

PM_{2.5} Daily Air Quality Index (Real-World Data Graph)

Focus: Learn about air quality and health. Track the **highest** daily air quality index (AQI) for PM_{2.5} in your area. Look for patterns over time. What do you think those patterns mean?

Steps:

1. **Print page 2 and post** in your room or on a bulletin board.
2. **Make a plan** (pick one day each week to check air quality).
3. **Check the air quality.** Go to www.lovemymyair.com/wisconsin/Home/Map.
4. **Click on the sensor closest to your school** and click “view.”
5. **Look at the past week** (7 days).
6. **For each day, find the highest AQI by color.**
 - **AQI Guide:** [See Love My Air’s Activity Guide](#)
 - On the chart, write the date in the box and color it to match the highest AQI for that day.
 - You can also write the time of day when it peaked.

Example:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10/5/25 10 a.m.	10/6/25 9 a.m.	10/7/25 9:30 a.m.	10/8/25 4 p.m.	10/9/25 3 p.m.	10/10/25 4 p.m.	10/11/25 1 p.m.

7. **Keep coloring each box** to show the highest AQI for each day of the past week until you reach today. **Do not color today’s box.** The AQI might change before the day ends. You can record today the next time you check.
8. **Use your data to ask and answer questions** after you have complete several weeks.
 - Do you notice any patterns? (Weekday vs. weekend, breaks, etc.)
 - Is a graph like this useful?
 - Do you have more questions?
 - Do we need more data to answer those questions?

Outcome: Use real-world data to address standards in your subject area!

Extension:

1. **Keep collecting data.** Print page 2 and fill it out for many months.
2. **Compare** what you see with data from reference monitors.

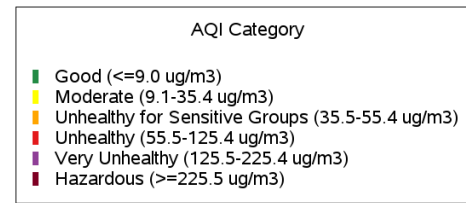
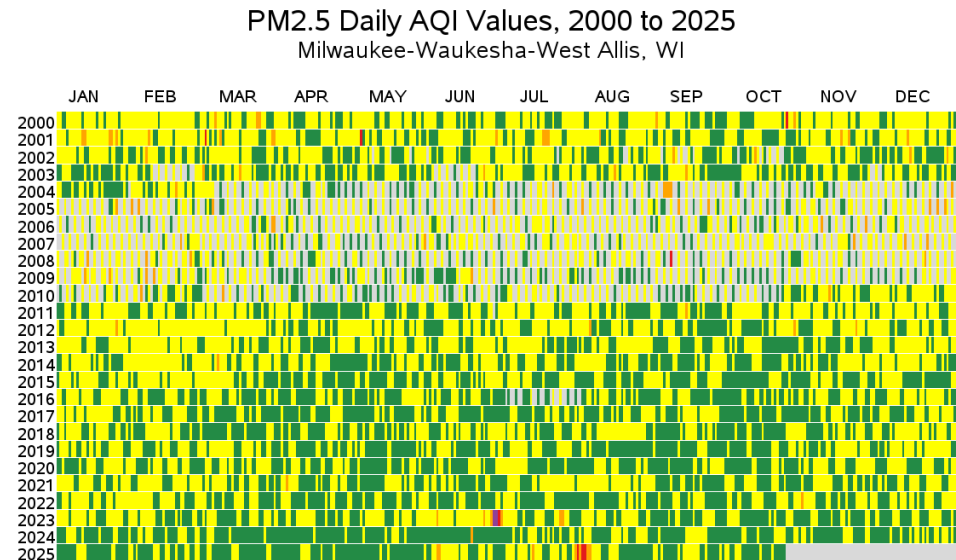
How to look at the highest daily AQI data from a reference monitor:

1. **Visit** www.epa.gov/outdoor-air-quality-data/air-data-multiyear-tile-plot
2. **Fill out the correct information:**

- Pollutant: Particulate Matter 2.5 (PM_{2.5})
- Period: Select your dates (you can even select multiple years).
- Geographic area: Enter your location.
- Monitor site: All sites or pick one (check the location when you create data).
- AQI colors: Select your choice.
- Click “Plot Data.”

3. **The Environmental Protection Agency will create a chart like yours.** Ask questions that address your learning standards.

- An image like this will be made. →



Source: U.S. EPA AirData <<https://www.epa.gov/air-data>>
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