

Jobs in materials science

1

Read the following text and use these words to replace those underlined in the passage.

adaptable • breakdown • enormous • financial plan • growing • information about • relics • taught

Materials science is an extremely (1) versatile field which offers vast job opportunities in many areas where materials scientists can work:

- **Research and Development;**
- **Materials Selection** – which involves (2) knowledge of a wide range of materials to choose the best materials within a (3) budget;
- **Corrosion Prevention** – since materials scientists study thermodynamics, kinetics and phase transformation, they are (4) trained to succeed in this industry which is one of the most important in the world;
- **Failure Analysis** – a materials scientist can study the failure of a product or a component, determine its cause, and suggest how to avoid material (5) failure in the future;
- **Materials Forensics** – it is quite similar to failure analysis, but it can also include archaeological studies. Materials scientists may be consulted in legal affairs (for example, they may be asked to analyse the wreckage from a car accident to determine who was at fault) and they may even be asked to analyse historical (6) artifacts!
- **Computational work** – can apply to any industry since computing power is (7) ever-increasing and therefore is a strong demand for engineers that can use computational methods;
- **Semiconductors** are another (8) huge industry for materials engineers.



MATERIALS SCIENTIST VS MATERIALS ENGINEER

Although these two roles work in the same field, there are some distinct differences. Materials scientists focus more on researching materials, whereas materials engineers work on the manufacturing of materials. During their studies, material scientists may develop new materials that may work more efficiently. However, a materials engineer recommends existing materials to use to improve the production and costs.

Adapted from <https://www.indeed.com/career-advice/finding-a-job/what-is-materials-scientist>