

Task 1. Match the parts of the quotes (1- a) about engineering:

1. **Bill Nye** – "There's nothing I believe more strongly than getting young people interested in science and engineering, _____."
2. **Elon Musk** – "Engineering is the closest thing _____."
3. **Henry Petroski** – "As engineers, we were going to be _____."
4. **Steve Wozniak** – "Engineers love to solve problems. If there are no problems handily available, _____."
5. **Nikola Tesla** – "Let the future tell the truth, and _____. The present is theirs; the future, for which I have really worked, is mine."
6. **Theodore von Kármán** – "Scientists discover the world that exists; _____."
7. **Shannon Miller** – "There's never been a better time to be an engineer. The tools that you can use, _____."
 - a) evaluate each one according to his work and accomplishments
 - b) for a better tomorrow, for all humankind
 - c) the things that you can build—it's amazing
 - d) to magic that exists in the world
 - e) engineers create the world that never was
 - f) in a position to change the world – not just study it
 - g) they will create their own problems

Task 2. Fill in the gaps in the text with the most appropriate word:

design	requiring	scientific	improve	materials
solutions	advanced	technical	creatively	discoveries

Engineers use 1) _____ and mathematical knowledge to create innovative _____ for real-world challenges. They transform scientific 2) _____ into practical tools and technologies that 3) _____ the lives of individuals and society. From designing renewable energy systems, to constructing 4) _____ transportation networks, to developing new 5) _____ for medical devices, engineers employ their expertise to 6) _____, build, test, and optimize a vast range of products. The engineering field is broad, with many different branches, each 7) _____ specific skills and working environments, from laboratories to construction sites. Regardless of the specialty, engineers share a common foundation: a strong grasp of math and science, the ability to think 8) _____, proficiency, and a talent for problem-solving and analysis.

Task 3. Match the collocations with their definitions.

Efficient solutions:	The process of designing and constructing bridges, often done by civil engineers, to create transportation links between areas.
Build bridges:	Small electronic components, typically found in devices, that are designed to perform specific functions, crucial for modern technology.
Developing techniques:	Methods or systems developed by engineers that effectively solve problems while using minimal time, energy, or resources.
Integrated circuits:	The physical or virtual settings where engineers perform their tasks, which can range from laboratories and offices to industrial sites and construction zones.
Scientific discoveries:	The act of creating or refining methods and processes to improve efficiency, functionality, or effectiveness in various engineering fields.
Design products:	A strong enthusiasm for mathematics and science, which is essential for understanding and solving engineering problems.
Work environments:	The ability to use unconventional thinking or innovative approaches to solve complex problems in engineering.
Passion for math and science:	New findings or breakthroughs in science that engineers use to develop new technologies or improve existing ones.
Think outside the box:	The process of creating new products that serve practical purposes while also being visually appealing and user-friendly.

Task 4. Fill in the gaps with the most appropriate word from the list.

Apply: Produce: Develop: Design: Architect: Test: Maintain:

- Factories produce high-quality components based on the specifications set by engineering teams.
- Engineers work to develop innovative solutions that meet the changing needs of society.
- Mechanical engineers design machines that improve the efficiency of manufacturing processes.
- Engineers rigorously test prototypes to ensure they meet safety and performance standards.
- Technicians regularly maintain industrial equipment to prevent breakdowns and ensure smooth operation.
- Chemical engineers apply their knowledge of chemistry to create safer materials for consumer products.
- Software engineers architect complex systems to handle large-scale data processing efficiently.

Task 5. Match the persons (1-4) to their reason (a-d) for choosing engineering:

1. Sarah _____ Ever since she was a child, Sarah had an innate curiosity about how things worked. She would take apart household gadgets just to see their inner workings, and then challenge herself to put them back together. Her defining moment came during a school project, where she engineered a low-cost water filtration system for her community. Seeing how her project helped provide clean water made her realize the potential of engineering to create tangible solutions for everyday problems. This experience solidified her passion for using engineering to solve real-world challenges.

2. Jake _____ Growing up in a family of tech enthusiasts, Jake was constantly surrounded by cutting-edge gadgets and technology. His fascination with how rapidly technology evolved over the years—from the invention of smartphones to the development of autonomous cars—pushed him towards engineering. He dreamed of working on revolutionary projects that would define the future, like designing advanced AI systems or contributing to space exploration. Jake's passion lies in staying ahead of the technological curve and playing an active role in shaping the next wave of innovations.

3. Emily _____ Emily's drive to become an engineer stemmed from her deep concern for environmental issues. After learning about climate change and its impact on the planet, she became determined to make a difference. While researching potential careers, she realized that engineering provided the perfect pathway to create sustainable solutions. In college, she focused on renewable energy systems, developing methods for more efficient solar panels and energy storage. For Emily, engineering is about leaving a legacy of sustainability and innovation that can combat environmental damage and promote a greener future.

4. David _____ David came from a family of engineers, and their influence was profound. His parents often discussed their work at the dinner table, sharing the complexities of their projects, from designing bridges to creating new medical devices. As a child, David would visit their work sites and was inspired by the real-world impact of their efforts. He was particularly moved by how his mother's work in biomedical engineering improved patients' lives. Seeing the direct link between engineering and making the world a better place drove him to pursue the same path, with a focus on healthcare technologies.

Reasons:

- A. Was inspired by her family of engineers, particularly her mother, who developed healthcare technologies that improved lives.
- B. Became fascinated with the rapid evolution of technology and wanted to work on projects like AI systems or space exploration.
- C. Found her passion in creating practical, low-cost solutions like a water filtration system that helped her community.
- D. Chose engineering as a way to combat climate change by focusing on renewable energy systems and sustainability.