



THUNDERCRACKERS

You Will Need:

- ⚙️ A thunder and lightning storm



Instructions

Can you tell how far away a storm is? Here is a simple way to find out.

1. The next time a big thunderstorm occurs, watch for the lightning. As soon as you see the flash in the sky, start counting "thundercracker 1, thundercracker 2, thundercracker 3," and so on. (The time it takes you to say "thundercracker", followed by the number, equals about a second). Stop counting when you hear the clap of thunder.
2. Now divide the number of seconds you have counted by 5. The result will be the distance of the storm center. For example, suppose you had counted to "thundercracker 10" when you heard the big boom: $10 \div 5 = 2$. The storm is about 2 miles away.
3. You can repeat the procedure on the next bolt of lightning. If the storm is closer this time, you know that it is traveling toward you. Better get inside!

This Is What Happens:

Light travels at a speed of 186,000 miles per second, so you see a bolt of lightning almost instantly when it occurs. Sound, however, travels much slowly - at a speed of only 1/5 mile per second. When you see a bolt of lightning, you know that the sound has just started to travel. By determining how long it takes to reach your ears, you can figure out how far away it was.



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