Arctic Sundial

Materials

- $\cdot\,$ Straight stick about two feet long
- Small rocks or small seashells

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- \cdot A watch
- · Chalk (optional)
- Sand (optional)
- Bucket (optional)

Instructions

- Find a sunny spot and push the stick vertically straight into the grass or earth. If your backyard doesn't have any grass or earth, fill a small bucket with sand and place your stick into the bucket.
- Start in the morning when the sun is up. At 7:00am, use a small rock or seashell to mark where the shadow of your stick falls. Come back at 8:00am, 9:00am, 10:00am, and so on until there is no more daylight in the day. You may want to mark your pebbles with the time they were placed using chalk.
- \cdot By the end of the day your sundial will be complete.

How It Works

The sun's light will make your long stick cast a shadow. The shadow will change it's angle depending how the sun's light is hitting the stick because our earth is constantly rotating and revolving around the sun.

Extra Experiments

Measure how long the shadow that is cast by the stick is. Measure it in Winter and Spring. Are the measurements different? Which season has the longer shadow? Make a second sundial after we reset our clocks each year. How are the two sundials similar? How are they different?



