

LETTER OF PRESENTATION

**Istituto Comprensivo "N. Nicolini" middle school -
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Participation in the "ENERGIOCHI CONTEST 8TH EDITION"- school year 2012-2013

Construction of a questionnaire concerning the information needs analysis of young learners about energy issues

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ENERGIOCHI CONTEST 8TH EDITION

This project for middle school pupils, with the involvement of teachers, parents and public authorities, aims at informing, training and educating young learners on the basics of sustainable development as well as increasing respect and appreciation for the environment, making youngsters critical protagonists of ecological changes.

Project proposal

Everything is based on the Science and Mathematics syllabus of the third year of middle school, especially topics related to energy saving and the basics of statistics, which gave pupils the opportunity to study the importance of fossil fuels limitation and of power saving and energy efficiency by constructing a questionnaire to inquire into the information needs of young teenagers about energy issues.

This idea got support when we analyzed some demographic data referred to the town of Tollo. In fact, we realized that the town administration had already had an information service for its citizens concerning environmental issues. However, we also found out that this service should be further promoted, particularly among young people. Moreover, a class debate brought students to consider how necessary is to know what the uses and management of energy sources by teenagers are, both at home and/or outdoors and whether they are aware of current issues about an increasingly

growing "energy emergency", both in terms of shortage and pollution. The purpose of this action is to make more effective and vigorous the work done by teachers, parents and public authorities on informing and educating young learners about the basics of sustainable development as well as increasing respect and appreciation for the environment, in order to make youngsters critical protagonists of ecological changes.

After this introduction, this year again, with great enthusiasm, we decided to take part in the initiative sponsored by the Abruzzo Regional Government, ARAEN, in cooperation with the Department of Human Science of the University of L'Aquila (Italy), the Italian Ministry of Education, the Regional School Office for Abruzzo, and the Energy Technologies Department of the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA). We have also been supported by the town administration of Tollo that shows particular interest in environmental issues, believing in the social, economic, educational and political involvement of citizens as a key factor in changing positively the environment.

Project description

- 1) Construction of a questionnaire concerning the information needs analysis of young learners about energy issues.
- 2) Submission of the questionnaire to students and parents
- 3) Data analysis by the students in the last year of middle school

The purpose of this action is to make more effective and vigorous the work done by teachers, parents and public authorities

Recipients

Middle-school students in their last year (Italy: 3rd graders, US: 8th graders) at the Istituto Comprensivo "N. Nicolini" - Tollo (Italy).

Project involvement

Middle-school students in their last year (Italy: 3rd graders, US: 8th graders) at the Istituto Comprensivo "N. Nicolini" - Tollo (Italy)

and the Science and Mathematics teacher.

Guidelines for constructing the questionnaire

Before starting, any environmental education action should take into account the use of a survey tool that monitors the information needs coming from a recipient group, in order to reach a successful action. At this stage, the survey tool is the questionnaire. While the questionnaire is being constructed, it is necessary to assess the reliability of data according to different variables, such as:

1. questionnaire design;
2. validation through pre-testing;
3. training of interviewers;
4. check for possible distortions (errors) during data coding and processing.

It is furthermore necessary to perform an analysis of the area where the students will operate, identify survey criteria and define sample size and dimension.

The questionnaire is anonymous and illustrated in all its parts, in order to avoid negative aspects, such as: incomplete answers due to difficulties or wrong interpretation of questions, the questionnaire might not be returned. However, of course, it is necessary for the pollsters to be trained in a course so that they are able to know the project objectives without affecting the answers to be collected. The questions are closed-ended with well-defined answers.

While constructing the questionnaire, students tried to organize the topics into groups in order not to confuse the interviewed person. There are questions evaluating the awareness of the interviewed person and the reliability of the answers. There are also funnel questions, which start with general questions and then asking more and more detail at each level in order to get as much information as possible. There is also a part,

which is to be completed with the parents' help; this is meant to involve parents too in the project.

OBJECTIVES

General

Inquiring into the students' information needs concerning these issues in order to:

- ✓ start a project intended to educate students on the importance of *energy saving and efficiency* as well as the principles and values of sustainable development in its three aspects: social, economic and environmental;
- ✓ help parents, teachers and public authorities in their educating task;

Specific

- ✓ teach middle-school young students about the principles of environmental education and sustainable development;
- ✓ raise the students' interest in nature and environment;
- ✓ involve students in social and environmental issues proposing solutions at their reach;
- ✓ encourage debate and thoughts on environmental issues.
- ✓ work together and participate in research about renewable and non-renewable energy as well as the existence of innovative programs for an efficient use of renewable energy and an intelligent use of non-renewable sources;
- ✓ know the non-sustainability of some collective and individual behaviors, think about how to save fuel consumption and how to use renewable energy sources in the best possible way;
- ✓ find relationships and interdisciplinary connections among phenomena; air pollution and health;
- ✓ have a better understanding of the world we live in, by gradually comprehending the complexity and the interdependence of various environmental issues (e.g. air pollution, environmental degradation, health dangers, poverty, etc.);
- ✓ perceive the importance of cooperation among different social groups, involve students in being active to promote environmental services which are operating in their town.
- ✓ correct according to scientific criteria distorted information coming from mass media.

LEARNING OBJECTIVES

- ✓ explain and identify renewable and non-renewable energy sources;
- ✓ understand how necessary the use of renewable energy sources is;
- ✓ work with software.

Methodologies

- ✓ data collection and processing
- ✓ creating a PowerPoint presentation and videos
- ✓ questionnaire processing
- ✓ questionnaire submitted to the Mayor and the School Principal
- ✓ topical meeting about renewable energy sources held by a teacher who is an expert in the field, Prof. Emidio Ricci, on Apr 04, 2012

Tell us more about the impact of your project (indicators and results so far) and how it is organized (team size, type of structure, budget...)/ Dites nous en plus sur l'impact de votre projet (indicateurs et résultats jusqu'à présent) et son organisation (taille d'équipe, type de structure, budget...)/ Díganos más sobre el impacto de su proyecto (indicadores y resultados hasta ahora) y cómo están organizados (tamaño del equipo, tipo de estructura, presupuesto, ...): (400 caract. max)

All the middle-school students are recipients of the questionnaire. The questionnaire is constructed by the Science and Mathematics teacher together with students in the last year of middle school. The project will be done during the school year from September to April. Data analysis will be performed by May. The project will be funded by the Italian Ministry of Education and other public bodies.

STUDENTS' LIST OF THE III B CLASS:

1. BUCCI MAILA
2. CAVUTO LUCREZIA
3. CIVITARESE NICOLO'
4. D'EUSANIO PIETRO
5. DE CLERICO ALESSANDRA
6. DELLA NEBBIA JACOPO
7. DI CESARE SAMUELE
8. DI FABIO FRANCESCA
9. DI PILLO ROBERTA
10. LEVE AGUSTINA
11. MARKU PETRIT
12. NICOLINI MARIA GRAZIA
13. PARIS BEATRICE
14. SANTURBANO ELEONORA
15. TRABOCCHI GIANNI
16. TRIVARELLI EMANUELE
17. ZIU KEIDI