

Learning Target: I will be able to explain and demonstrate that magnetic field lines exist between objects exerting forces on each other even when the objects are not in contact.

Magnets & Magnetic Field Lines Interactive Activity



Part 1 Instructions: Match the following terms to their correct definition.

Permanent magnet	Magnetized	Lodestone	Magnetic field
Magnetic poles	Electromagnet	Magnetic domains	Unmagnetized
Iron	Plastic, wood, glass	Magnetic force	Headphones, motors

- The force that a magnet exerts. _____
- Magnets that always have a magnetic field. _____
- Magnets whose magnetic fields can be turned on and off. _____
- Naturally occurring permanent magnet. _____
- Examples of electromagnets. _____
- Certain regions of a material that align with the Earth's external magnetic field. _____
- An invisible field that surrounds a magnet; protects Earth from harmful sun particles. _____
- The two ends of a magnet; north and south pole _____
- Substances whose electrons align towards a magnetic object are able to be _____
- Substances whose electrons do not align towards a magnetic object are _____
- Example of substances whose electrons do not align towards a magnetic object. _____
- Examples of substance whose electrons do align towards a magnetic object. _____

Part 2 Instructions: Look at the pictures below and choose/write the correct answer.





13. _____





14. _____





15. _____

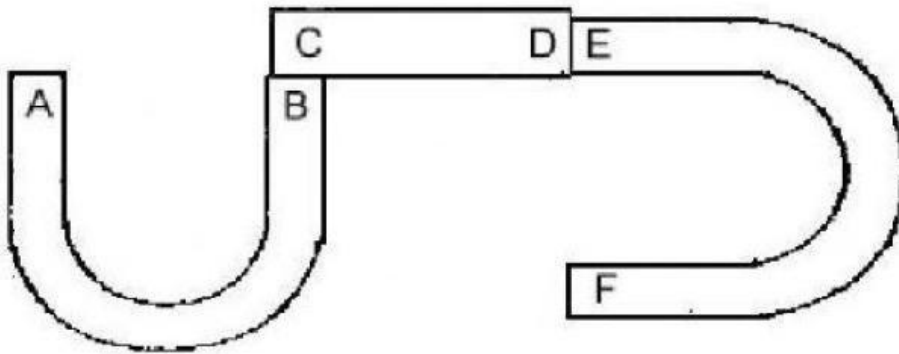




16. _____

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Part 3 Instructions: Analyze the pictures below and choose/write the correct answer.



If "B" is the North-pole of the magnet, what pole will A, C, D, E, and F be? North or South Pole?

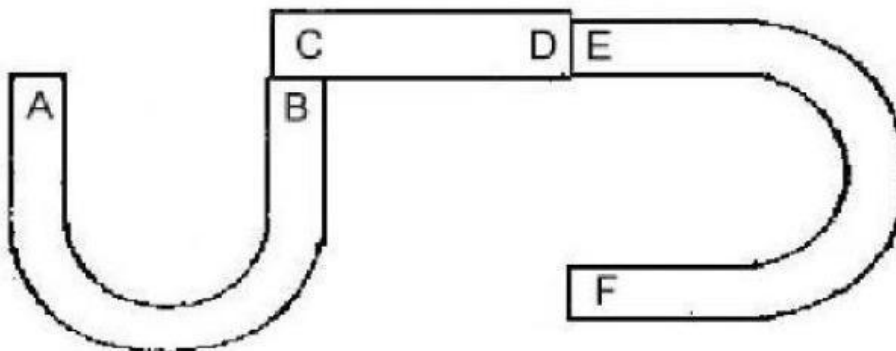
17. "A" = _____

18. "C" = _____

19. "D" = _____

20. "E" = _____

21. "F" = _____



If "F" is the South-pole of the magnet, what pole will A, B, C, D, and E be? North or South Pole?

17. "A" = _____

18. "C" = _____

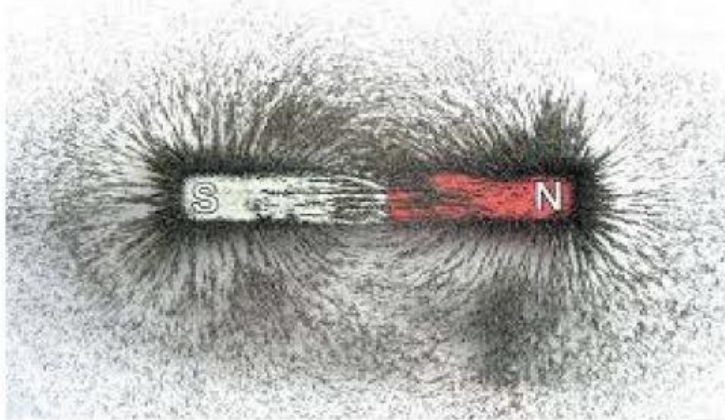
19. "D" = _____

20. "E" = _____

21. "F" = _____

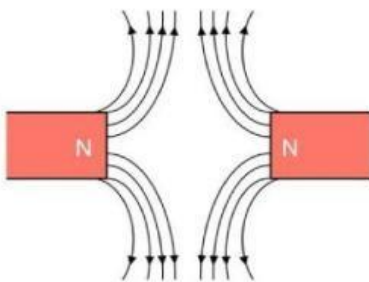
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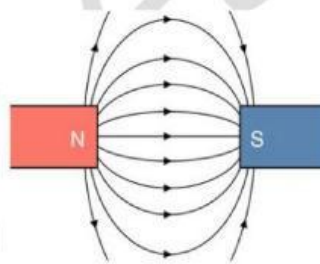
Part 4: Analyze the following diagram and answer the questions that follow.



22. Where is the strongest magnetic force on the magnet above? _____
How can you tell? _____

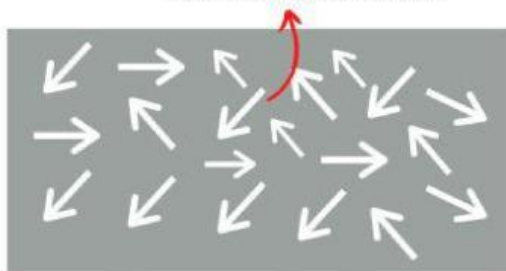
23. Will the magnetic field lines attract or repel?





24. Are the substances magnetized or unmagnetized?

Domains random



Domains lined up

