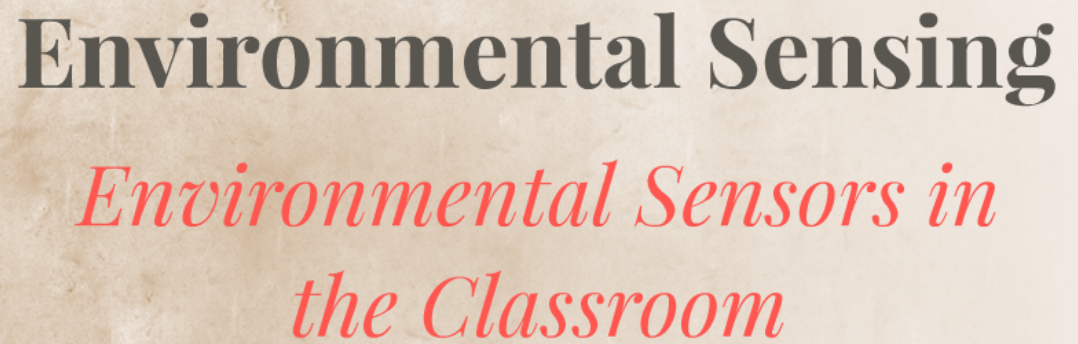




ASPPH Fellow hosted by USEPA
mcintosh-kastrinsky.rachel@epa.gov



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Introduction



Why?

Sensor

Use

Quality

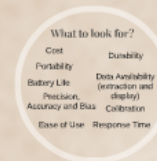
Interpretation



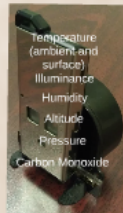
Sensors

Cost Availability Media

My Sensors



Sensordrone



Pros

Portable Many parameters
Durable Data Availability
Ease of Use

Cons

Battery Life
Need Device

Air Quality Egg



Pros

Only need internet
Long-term
No recharge

Cons

Accuracy Response time
Portability Data availability Need direct connection

Air Quality Monitor



Vaavud



Water Quality Meter



Nitrate Kit

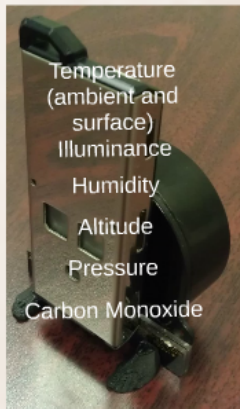


My Sensors

What to look for?

Cost	Durability
Portability	Data Availability (extraction and display)
Battery Life	Precision, Accuracy and Bias
	Calibration
Ease of Use	Response Time

Sensordrone



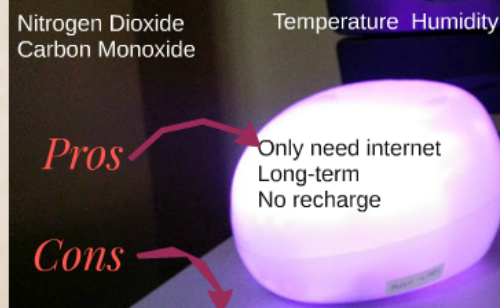
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Air Quality Monitor



Vaavud



Water Quality Meter



Nitrate Kit



What to look for?

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Durability

Portability

Data Availability
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Battery Life

Precision,
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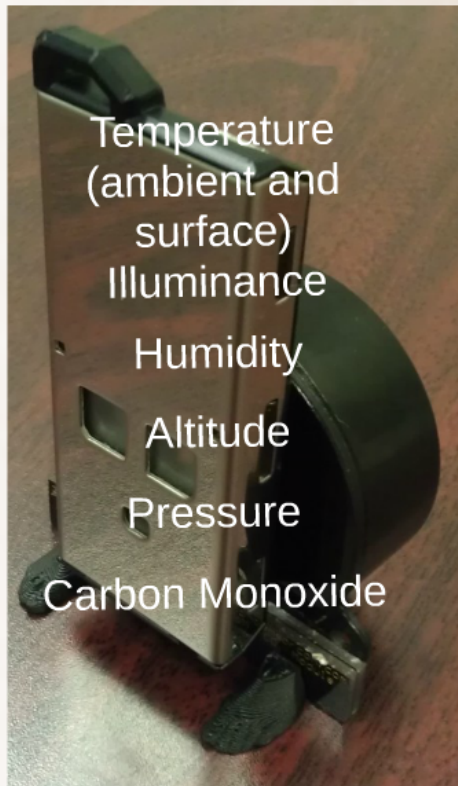
Calibration

Ease of Use

Response Time

IVLY SENS

Sensordrone



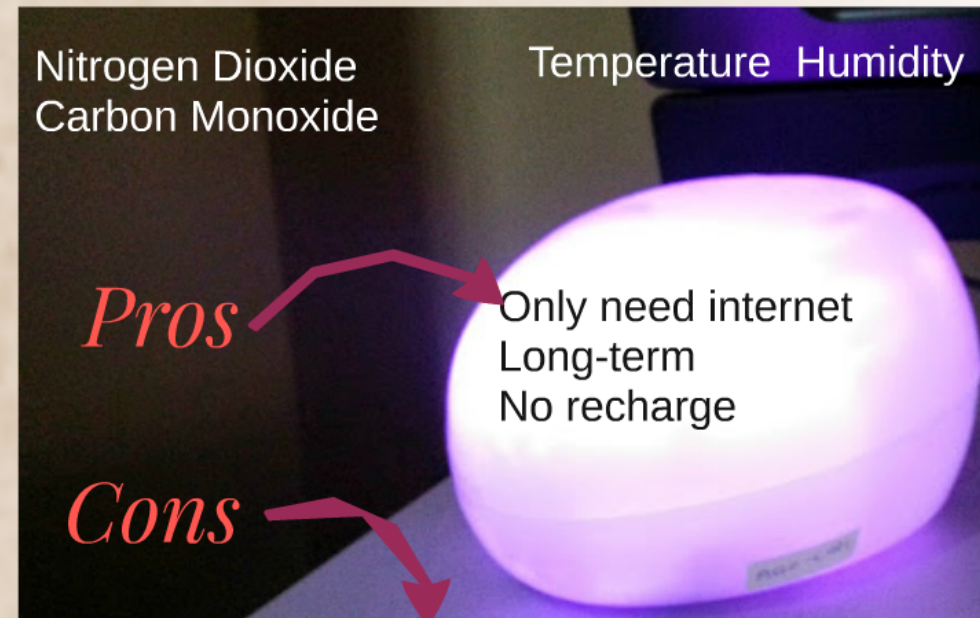
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Vaavud



Water Quality Me

CITIZEN SCHOOLS



6th and 7th grade
10-weeks



Class Structure

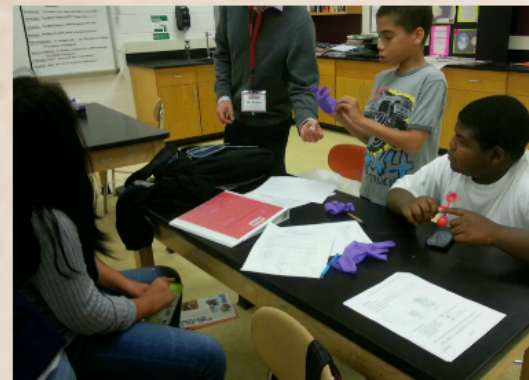
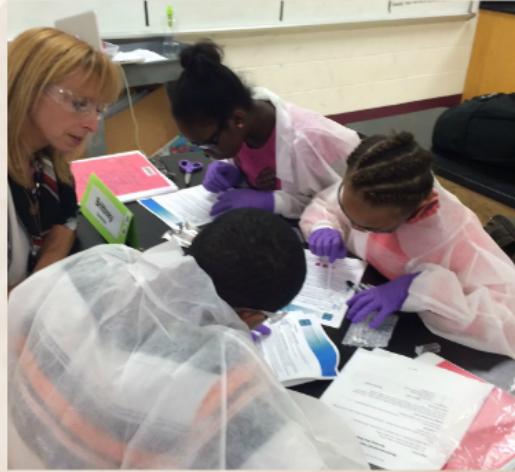


Brief lectures

*Interactive
activities*

Groups

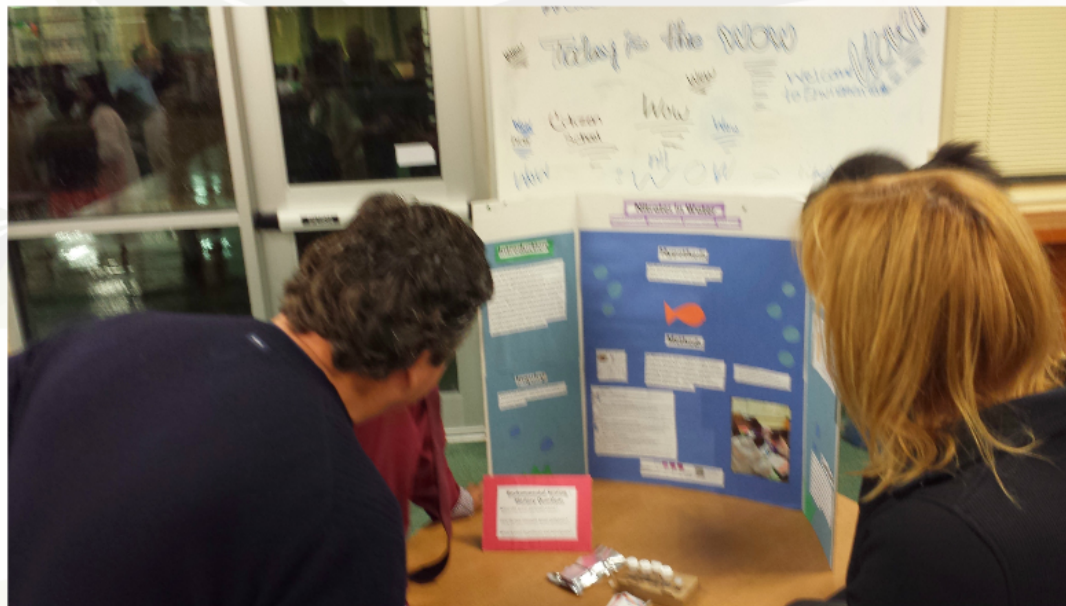
What they did





What they learned

*Teaching back to their
community*



The WOW!



Summary



Next Steps

Lesson Plans – Language – Citizen Science



Conclusion

*Sensor education
and outreach*

Sensor use

Sensor quality

Sensor data interpretation



Thank you



Neal Middle School
STEM Academy of Engineering and Design





Environmental Sensing

Environmental Sensors in the Classroom

Rachel McIntosh-Kastrinsky

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