



Virtual Learning

Medical Interventions

The Future

May 22, 2020



Medical Interventions

Lesson: May 22, 2020

Objective/Learning Target:

Recognize the importance of Medical Interventions and research in biomedical science and make predictions about the future applications to human health.



Let's Get Started:

1. Think back to everything you have learned about Medical Interventions from this year. View this [slide presentation](#) for a refresher.
2. What role do medical interventions play in the prevention, diagnosis, and treatment of disease?



Let's Get Started: **Answers**

1. Think back to everything you have learned about Medical Interventions from this year. View this [slide presentation](#) for a refresher.
2. What role do medical interventions play in the prevention, diagnosis, and treatment of disease?
 - a. Answers should include that Medical interventions are measures to improve health or alter the course of an illness and can be used to prevent, diagnose, and treat disease in a number of ways as shown throughout the course.



Lesson Activity

Consider the future of Medical Interventions. What do you believe will be possible in the future? Consult the list of resources below as you generate your top 5 future applications. Consider the following questions as you generate your list:

1. How can human organs, limbs, joints, and senses be improved using modern medicine and technology?
2. How can disease prevention be improved?
3. How can genes be modified and improved?
4. How can disease diagnostics and treatment be improved?

- The Journal [Nature](#)
- [Ted Talks](#)
- [Medical Futurist](#)
- Other internet resources



Practice

Research ways new Medical Interventions are currently being developed for each of the 4 major units for Medical Interventions. A reliable source for research is to use [Google Scholar](#) when finding primary research.

- Unit 1: Infectious diseases, antibiotics, hearing loss, vaccinations
- Unit 2: Genetic testing and screening, gene therapy, reproductive technology
- Unit 3: Cancer detection, diagnoses, and treatment
- Unit 4: Biomanufacturing, organ transplantation, tissue engineering



Practice - **Answers**

Research ways new Medical Interventions are currently being developed for each of the 4 major units for Medical Interventions. A reliable source for research is to use [Google Scholar](#) when finding primary research.

- Answers will vary



Additional Practice/Resources

1. Check your understanding by writing a two paragraph reflection on everything you have learned about medical interventions throughout this course. Think about all you have learned and discussed this year and describe the role medical interventions play in preventing, diagnosing, and treating disease in the human body.
2. The next PLTW course, Biomedical Innovations, involves research. Since you have conducted research into new medical interventions and given what you have learned this year, what is one research question you would be interested in investigating and answering? Explain.