PowerPoint Notes Name_____

1. Renewable energy comes from _____ resources that are naturally replenished, such as sunlight, wind and waves.

2. Non-renewable energy comes from natural resources that are not naturaly replenished such as _____, oil, and _____ gas.

3. _____ is used to heat our homes, water and to cook our food. We need energy to power our _____. We use diesel, oil, or electricity for fuel. We use electricity to power lots of things, such as _____, televisions, and computers.

4. **Solar energy** comes from the _____. The _____ can be used to give us heat energy. Solar panels are used to convert _____ into electricity.

5. Wind turbines are used to convert _____ **energy** to electricity. The _____ blows the blades around and this movement is converted into electricity. A group of wind turbines is called a _____ _____.

6. **Hydropower** is energy that comes from moving _____. Water that flows down fast-flowing _____ is used to spin turbines in dames that generate electricity. The movement of big waves at _____ can also be used to generate energy.

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7. **Geothermal energy** is heat from under the _____ surface. Geothermal energy can be collected from hot water just below the _____ surface, or hot _____ deep below the surface. A georthermal power plant is used to convert the heat from under the _____ surface to usable energy.

8. **Biomass** means _____ material. Energy can be obtained by _____ natural materials such as scrap pieces of _____, dead trees, or unused parts of crops. Biomass is used to create biofuels.

9. **Coal** is minded from under the _____ and burned in large power stations to produce electricity. The coal that we use cannot be replaced so one _____there will be no coal left. Burning coal is _____ for the environment because lots of _____ dioxide gets released into the atmosphere.

10. **Oil** is found deep underground and _____ up to the surface for use to use. Oil is burned at some power stations to make electricity and also used to make _____which we use in our cars. If we keep using _____, there will eventually be none left.

11. **Nuclear power** states use uranium as _____to make electricity. Uranium is a natural resource taken from the ground so it is _____ renewable. Nuclear power doesn't produce much waste so it is a very clean way of generating energy.

12. **Natural_____** is found deep underground and is pumped into our homes. We use it to cook and burn it in a boiler to _____ our water. The gas we pump from underground will one _____ run out and there won't be any _____ to use.

13. Renewable energy, such as _____ and _____, can't be stored to be used whenever we need it. If the wind doesn't _____, or if it isn't very sunny, then there may not be enough _____ for everyone. Non-renewable resources, such as _____ or coal, can be stored and used when they are _____. Non-renewable energy is usually cheaper than renewable energy, which means not everyone can _____ to use renewable energy.

Highlight with a yellow crayon or marker the 4 kinds of power mentioned above that are non-renewable.

Highlight with a green crayon or marker the 5 kinds of power mentioned above that are renewable.

PowerPoint Notes Answer Key

1. Renewable energy comes from natural resources that are naturally replenished, such as sunlight, wind and waves.

2. Non-renewable energy comes from natural resources that are not naturaly replenished such as coal, oil, and natural gas.

3. Gas is used to heat our homes, water and to cook our food. We need energy to power our cars. We use diesel, oil, or electricity for fuel. We use electricity to power lots of things, such as lights, televisions, and computers.

4. **Solar energy** comes from the sun. The sun can be used to give us heat energy. Solar panels are used to convert sunlight into electricity.

5. Wind turbines are used to convert **wind energy** to electricity. The wind blows the blades around and this movement is converted into electricity. A group of wind turbines is called a wind farm.

6. **Hydropower** is energy that comes from moving water. Water that flows down fast-flowing rivers is used to spin turbines in dames that generate electricity. The movement of big waves at sea can also be used to generate energy.

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7. **Geothermal energy** is heat from under the earth's surface. Geothermal energy can be collected from hot water just below the earth's surface, or hot magma deep below the surface. A georthermal power plant is used to convert the heat from under the earth's surface to usable energy.

8. **Biomass** means natural material. Energy can be obtained by burning natural materials such as scrap pieces of wood, dead trees, or unused parts of crops. Biomass is used to create biofuels.

9. **Coal** is minded from under the ground and burned in large power stations to produce electricity. The coal that we use cannot be replaced so one day there will be no coal left. Burning coal is bad for the environment because lots of carbon dioxide gets released into the atmosphere.

10. **Oil** is found deep underground and pumped up to the surface for use to use. Oil is burned at some power stations to make electricity and also used to make fuel which we use in our cars. If we keep using oil there will eventually be none left.

11. **Nuclear power** states use uranium as fuel to make electricity. Uranium is a natural resource taken from the ground so it is not renewable. Nuclear power doesn't produce much waste so it is a very clean way of generating energy.

12. **Natural gas** is found deep underground and is pumped into our homes. We use it to cook and burn it in a boiler to heat our water. The gas we pump from underground will one day run out and there won't be any left to use.

13. Renewable energy, such as wind and sunshine, can't be stored to be used whenever we need it. If the wind doesn't blow, or if it isn't very sunny, then there may not be enough power for everyone. Non-renewable resources, such as oil or coal, can be stored and used when they are needed. Non-renewable energy is usually cheaper than renewable energy, which means not everyone can afford to use renewable energy.

14. Highlight with a yellow crayon or marker the 4 kinds of power mentioned above that are non-renewable.

15. Highlight with a green crayon or marker the 5 kinds of power mentioned above that are renewable.

My Group's Energy Source _____Group Members _____

Where is this energy source found?	
How is this energy source obtained?	
What are the advantages to using this energy source?	
What are the disadvantages to using this energy source?	
What were your sources of information? (If you used one of the ones listed below, circle it.)	
What is a fun fact about this energy source?	

https://www.energy.gov/science-innovation/energy-sources
https://www.solarschools.net/knowledge-bank/energy/sources

http://www.rmcmi.org/education/coal-facts#.YF9Wc2RKhQI
(coal

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Renewable and Nonrenewable Sources of Energy Presentation Notes

Energy Source	Is it renewable or nonrenewable?	Where it is found?	What are the advantages to using this energy source?	What are the disvantages to using this energy source?
coal				
oil				
natural gas				
solar				
wind				

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Energy Source	Is it renewable or nonrenewable?	Where it is found?	What are the advantages to using this energy source?	What are the disvantages to using this energy source?
biomass				
nuclear				
geothermal				
hydropower				

Scoring Rubric for Poster Name(s)_____

Category	Exemplary 20-25 pts	Accomplished 15-19 pts	Developing 6-14 pts	Beginning 0-5 pts	Points Earned
Attractiveness	The poster is exceptionally attractive in terms of design, layout, and neatness.	The poster is attractive in terms of design, layout, and neatness.	The poster is acceptably attractive though it may be a bit messy.	The poster is distractingly messy or very poorly designed. It is not attractive.	
Title	Title can be read from 6 ft. away and is quite creative.	Title can be read from 6 ft. away and describes content well.	Title can be read from 4 ft. away and describes the content well.	The title is too small and/or does not describe the content of the poster well.	
Originality	Several of the graphics used on the poster reflect an exceptional degree of student creativity in their creation and/or display.	One or two of the graphics used on the poster reflect student creativity in their creation and/or display.	The graphics are made by the student but are based on the designs or ideas of others.	No graphics made by the student are included.	
Relevance	At least 6 energy sources are listed and sorted as renewable/ non-renewable	At least 4 energy sources are listed and sorted as renewable/ non-renewable	At least 3 energy sources are listed and sorted as renewable/ non-renewable	Energy sources are listed but not sorted.	
Content - Accuracy	At least 3 alternatives of non-renewable are suggested	At least 2 alternatives of non-renewable are suggested	At least 1 alternative of non-renewable is suggested .	No alternatives of current non-renewable sources are suggested.	
Grammar	There are no grammatical mistakes on the poster.	There is 1 grammatical mistake on the poster.	There are 2 grammatical mistakes on the poster.	There are more than 2 grammatical mistakes on the poster.	
Total 150 points					

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