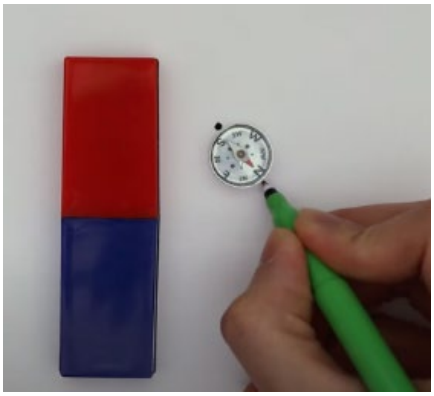
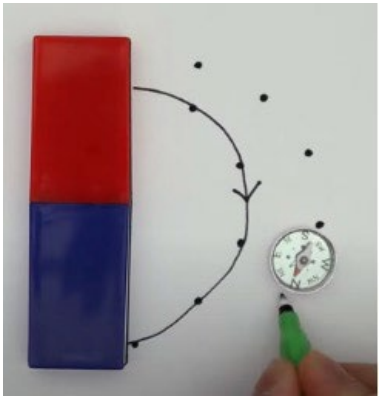
Modeling Magnetic Fields Handout

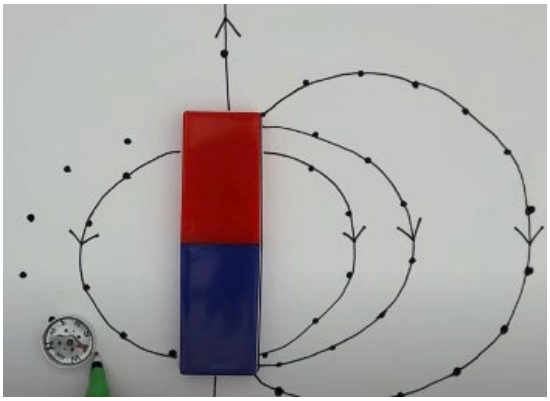
1. Trace one of the bar magnets on a piece of paper.
   *If you have a gyrocompass, you must orient the magnet to magnetic North.
2. Start by placing the compass next to the magnet, near one of the magnet's poles.
3. On the paper, mark where the needle is pointing with a dot.
4. Move the compass so that the back of the needle lines up with the dot. Repeat step 3, mark where the needle is pointing with a dot.



Step 4



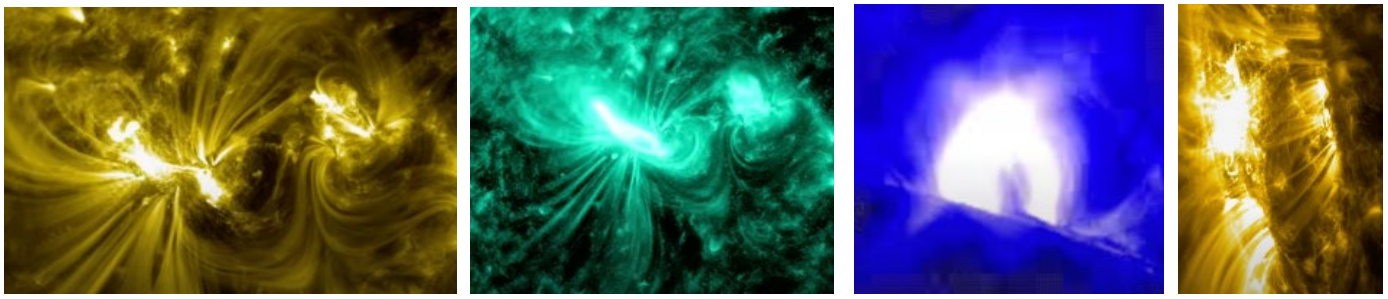
Step 6



Step 7

Credit: VT Physics

5. Repeat step 4 until your compass is touching the magnet at the opposite poles. Connect the dots.
6. Repeat steps 2-5, starting at different points near the pole of the magnet, tracing the magnetic field lines.
7. Repeat steps 2-6 on the other side of the magnet.



Magnetic field lines seen in solar Flares and CMEs.
Credit: NASA

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