

The Largest Magnet

What is a magnet? A magnet is an object that has a magnetic field. This field cannot be seen. It gives the magnet its special abilities. The magnet can pull on metal materials. The magnet can attract or repel other magnets.

Magnets have two poles. The poles always come in pairs. They cannot be separated. Opposite poles repel each other. Like poles attract each other.

Can you guess what is the biggest magnet on Earth? Here's a hint. A magnet's two poles are called the north pole and the south pole. Does that sound familiar? That's right - the biggest magnet on our planet is the Earth itself!

The Earth has a shallow crust that covers a thick mantle of rock. Under the mantle there is a core of liquid metal. Under the liquid is a solid metal center. The metal is mostly iron.

The movement of electrical charges in the Earth's core create its magnetic field. The field surrounds the Earth for thousands of miles. The field blocks radiation from the sun. If the field did not exist, the radiation would kill all the life on Earth.

It is good that the Earth has a magnetic field. But it is also good that the Earth's magnetic field isn't very strong. If it were, all of our metal objects would be pulled to the North Pole!



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NAME: _____ DATE: _____

1. Which of the following is NOT mentioned as an ability of magnets?
 - a. They pull on metal materials
 - b. They attract other magnets
 - c. They spin on an axis
 - d. They repel other magnets

2. Which part of the Earth creates the magnetic field?
 - a. The core
 - b. The mantle
 - c. The ocean
 - d. The crust

3. Why is it good that the Earth has a magnetic field?
 - a. Because it pulls metal towards the poles
 - b. Because it protects life from the sun's radiation
 - c. Because it extends thousands of miles into space
 - d. Because it keeps the Earth spinning

4. If the Earth encountered a twin Earth magnet, what would happen to the two North Poles?
 - a. They would attract each other
 - b. They would pull all the metal objects
 - c. They would turn into South Poles
 - d. They would repel each other

Instructions for teachers:

These questions can be used to assess understanding of the reading passage.

The item in bold is the correct answer for each question.

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