

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.

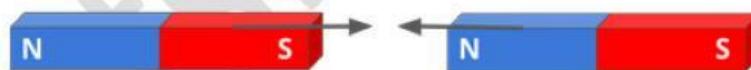
Permanent magnet	Magnetized	Lodestone	Magnetic field
Magnetic poles	Electromagnet	Magnetic domains	Unmagnetized
Iron	Plastic, wood, glass	Magnetic force	Headphones, motors

1. The force that a magnet exerts. _____
2. Magnets that always have a magnetic field. _____
3. Magnets whose magnetic fields can be turned on and off. _____
4. Naturally occurring permanent magnet. _____
5. Examples of electromagnets. _____
6. Certain regions of a material that align with the Earth's external magnetic field. _____
7. An invisible field that surrounds a magnet; protects Earth from harmful sun particles. _____
8. The two ends of a magnet; north and south pole _____
9. Substances whose electrons align towards a magnetic object are able to be _____
10. Substances whose electrons do not align towards a magnetic object are _____
11. Example of substances whose electrons do not align towards a magnetic object. _____
12. 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.



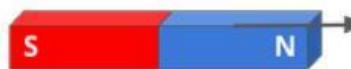
13. _____



14. _____



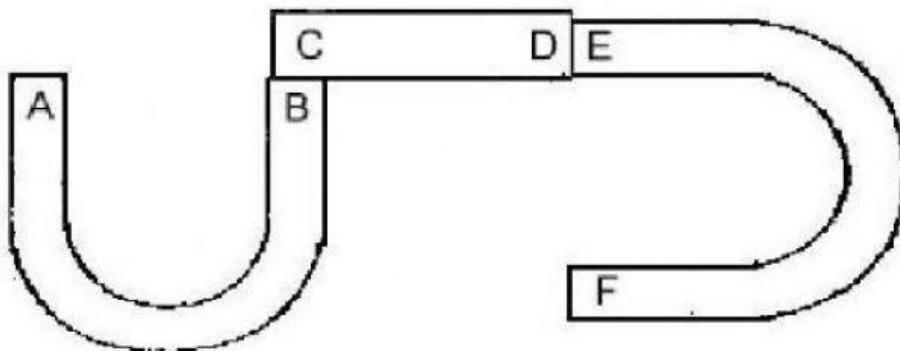
15. _____



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?

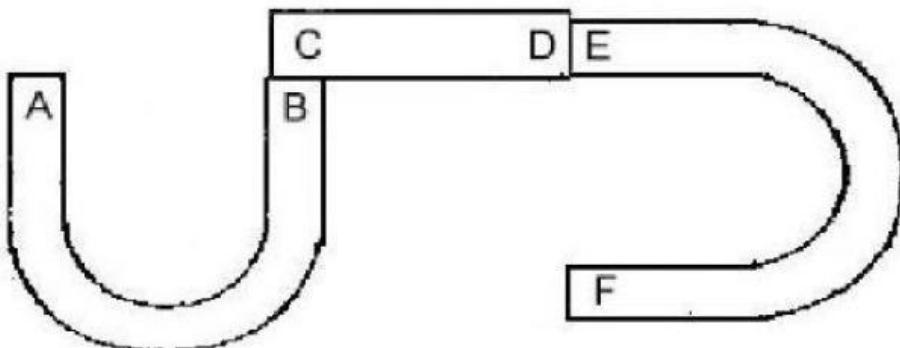
17. "A" = _____

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" = _____

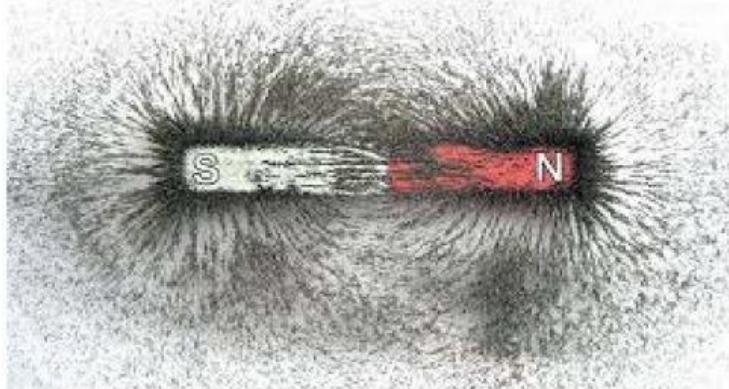
19. "D" = _____

20. "E" = _____

21. "F" = _____

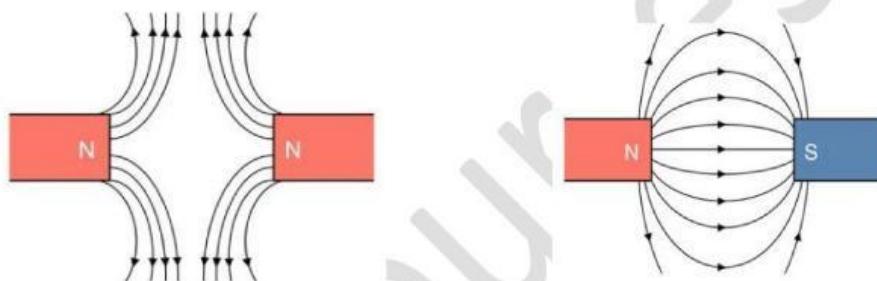
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Part 4: Analyze the following diagram and answer the questions that follow.



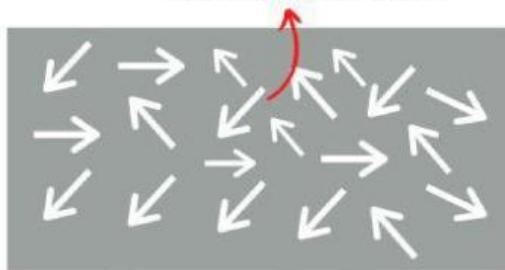
22. Where is the strongest magnetic force on the magnet above? _____
How can you tell? _____

23. Will the magnetic field lines attract or repel?



24. Are the substances magnetized or unmagnetized?

Domains random



Domains lined up

