

Create a Weather Station

Weather affects summer activities, like our STARBASE rocket launch. **What activities do you have this summer that could be affected by weather?**

3 weather factors that will affect outdoor activities:

1. Air Pressure -> Construct a barometer
2. Wind Speed -> Build an anemometer
3. Rainfall -> Create a water gauge



How will the change in air pressure help us to make predictions for upcoming weather?

How could you improve the design of the anemometer you created?

Why is measuring rainfall important? How does it impact farming, water supply, and your own summer activities?

Use this formula to calculate the number of rotations while using your anemometer

| Experiment Location | Number of Rotations in 20 sec. | Number of Rotations per Minute | Number of Rotations per Hour |
|---------------------|--------------------------------|---|--|
| Front of House | 10 rotations | $10 \times 3 = 30$ rotations per min. (20 seconds \times 3 = 60 sec) | $30 \times 60 = 1800$ rotations per hour (rotation per min. \times 60 min = rotations per hour) |
| | | $\times 3 =$ rotations per min. | $\times 60 =$ rotations per hour |