

Materials

- · Two balloons
- · Lighter or candle
- Water
- Bucket
- · Safety goggles

Safety Notes

- · Using a lighter or being around an open flame can be dangerous. This experiment should only be done with the supervision of an adult.
- · As the balloons will eventually pop, it can make a very loud sound. Try covering your ears to help with the sound!

Instructions

- · Inflate one balloon and tie the end. This balloon represents Earth's atmosphere.
- · Hold the balloon away from your face and hold the lighter beneath it. Take note of how long it takes for the balloon to pop.
- · Make a water balloon. This balloon represents Earth's oceans.
- · Hold the balloon over the bucket and hold the lighter beneath it. Take note of how long it takes for the balloon to pop.

How It Works

Water can absorb much more heat than air can, so it takes significantly longer for the water balloon to pop. Around the world, the burning of fossil fuels like coal, oil, and natural gas is causing an increase in carbon dioxide in the atmosphere. This traps the heat of the planet like a blanket, causing the oceans, land, and atmosphere to warm. Because water can absorb more heat than the air, approximately 90% of the warming that has happened over the past 50 years has occurred in the ocean. How might warming water temperatures affect animals like fish, seals, and whales?







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