

# The Truth About Magnets Answer Key

**Directions:** Magnetism is an invisible force that attracts or repels! Can you identify the true statements about magnetism? Mark the true statements with a T and mark the false statements with an F. After making all the statements, go back and modify the false statements so they are correct.

- F   1. If a magnet is floated on a cork in water and balanced on a sharp point, one end will point east and the other will point west.
- T   2. James Clerk Maxwell proposed the idea of electromagnetism.
- T   3. Magnets are used in electric motors.
- F   4. Iron is a permanent magnet.
- T   5. The magnetic field is strongest around the poles of a magnet.
- T   6. An electric charge creates a magnetic field.
- F   7. The core of an electromagnet is a piece of steel put in the center of the coil.
- T   8. An electromagnet is a coil of wire with a current flowing through it.
- F   9. Magnetic poles that are alike attract one another.
- T   10. A magnet is an object that can exert a force on another metal.
- T   11. A magnetic field is a region around a magnet where the magnetic force acts.
- F   12. One end of a magnet has a stronger magnetic force than another.
- T   13. Unlike magnetic poles attract one another.
- T   14. Earth is considered a magnet.
- F   15. Magnetic poles that are different repel one another.

## False Statements:

## Possible Correction:

1. If a magnet is floated on a cork in water and balanced on a sharp point, one end will point east and the other will point west.	If a magnet is floated on a cork in water and balanced on a sharp point, one end will point NORTH and the other will point WEST.
4. Iron is a permanent magnet.	Iron is NOT a permanent magnet.
7. The core of an electromagnet is a piece of steel put in the center of the coil.	The core of an electromagnet is a piece of IRON put in the center of the coil.
9. Magnetic poles that are alike attract one another.	Magnetic poles that are UNLIKE attract one another.
12. One end of a magnet has a stronger magnetic force than another.	Both ends of a magnet have EQUAL force.
15. Magnetic poles that are different repel one another.	Magnetic poles that are different ATTRACT one another.