

Differentiate, distinguish, compare and explain what is the main difference between electromagnet and permanent magnet. Comparison and Differences.

## Difference between Electromagnet and Permanent Magnet

| S.No. | Electromagnet  | Permanent Magnet   |
|-------|--|--|
| 1     | Electromagnet is temporary as it exhibits magnetic force only when current flows through it. | Permanent Magnet as the name say is a permanent magnet.      |
| 2     | Produces very strong magnetic force.   | Produces comparatively much weaker magnetic force.           |
| 3     | Strength can be changed.   | Strength cannot be changed.                                  |
| 4     | Polarity can be changed.   | Polarity cannot be changed.                                  |
| 5     | Electromagnets are very strong as compared to permanent magnets.                             | Magnetism property gets weaker over time or if gets dropped. |
| 6     | Electromagnets need electrical energy.   | Permanent magnets need no outside energy.                    |
| 7     | Discovered in 1820.  | Discovered long 2000 years ago.                              |