

# What is 'high grade' and 'low grade' coal?

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## Gradation of coal:

- Coal grade is an **economic or technological classification of the relative quality of a coal for a particular use.**
- The classification of coal is determined based on **the gross calorific value (GCV) or the amount of heat or energy produced when burning coal.**
- Coal being a fossil fuel is a **mixture of carbon, ash, moisture and a host of other impurities.** The higher the available carbon in a unit of coal, the greater is its quality or 'grade.'
- As per a classification by **the Coal Ministry**, There are **17 grades of coal**, where grade 1 (top quality coal) with a kilo of it yielding higher than 7,000 kcal and the lowest producing anywhere between 2,200-2,500 kcal.

## Types of coal:

- There are **four major types of coal**.
    - **Anthracite:** It is the highest rank of coal and often referred to as hard coal. It contains a high percentage of fixed carbon and a low percentage of volatile matter.
    - **Bituminous:** Bituminous coal is a middle rank. It usually has a high heating (Btu) value and is used in electricity generation and steel making.
    - **Subbituminous:** It has low-to-moderate heating values and is mainly used in electricity generation.
    - **Lignite:** It is the lowest grade coal with the least concentration of carbon. It has a low heating value and a high moisture content and is mainly used in electricity generation.
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## Q1: Which are the major producers of coal in the world?

China, India, US, Australia and Indonesia make up the five leading coal producing countries in the world. China remained the world's largest coal and lignite producer in 2022, accounting more than for half of supply (51% in 2022).

**Source:** [Adani group faces allegations of selling low-grade coal as high quality](#)

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