Air Pollution Mystery Programme

An extension programme investigating monthly worst air quality days

Monthly Air Pollution Mystery – an EarthLearn extension programme

Requirements: IQAir outdoor air quality monitor and VisualAir app; Air Pollution Detective School notebook extracts
7-14 years: teacher-led class or small group activity (individual school risk assessment for activity required)
Curriculum: Science (investigation, observation; analysis, atmosphere, air pollutants); English (written; oracy)
Time: 20 minutes class-time each month

EarthLearn supplies IQAir monitor, remote installation support, and education expertise to develop bespoke Air We Breathe learning menu meeting your specific curriculum needs (£500 excl VAT).

1. Follow the menu created to provide learners with an introduction to particle air pollution and clean air.
2. At beginning of each month, review monitor data via app and identify the day in the previous month when the Air Quality Index (AQI) was highest (particle pollution was greatest).
3. Record manually the AQI, temperature, PM2.5 and PM10 values for that day. Can you remember/ find out about weather that day? Did it rain? Was it windy? Did another event occur affecting particles in the air?
4. Have a look at the Air Pollution Detective School notebook extracts provided and discuss what may have caused the worst air quality day you identified?
5. Repeat monthly and compare your findings at different times of year.

We also offer an international sustainability option which supports collaboration across schools globally.
Contact us to find out more at: enquiries@theearthmuseum.co.uk

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Air Pollution Detective School Notes

High PM10 and Low PM2.5

Construction work
Dusty weather
Pollen season
Close to roads

High PM10 and high 2.5

Heavy traffic
Wood burning
Industrial emissions

Low PM10 and High PM2.5

Busy roads
Queuing vehicles
Idling engines
Colder weather – fires lit for heating
Wildfires
Salt from the sea near coast
Lots of people doing above activities

Weather climate Notes

Windy days whip up particles into the air

Calm air (often linked to high pressure) will trap pollution near the ground (also happens when warm traps layer of cold air)

Seasons affect air quality in temperate areas