



Which body glows with radiant energy that has its source in nuclear processes in the interior of the body?

- a) Sun.
- b) Earth.
- c) Both.
- d) Neither.

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CONCEPTUAL Physics

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Answer: c, both

Both glow with the same type of radiation, electromagnetic waves, with energy that originates in the interiors from nuclear processes. The Sun is heated by fusion of hydrogen nuclei to make helium. The Earth is heated by radioactive decay of heavy elements in its interior. Both bodies are powered by nuclear processes, and both radiate the produced energy—but in vastly different quantities and at different frequencies.

The Earth's glow is in the infrared.

The Sun radiates much more energy and at higher frequencies.



