

# SUSTAINABLE FUTURES

STUDENT ACTIVATION | GRADE RANGE: 6-8

## **Product Development Engineer**

Every business needs a professional who can bring its people and teams together to solve problems. A **Product Development Engineer** does this while leading a team who is responsible for managing design, prototyping, and testing the development of energy efficient and sustainably sourced products.

### PRODUCT DEVELOPMENT ENGINEERS1

**Product development engineers** consider Trane Technologies' goal of creating comfortable, energy-efficient indoor environments for buildings and homes in order to come up with ideas for new products. Then, they design and test them. They also ensure that all new products meet industry standards for performance and safety.

### IS BECOMING A PRODUCT DEVELOPMENT ENGINEER A GOOD CAREER FOR ME?

| Ме  | Product Development Engineer  |
|---|---|
| I am interested in school subjects like math, science, technology, and engineering. | Product Development Engineers study engineering in college.   |
| I am good at analyzing and solving problems.  | Product Development Engineers are extremely creative and are innovative problem solvers.                          |
| I am good at learning new technology.   | Product Development Engineers stay up to date with emerging technologies and are skilled at 3D modeling software. |
| I enjoy explaining things. I like working with others.                              | Product Development Engineers are strong communicators who work well with others.                                 |

<sup>1</sup> https://www.betterteam.com/product-development-engineer-job-description







| How does this career help me?   | How does this career help the world?  |
|---|---|
| Every time your family uses its heating or air conditioning unit, they benefit from the work of a Product Development Engineer. These professionals make sure their company creates a safe, reliable, and energy-efficient product for consumers. | Because Product Development Engineers are responsible for the design and testing of new products, they also make ethical business decisions to ensure their company's products are not only safe for the consumer, but also for the workers, suppliers, and the planet. |

#### What are some similar careers?

**Product Managers** are responsible for the development of products. Practicing product management means being responsible for the processes behind creating a product, determining functional requirements, and managing product releases.

Materials Development Engineers research and develop materials used in industrial processes and products. They also identify new or different combinations of materials to improve already existing products.

Here are ways to practice the skills to be a successful Product Development Engineer:

- Consider taking an elective or a class at a local community college to learn more about product engineering and 3D modeling software.
- The next time you are working on a group project, a building project at home, or even cooking a recipe with your family, obtain a detailed list of materials, ingredients, and steps. Test the resulting product and determine if anything can be done differently. Try a second time, if necessary. Make recommendations based on your analysis. If time and circumstances allow, test with multiple materials and ingredients to see what works better.
- Meet with your guidance counselor to organize your class schedule to allow for you to take advanced mathematics, technology, and engineering courses.



