class experts on one particular energy resource, and then teach the rest of the class. Therefore teachers are strongly advised to insist that no two groups in the class investigate the same energy resource.

2 It is recommended that student groups contain no more than four students, to help ensure that each group member has significant responsibility within the group.

Time allocation

Students need to be given enough time in class as well as at home to complete the project to a sufficient depth. This is an opportunity for them to develop many skills, including research skills, team work, communication skills and analytical skills, and initiative and responsibility. It also enables them to explore a major issue of our time.

Group presentations

1 Allow enough lesson time for each group presentation, so that each group can use a range of creative modes to present their findings and do justice to the effort they made in performing the range of tasks, without taking so long that their audience loses interest.

2 Give each group a clear time limit and ensure they rehearse their presentation so that it fits within that limit and yet covers all aspects required.

3 Make a range of modes of presentation possible, so that students have every opportunity to demonstrate their ability to use a range of communication modes with creativity and style.

Cross-curriculum links

Teachers can build into this an opportunity for students to learn how to construct and carry out and process an objective, unbiased survey to identify the range of attitudes held in the school or local community. This is an important cross-curriculum opportunity, showing the students a real-life application of the statistical methods they learn in mathematics.

Assessment

It is recommended that the assessment of this is a major part of student assessment for this topic. See the sample assessment rubric for the group project. Presentations can also be assessed by the students using the proforma for student assessment of group presentations.