



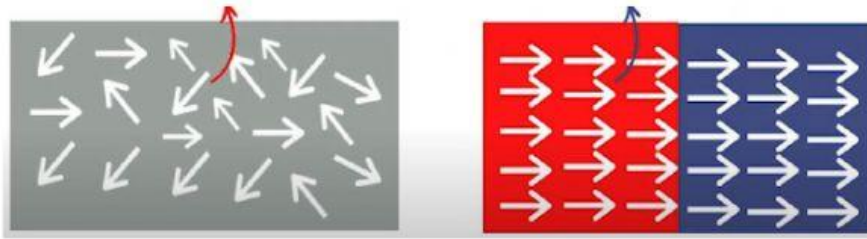
How do Magnets & Magnetic Fields Work Video Notes

1. Magnets are any material capable of _____ and producing a _____
2. Permanent magnets always have a _____ field. You can not _____
3. _____ is a naturally occurring _____ magnet that comes from magnetized pieces of the mineral magnetite.
4. Electromagnets magnetic fields can be _____
5. What is the difference between permanent magnets and electromagnets? _____

6. What are some examples of electromagnets? _____
7. What are electromagnets used in? Provide examples. _____
8. Magnetic domains are certain regions of a material that _____ with the Earth's _____. These regions are responsible for the magnetic properties of _____.
9. Where does Earth's magnetic field start at? _____. What is it made out of? _____
Where does Earth's magnetic field extend out into? _____.
10. How does Earth's magnetic field protect us? _____

11. Like magnetic poles _____ each other, while opposite magnetic poles _____ each other.
12. What happens to a magnets magnetic poles when you cut it in half? _____

Learning Target: I can describe and explain how magnets and magnetic fields work.



13. Analyze the diagram above. Put a check above the substance that becomes magnetized when a magnet is brought nearby. How do you know this substance has become magnetized. _____

14. Analyze the diagram above. Put an X above the substance that does not become magnetized when a magnet is brought nearby. How do you know this substance is unmagnetized? _____

15. What is the difference in electron alignment with magnetic and non-magnetic substances when a magnet is brought nearby? _____

16. What happens to iron when a magnet is brought near it? _____

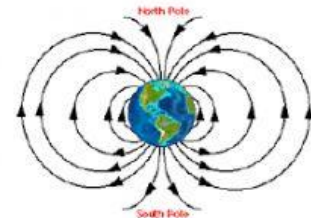
17. The force that a magnet exerts on certain materials, including other magnets is called _____. The force is exerted over a _____ and includes forces of _____

18. How can a magnet exert force over a distance without touching an object? _____

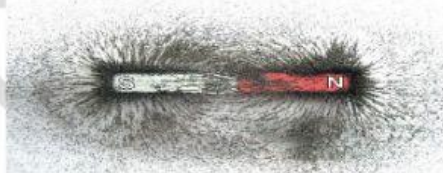
19. What is the relationship between magnet size and the force it exerts over a certain area? _____

20. Label the diagram of Earth and its magnetic field.

Explain why earth has such a large magnetic force and magnetic field.



21. Label the bar magnet with iron filings around it where the strongest and weakest forces are.



22. What happens to the magnetic fields and lines of force of north and south magnets? _____
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23. The closer you bring magnets together the more _____ that they have. They are either going to _____ or _____ each other. So the _____ the magnet, the more _____ or _____ force that it has. The smaller the magnet, the _____ attractive or repulsive force that it has.

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