



Lesson 4

Vocabulary Exercise

In Lesson 4 of our exploration into biomedical engineering, the vocabulary sheet will focus on the intersection between this field and the emerging paradigm of personalized medicine. The sheet will introduce students to key terms that elucidate how biomedical engineering contributes to the development of medical treatments tailored to individual patient needs.

Recommended Grade Levels: 6-8

MRI Vocabulary List for Lesson 4

1. **Non-Invasive:** Not entering the body or damaging tissues.
2. **Superconducting Magnets:** Type of magnet used in MRI machines.
3. **Anatomy:** The study of the structure of the body.
4. **Physiology:** The study of the functions of the body.
5. **Early Disease Detection:** Identifying illnesses before symptoms appear.
6. **Personalized Medicine:** Tailoring medical care to individual needs.
7. **Neurological Disorders:** Diseases of the nervous system.
8. **Minimally Invasive Procedures:** Medical treatments that don't require large incisions.
9. **Ethical Considerations:** Moral questions and dilemmas.
10. **Accessibility:** How easy it is for people to use a technology or service.
11. **Brain Connectivity:** How different parts of the brain communicate.
12. **Precision Medicine:** Tailoring treatment based on individual genetics and needs.
13. **MR-Guided Interventions:** Using MRI for precise surgical procedures.
14. **Advancements:** Developments or improvements.
15. **Application Areas:** Different fields or contexts where something can be used.



16. **Potential Limitations:** Possible restrictions or drawbacks.
17. **Brainstorming:** A group activity to generate creative ideas.
18. **Diagnostics:** Techniques used to identify diseases.
19. **Innovation:** The act of introducing new ideas or methods.
20. **Compass:** A tool for finding direction, metaphorically used for guidance.