

10.2-Technology and Nature

ELITE 5

SCIENCE

REVISION QA

Period 1: How does technology mimic nature?

1. Many types of technology are created to mimic or imitate objects that occur in nature. T/F
2. Pacemaker can not regulate human's heartbeat. T/F
3. Artificial lungs "breathe" air like real lungs. T/F
4. Medical engineers work to develop systems that can replace body parts that are injured or missing, this technology is called _____.
 - a. mimicking
 - b. bionics
 - c. artificial organs
 - d. All the above
5. Donor organs are not always available, artificial organs, including heart, lungs, kidneys and even eyes are now a possibility. T/F

Period 2 & 3: What is prosthesis?

How is technology related to transportation?

1. Airplanes were designed after studying the way birds use their wings to fly. T/F
2. Many airplanes wings are built to mimic bird's wings. T/F
3. The _____ causes air to move faster over the top of the wing than at the bottom.
 - a. shape of the tail
 - b. shape of the wings
 - c. shape of the head
 - d. all of the above
4. A prosthesis is an artificial extension that replaces a body part. T/F
5. Skeletal system for prosthetic limbs:
 - a. limbs
 - b. Musculoskeletal system
 - c. pylon
 - d. All of the above

6. Prosthetic device is powered by cables connected to other parts of the body. T/F
7. Advanced prosthetic devices use _____ from the brain to move the prosthetic device.
- a. blood
 - b. nerves
 - c. electrical signals
 - d. all of the above

Period 4: How technology meets other needs.

1. _____ is the field of science and technology that uses robots.
- a. Prosthetics
 - b. technology
 - c. bionics
 - d. robotics
2. Robots are usually controlled by instruction from the computer. T/F
3. It is not safe to send robots to dangerous areas. T/F
4. Chose the false statement.
- a. Robots can perform complicated surgeries.
 - b. The first industrial robot was invented in 1954.
 - c. Robots can handle hazardous materials
 - d. Robots are not controlled by the instruction from the computers.
5. The first industrial robot was invented in 1954. It was an electronic arm that lifted heavy objects. T/F

Period 5: Technology in transportation and communication

1. One of the first (i.e. oldest) examples of transport technology is:
- Walking
 - The wheel
 - Cars
 - Running

2. The invention of new technologies in transport means that we now travel slower than ever before. T/F

3. Which of these are examples of transport technology:

- Walking
- Horse and chariot
- Bus
- Running

4. Social media is an example of communication technology. T/F