

Magnet Fun II

1. Complete the Magnet Fun I award.
2. Play with two magnets making them attract each other. Play with two magnets making them repel each other.
All magnets have a _____ and _____ pole.
Opposite poles attract each other; same poles repel each other.
3. Make an electromagnet.
4. Use a compass to find all eight directions. Draw them on a compass rose.
5. Make a compass using a magnet, pan of water, long sewing needle, cork slice (or waxed paper), candle wax, and compass.
6. What happens when one drops a magnet?
7. Learn Proverbs 18:24: “A man that hath friends must show himself friendly; and there is a Friend that sticks closer than a brother.”

Who loves us so much that He will always stick closer than our real brother?

In fact, Jesus is our brother, because His Father is our Father. He is our Best Friend.

“Even though we are all different, we can still be attracted to God and to each other when we have one goal in mind—Heaven and pleasing Jesus.”



Helps

1. A magnet is made of magnetite, a natural magnetic material that will create a magnetic field. A magnetic field is the force surrounding a magnet that draws objects to the magnet. You can feel this force when using a magnet.
2. Many year ago there was a shepherd named Magnes. Each day he kept watch over his flocks. One cold, blustery day one of Magnes' lambs was missing from its mother's side. Neither Magnes nor the mother could locate the little lamb. He looked behind rocks, in the thicket, near the stream, and behind the bushes, and soon he realized it was really lost. He didn't believe a wild animal had stolen it or eaten it. He was sure he could find it if only he looked in all the right places. He stood on a large rock so he could look upon the landscape of the pasture in hopes of finding Whitey, the lost little lamb. As Magnes stood on a rock his sandals stuck to the rock where the nails in his sandals were located. He had never noticed that strange power before. Over a period of days and weeks, he brought other metal objects to the “magic rock” and found that iron, regardless of the size, would stick to the “magic rock.” He took some of the stone to his village and children, moms, and dads played with it. It became known as “Magnes' stone.” Today it bears part of his name in honor of his discovery—magnet. We call his “magic stone” a lodestone, which is made of magnetite, a natural magnetic material.

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3. (A) Permanent: once it is magnetized, it retains a level of magnetism. (B) Temporary: acts like a permanent magnet when it is within a strong magnetic field, but loses its magnetism when the magnetic field disappears. (C) Electromagnet: a special wire which acts like a permanent magnet when electrical current is flowing in the wire. For more detail see #1.
4. Refer to #1.
6. Hebrew 7:19: "...Christ makes us acceptable to God, and now we may draw near to him."
James 4:8: "And when you draw close to God, God will draw close to you." (Living Bible)

Resources

enchantedlearning.com

The Complete Book of Science for Grades 3 & 4 p. 265-280 (American Publishing, 2000)

World Book Encyclopedia, Vol. M. (World Book, 2016)