**Physics Revision: Energy Resources**

Mastery Matrix Points

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| Describe the main energy resources on Earth |
| Define renewable and non-renewable resources |
| Describe how energy resources are used |
| Compare and contrast energy resources in terms of reliability, cost, political, social and environmental factors |
| Explain patterns and trends in the use of energy resources |

Key Knowledge

Definitions:

Energy resources

Renewable

Non-renewable

Name the renewable energy resources:

Name the non-renewable energy resources:

Which resources are not reliable?

Which resources contribute to global climate change through releasing CO2?

Which resources are used for

- transport?

- heating?

- electricity generation?

Understanding and Explaining

1. **Explain how these energy resources can be used to produce electricity (e.g. turns turbine or burnt) and give the advantages and disadvantages.**

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| --- | --- | --- | --- |
| **Resource** | **How is this used to make electricity?** | **Advantages** | **Disadvantages** |
| fossil fuels (coal, oil and gas) |  |  |  |
| nuclear fuel |  |  |  |
| Biofuel |  |  |  |
| Wind |  |  |  |
| The tides |  |  |  |
| hydro-electricity |  |  |  |
| Geothermal |  |  |  |
| the Sun |  |  |  |
| water waves |  |  |  |

1. **Explain how the use of energy resources has changed over time.**