RESEARCH PROJECT:

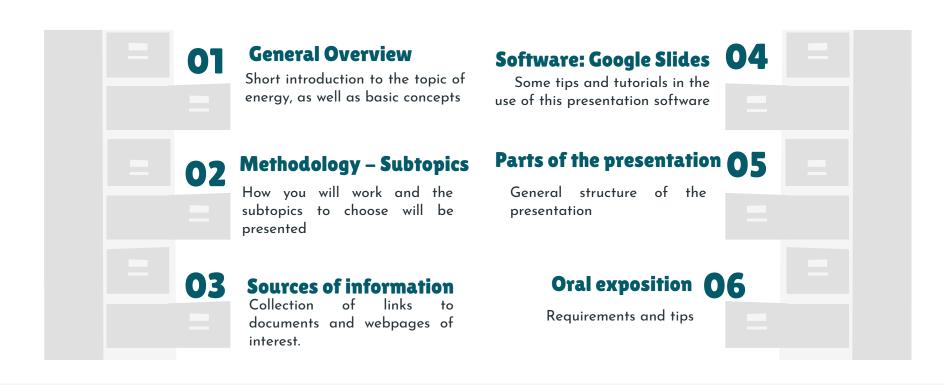
ENERGY SOURCES AND ENERGY PRODUCTION.

Situation in Spain and Scotland

Technology 3º ESO IES Villa de Vícar



TABLE OF CONTENTS



01 GENERAL OVERVIEW



Must be transformed in other forms of energy more convenient for its consumption.

SECONDARY ENERGY, FINAL ENERGY OR USABLE ENERGY

The most common usable energies are:

Are used for:

Are

energy

Those substances present in nature that can be used to produce usable

Non-renewable energy sources

• Fossil fuels: coal, oil and natural gas.

Can be classified into:

 Nuclear energy (uranium mineral)

Renewable energy sources

- Solar energy.
- Wind energy.
- Water energy (hydraulic and marine energy).
- Biomass energy.
- Geothermal energy.

Electric energy or electricity

It is generated in "Power Plants"; depending on the primary energy they use, we can distinguish:

- Thermal power plant.
- Nuclear power plant.
- Hydroelectric power plant.
- Solar power plants.
- Wind power plant.
- Biomass power plant.
- Others: geothermal power plant, tidal power plant.

Thermal energy or heat

Some substances produced from primary energy sources are used to get heat.

- Coal products.
- Oil products in refineries: LGP, gasoline, kerosene etc.
- Natural gas.
- Biomass products: biofuels and biogas.
- Solar energy.



Transport
Industry
Home
Agriculture
and
services.

02 METHODOLOGY



You will work in groups of three students.

The <u>project</u> will consist of these <u>stages</u>:



1. <u>Design</u> of the presentation document and selection of the info to use in it (text, pictures, graphs, diagrams...)



2. <u>Creation of the presentation document with Google Slides, taking advantage of the possibility to work online.</u>



- 3. <u>Preparation</u> of the oral exposition.
- 4. Oral exposition. Deadline: beginning of March

O2 SUBTOPICS (TO CHOOSE ONE)

O1. Non-renewable energy sources: fossil fuels

- Production of oil products in refineries, coal and natural gas.
- Transport to consumption places.
- Use of fossil fuels to produce electricity in power plants.
- Use of fossil fuels to produce heat at home and industry and to move vehicles.
- Current situation of fossil fuels in Scotland and Spain

O2. Non-renewable energy sources: nuclear energy

- Use of nuclear energy to produce electricity in power plants.
- Current situation of nuclear energy in Scotland and Spain

O3. Hydraulic and marine energy sources

- Use of hydraulic energy to produce electricity in hydroelectric power plants.
- Use of marine or tidal energy to produce electricity in tidal power plants.
- Current situation of hydraulic and marine energy sources in Scotland and Spain



O2 SUBTOPICS (TO CHOOSE ONE)

04. Biomass energy sources.

- Use of biomass (municipal solid waste, other biomass waste, biogas and biofuels) at home, for vehicles in transport and for the generation of electricity in power plants.
- Current situation of biomass energy sources in Scotland and Spain

O5. Solar and geothermal energy sources

- Use of solar energy to produce electricity in thermosolar power plants and photovoltaic solar plants.
- Use of solar energy to produce electricity and heat for domestic use.
- Use of geothermal energy to produce electricity in geothermal power plants.
- Current situation of Solar and geothermal energy in Scotland and Spain

06. Wind energy source

- Use of wind energy to produce electricity in wind farms.
- Current situation of wind energy in Scotland and Spain



03 SOURCES OF INFORMATION



In these links you will find all the information you need for preparing your presentation:

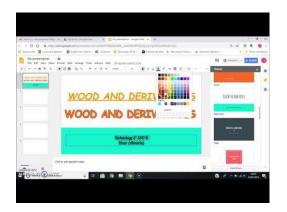
- Info about technical issues on Energy sources and energy production.
- Info about energy sources in Scotland.





04 SOFTWARE: GOOGLE SLIDES

In the following videos you will be able to learn or remember the basic features for making a presentation with Google Slides. It goes without saying that you can find other great tutorials on the internet.







04 SOFTWARE: GOOGLE SLIDES

Keep in mind these TIPS in a presentation document:

CHOOSE A NICE THEME AND DESIGN FOR YOUR SLIDES.

AND TAKE CARE OF THE COLOURS AND FONTS.

USE RELEVANT
PICTURES AND WITH
AN APPROPRIATE
QUALITY AND SIZE.

USE EFFECTS TO DRAW THE ATTENTION OF THE AUDIENCE.

DON'T WRITE TOO MUCH TEXT. INSTEAD, USE PICTURES, GRAPHS, MIND MAPS OR DIAGRAMS, ALL OF THEM WITH AN APPROPRIATE SIZE.

O5 PARTS OF AN ORAL PRESENTATION

We will spend some classes practicing and training the structure of an oral presentation. In the document below you can consult or check it to prepare the exposition.

Language in an oral presentation.

06 ORAL EXPOSITION

Here you have a collection of videos with tips and examples about how to give an oral presentation:







06 ORAL EXPOSITION





THANKS

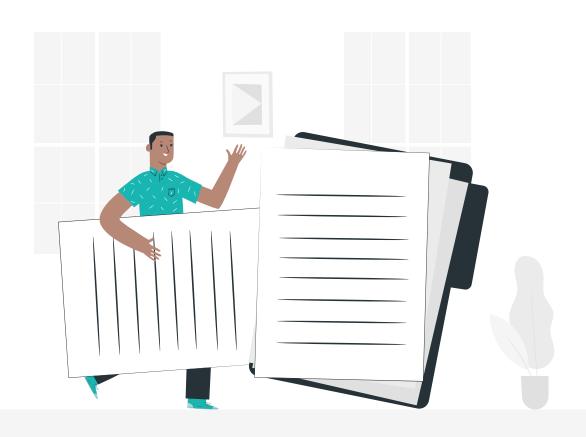
Do you have any questions?

youremail@freepik.com +91 620 421 838 yourcompany.com



CREDITS: This presentation template was created by Slidesgo, including icons by Flaticon, and infographics & images by Freepik

Please keep this slide for attribution.



slidesgo