

Section 4 Worksheet

Section: Science and Engineering

1. How have scientists and engineers made it possible for research teams to stay in Antarctica year-round?

WHAT IS TECHNOLOGY?

2. What is another part of the definition of technology?

HOW DOES SCIENCE RELATE TO TECHNOLOGY?

3. How are engineering and science related?

4. What are some of the things that engineers have created?

WHAT IS THE ENGINEERING DESIGN PROCESS?

Match the correct definition with the correct term. Write the letter in the space provided.

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|-----------------------------------------------------------------------------|---------------------------------------|
| _____ 5. this step involves changing the prototype or trying a new solution | a. testing and evaluation |
| _____ 6. the first step of the engineering design process | b. modifying and retesting |
| _____ 7. this step can include brainstorming | c. making a prototype |
| _____ 8. a test model is developed in this step | d. identifying and researching a need |
| _____ 9. this step includes a cost-benefit analysis | e. developing possible solutions |

Name _____ Class _____ Date _____

10. How is communication important to engineers?

TECHNOLOGY AND SOCIETY

11. For what types of needs does technology provide solutions?

12. What are some examples of solutions to problems that engineers have provided for society?

13. What is the intended benefit of the automobile?

14. What are unintended consequences?

15. What are some positive unintended consequences of the automobile?

16. What are some negative unintended consequences of the automobile?

BIOENGINEERING

17. What is assistive bioengineering? Give an example.

18. What is adaptive bioengineering? Give an example.
