

# POLLUTION

## Key Revision Facts: GCSE Technology

It's almost impossible to make a product without causing some form of pollution. Businesses have several options to reduce the level of pollution caused by a product. By conducting a **Life Cycle Assessment**, a company can determine how much pollution is being created and plan to reduce the pollution.

### Life-cycle assessment

Life-cycle assessment or LCA (also known as life-cycle analysis) is a methodology for assessing environmental impacts associated with all the stages of the life-cycle of a commercial product, process, or service. For instance, in the case of a manufactured product, environmental impacts are assessed from raw material extraction and processing (**cradle**), through the product's manufacture, distribution, and use, to the recycling or final disposal of the materials composing it (**grave**).

### Global Warming

Global warming is the long-term heating of Earth's climate system observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth's atmosphere.

### Carbon Footprint

A carbon footprint is the total greenhouse gas emissions caused by an individual, event, organization, service, or product, expressed as carbon dioxide equivalent.

### Carbon Neutrality

Carbon neutrality refers to achieving net-zero carbon dioxide emissions. Carbon neutrality can be done by balancing emissions of carbon dioxide with its removal (often through carbon offsetting) or by simply eliminating emissions altogether.

### Carbon Offsetting

A carbon offset reduces emissions of carbon dioxide or other greenhouse gases made to compensate for emissions caused elsewhere. Offsets are measured in tonnes of carbon dioxide-equivalent (CO<sub>2</sub>e). Examples of projects that produce carbon offsets include Renewable energy projects, such as building wind farms that replace coal-fired power plants. Energy-efficiency improvements include increasing buildings' insulation to reduce heat loss or using more-efficient vehicles for transportation and planting trees.

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## VERSION INFORMATION

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