

20 Minute  
Activity  
For  
Everyone

## Homemade Compass

The compass was invented nearly 2000 years ago, following the discovery of naturally magnetized minerals. The first records of early compass use came from China, using the compass to align buildings and city structures as well as to look for rare gems and fertile farmland. Approximately 1000 years after the compass was invented, it became the main tool of navigation around the globe, which is still used today. Though the compass is an ancient tool, using household objects, we can make our own, following the same process as our ancestors.

Click the video link below to learn the steps to creating your own homemade compass.



<https://www.youtube.com/watch?v=QiSp6pGe0w0>

### How Does A Compass Work?

A compass works by detecting the Earth's natural magnetic fields. The Earth has an iron core that is part liquid and part solid crystal due to gravitational pressure. It is believed that movement in the liquid outer core is what produces the Earth's magnetic field. Like all magnetic fields, the Earth's has two main poles, a north and a south pole. This is how a compass' magnetic needle will always align with either the north or south pole, providing direction.

### Reflection Questions:

- How did making your own homemade compass make you feel?
- Did you feel more connected to the past when making your compass? Why?
- What other questions do you have now that you've learned about the Earth's magnetic field?
- What other modern tools do you think have historic importance?

### Materials Needed:

- A Needle
- A Common Magnet (Any fridge magnet will work)
- A Piece of Cork
- Water
- A Non-Metallic Bowl
- *Optional: Compass to test your homemade compass*