Changes in the Global Energy Balance



**Syllabus Link:** Changes in the global energy balance, and the role of feedback loops, resulting from:

* solar radiation variations, including global dimming due to volcanic eruptions
* terrestrial albedo changes and feedback loops
* methane gas release and feedback loops

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|  **Climate Change Evidence** |
| What evidence is there for historic climate change? |
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| What has happened to the rate of climate change in the last few decades? |
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| What seems to be the main cause of the increased rate of temperature change? |
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| **Feedback** |
| What are feedback loops? |
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| Describe positive feedback and give an actual example of this |
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| Describe negative feedback and give an actual example of this |
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| **Solar Radiation Variations** |
| Take notes on the following |
| Changes in solar outputs |  |
| Changes in earth’s orbit |  |
| Explain global dimming and give a case study example for this |  |
| Changes in the natural carbon cycle |  |
| Explain what albedo is and how changes in this can lead to feedback loops |
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| **Terrestrial Albedo** |
| Explain what terrestrial albedo is and how changes in this can lead to climate change |
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| Give an example of a feedback loop |
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| **Methane Gas Release** |
| What is methane gas release and where does this occur |
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| Give an example of a feedback loop for methane gas |
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