

Main Idea and Text Structure Review

Directions: Read each passage and on a separate sheet of paper...

1. Write a sentence explaining the main idea of the text
2. Create a title for the passage related to the main idea.
3. Put information from the passage into a graphic organizer representing the text structure.

Structures: cause and effect, chronological, compare and contrast, sequence / process writing, problem and solution, or spatial /descriptive writing.

1. What do you get when you cross a robot and an astronaut? A Robonaut! Robonauts are robot helpers designed to work side-by-side with astronauts. Work on the first Robonaut began in 1997, and by 2002 Robonaut B was revealed to the public. Robonaut B may have featured interchangeable lower bodies, like four-wheel mode or hydraulic legs, but scientists and engineers continued to improve Robonaut. In February of 2010, Robonaut 2 was released to the public. Robonaut 2 moved four times faster than the first Robonaut. An advanced version of Robonaut 2 was finally tested in outer space in 2011. Robonaut functioned exactly as designed.

2. *Automation* is the use of machines to reduce the need for human labor. In other words automation is when jobs done by people become jobs done by robots. Automation can be a good thing. Because of automation, clothing, cars, and other manufactured products are available at good prices and in large supply. But automation can also be a bad thing. Because of automation, there are over 700,000 robots in America alone that do jobs once performed by humans. The way of automation may not be best for humanity, but it is the course we are taking.

3. From airplanes to forklifts, hydraulic power is the strength behind many amazing technologies that affect our daily lives, even the breaks on your school bus, but how do they work? First, fluid is rapidly released into a chamber through a valve. As the fluid collect, the valve is slammed shut which causes a pressure spike. Because the chamber is sealed, the pressure has nowhere to go. The hydraulic mechanism channels the pressure and provides great power. And that's how, with the help of hydraulics, Grandma can stop a car with one foot.

4. Many people use the words *cyborg* and *android* interchangeably when, in fact, they have different meanings. Both terms refer to beings powered by robotics, but an android is powered entirely by robots. Though androids are completely mechanical, they are designed to look like humans. They may have synthetic skin, hair, and other features, but no human organs. On the other hand, cyborgs are part human and part machine. They may have robotic hands, legs, or eyes, but all cyborgs have surgically implanted technologies that enhance their abilities.

5. It is widely acknowledged fact that machines are stronger than people, but is it possible for them to become smarter than us too? Some scientists fear that it is, or so says the theory of technological singularity. In a nut shell, the theory of technological singularity says that when a computer becomes capable of improving its own capabilities, even in just the slightest way, it will go into an infinite loop, getting progressively smarter, which would inevitably lead to machines becoming smarter than people, or so the theory goes. Such gains in available intelligence might lead to huge improvements in science and medicine. Diseases could be cured and so forth. On the other hand, it could lead to the total domination of mankind by robots, which would be bad. I, for one, welcome our new computer overlords.

6. Fellow Members of the Springfield Robotics Club: It has come to my attention that the workshop has been left an absolute mess on at least two separate occasions. Remember, that this is a shared space, so we must clean up behind ourselves after every meeting. It is in the spirit of keeping our club meeting space that we establish this rule: when you take a tool off the rack, put it back. If everyone puts their tools back immediately after they are done using them, there will be minimal mess to clean up, and we won't get kicked out of the spot. So if you like having a meeting place, put your tools back.