Hello, sir/ma'am,

I am Anirudh Vempati, grade 8 of Unicent school.

I'd like to provide the following article for the NIE paper: -

**Title: " Electromagnets: How to Make Your Own Temporary Magnet at Home"**

Article:

Have you ever been curious about how magnets are made or wanted to create your own? Look no further than the electromagnet. This innovative type of magnet is formed when a current-carrying conductor, like a wire, produces a magnetic effect. The discovery of this phenomenon was first made by Danish physicist and chemist Hans Christian Oersted in 1820.

A solenoid, which is a cylindrical coil that acts like a bar magnet when a current flows through it, is used in the creation of an electromagnet. By passing an electric current through the solenoid, the electromagnet becomes magnetic. However, keep in mind that the magnetism is temporary, and will disappear once the current stops flowing.

It's simple to create an electromagnet at home with just a few items: an iron nail, insulated copper wire, a battery, and sandpaper. Be sure to use wire with thin insulation - wires from a plug point will have insulation that's too thick. Wind the wire around the nail several times and sand the edges of the coil to remove any insulation. Then, connect one end of the wire to the negative terminal of the battery and the other end to the positive terminal.

Experimenting with different wire gauges and battery voltages is a great way to see how they impact the strength of your electromagnet. The creation of an electromagnet is an excellent way to learn about the relationship between electricity and magnetism. It may even inspire you to invent something that uses electromagnets in the future.

In conclusion, making an electromagnet is not only informative but also fun and easy. Anyone can create their own temporary magnet at home with just a few simple materials. It's an excellent way to learn about this unique type of magnet and explore the fascinating connection between electricity and magnetism.

by Anirudh Vempati