

TAKING DATA TO THE NEXT LEVEL

Jeffrey R. Bouwman
GLOBE ENSO Field Campaign
Tuesday, October 18, 2016
8:00 p.m. (EST)



#GettingScienceDone



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Shumate Science



Shumate Science

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Publishing Tools



Shumate Science
Middle School



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1 person visited this week.

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292 likes +5 this week



Status



Photo / Video



Write something...

Contact Information:

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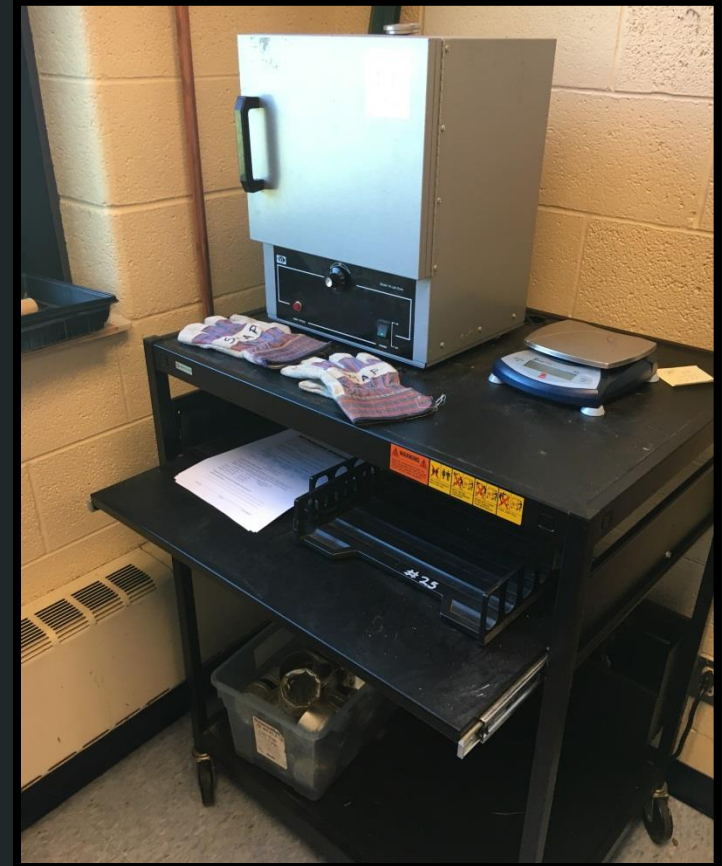
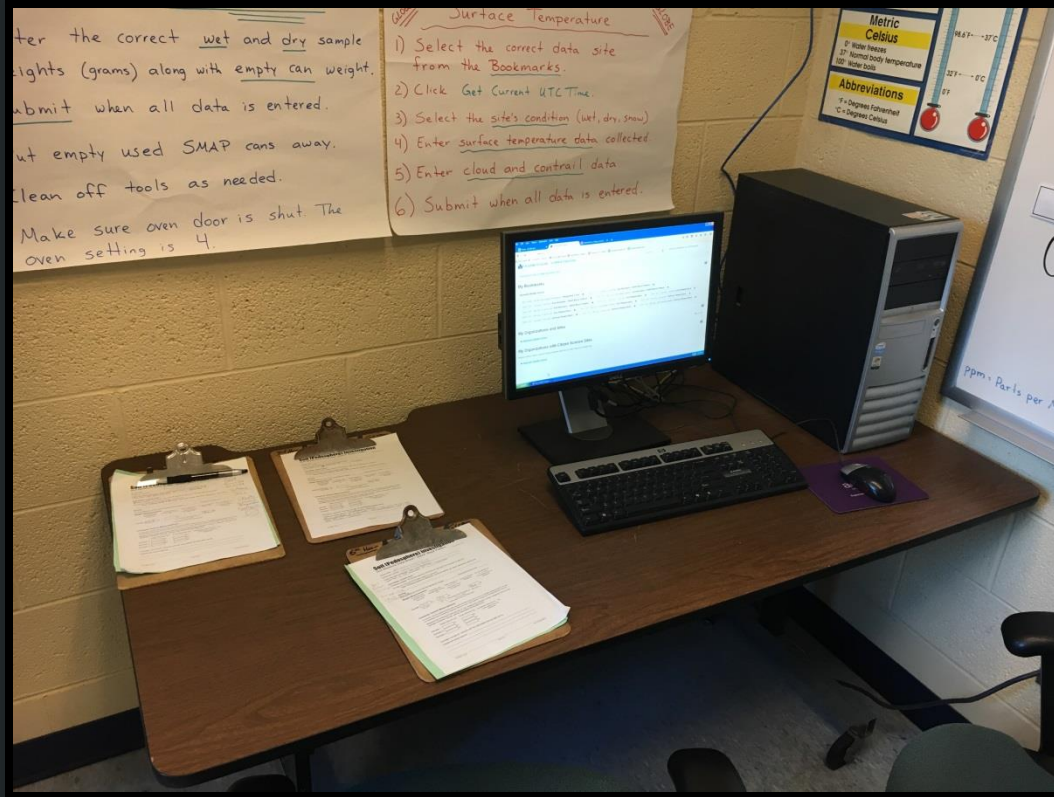
Facebook: Shumate Science

Twitter: @jeffbouwman

Current Data – Shumate Middle School

Site Name ▼	Investigation Area	Number of Reports	Date Activated
WeatherSTEM (Temperature)		3774	09/16/2016
Mrs. Hoover - GLOBE Rain Gauge (Precipitation)		214	02/09/2016
2016 - 2017 - 6th Hour - 300 Hallway Sidewalk		102	09/13/2016
2016 - 2017 - 5th Hour - Science Lab		130	09/13/2016
2016 - 2017 - 3rd Hour - Locust Tree		130	09/12/2016
2016 - 2017 - 2nd Hour - The Pond		128	09/12/2016

Get an Organized Work Space



Post Your Directions

Soil Moisture Data

SMAP - Soil Moisture Active Passive

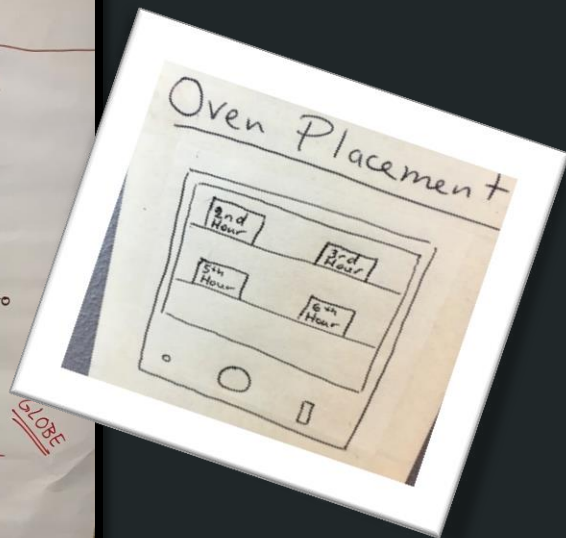
- 1) Select the correct data site from the Bookmarks.
- 2) Enter the correct date and local (military) time.
- 3) Dry Method - Oven 75 95 Degrees C
- 4) Calculate Dry Time (24 hours/day)
- 5) Enter the correct wet and dry sample weights (grams) along with empty can weight.
- 6) Submit when all data is entered.
- 7) Put empty used SMAP cans away.
- 8) Clean off tools as needed.
- 9) Make sure oven door is shut. The oven setting is 4.

Soil Temperature

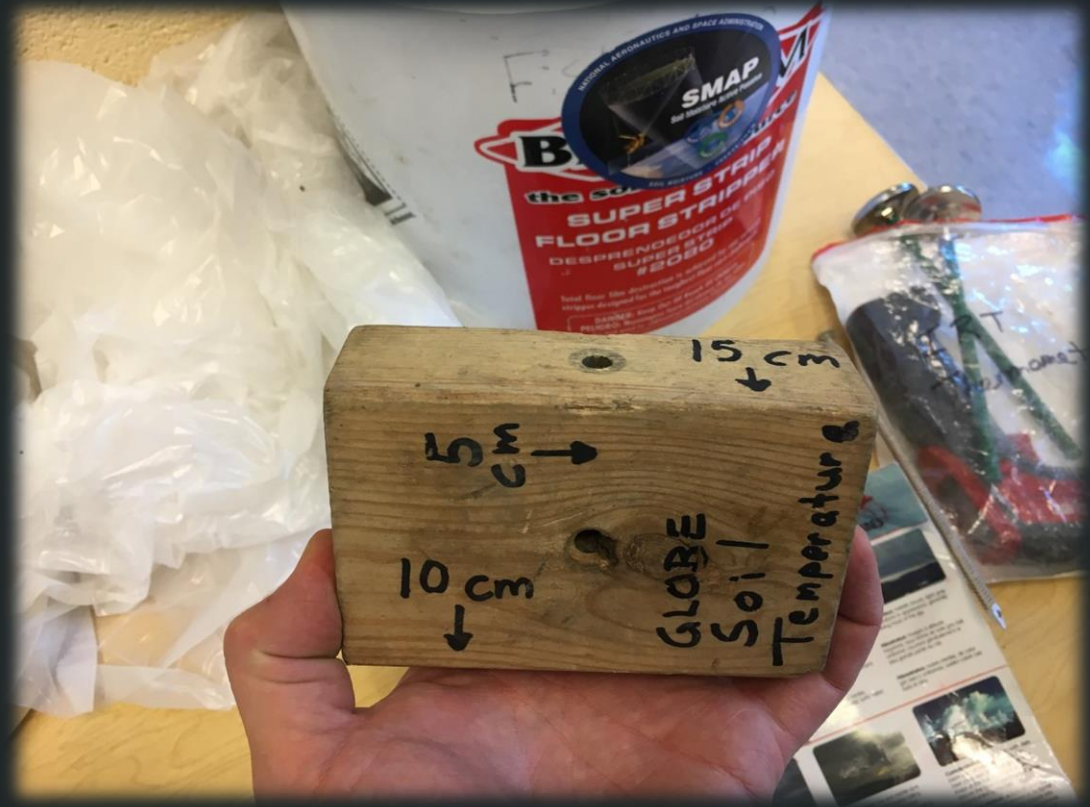
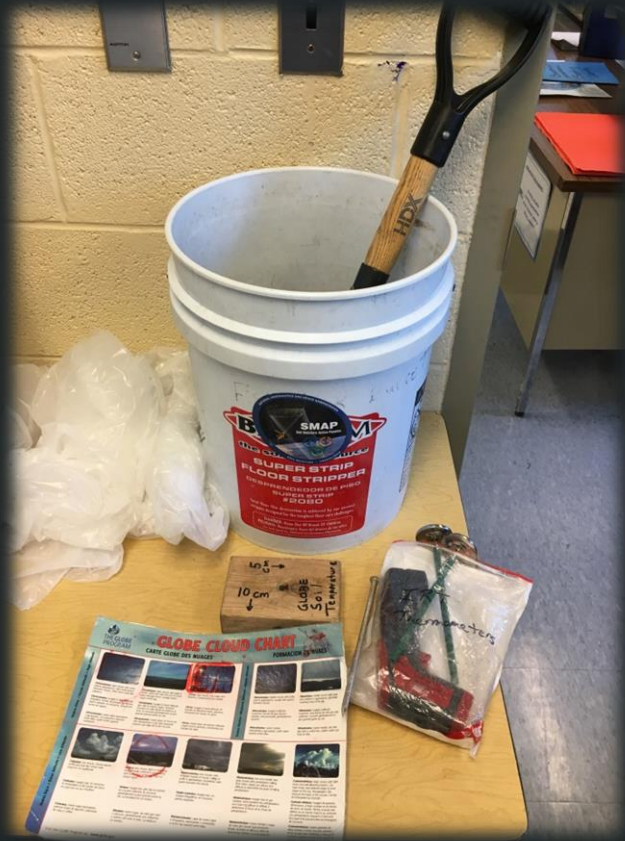
- 1) Select the correct data site from the Bookmarks.
- 2) Click Get Current UTC Time.
- 3) Thermometer Type - Other Soil or Air.
- 4) Convert your Fahrenheit measurements to Celsius. * Use the Internet to convert.
- 5) Enter data and submit.

Surface Temperature

- 1) Select the correct data site from the Bookmarks.
- 2) Click Get Current UTC Time.
- 3) Select the site's condition (wet, dry, snow)
- 4) Enter surface temperature data collected.
- 5) Enter cloud and contrail data.
- 6) Submit when all data is entered.



Have Your Tools Ready to Go



Get Creative!



Jeff Bouwman @jeffbouwman · Oct 6

Ever see a solar noon @GLOBEProgram rain gauge & an early morning @CoCoRaHS rain gauge in the same spot?! Now you have! #GettingScienceDone



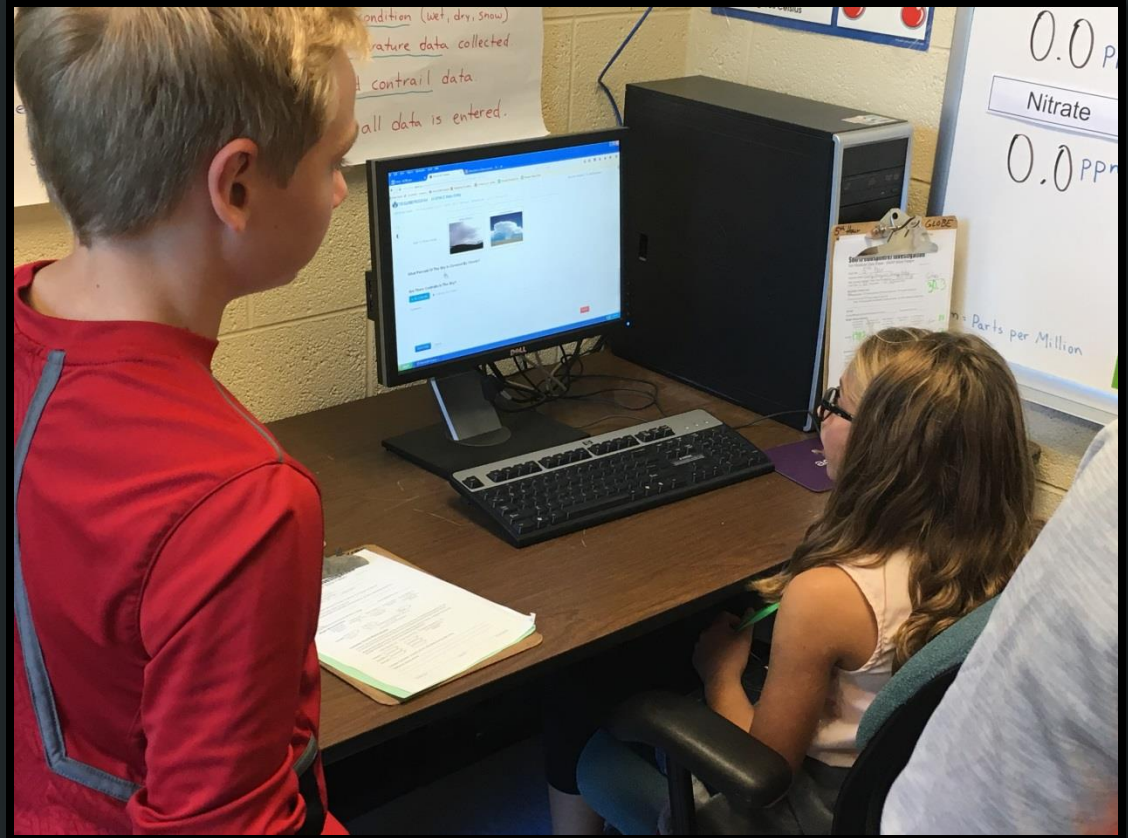
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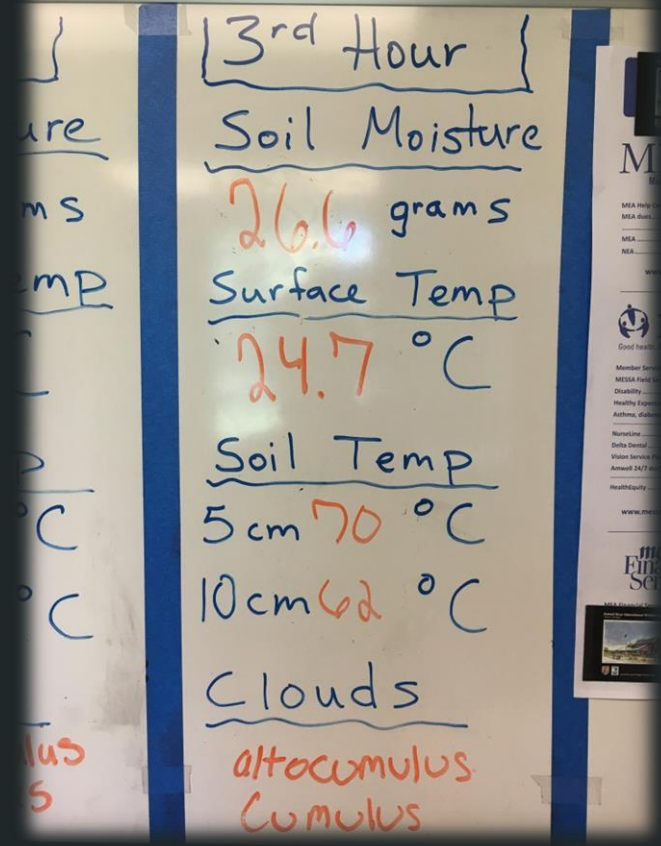
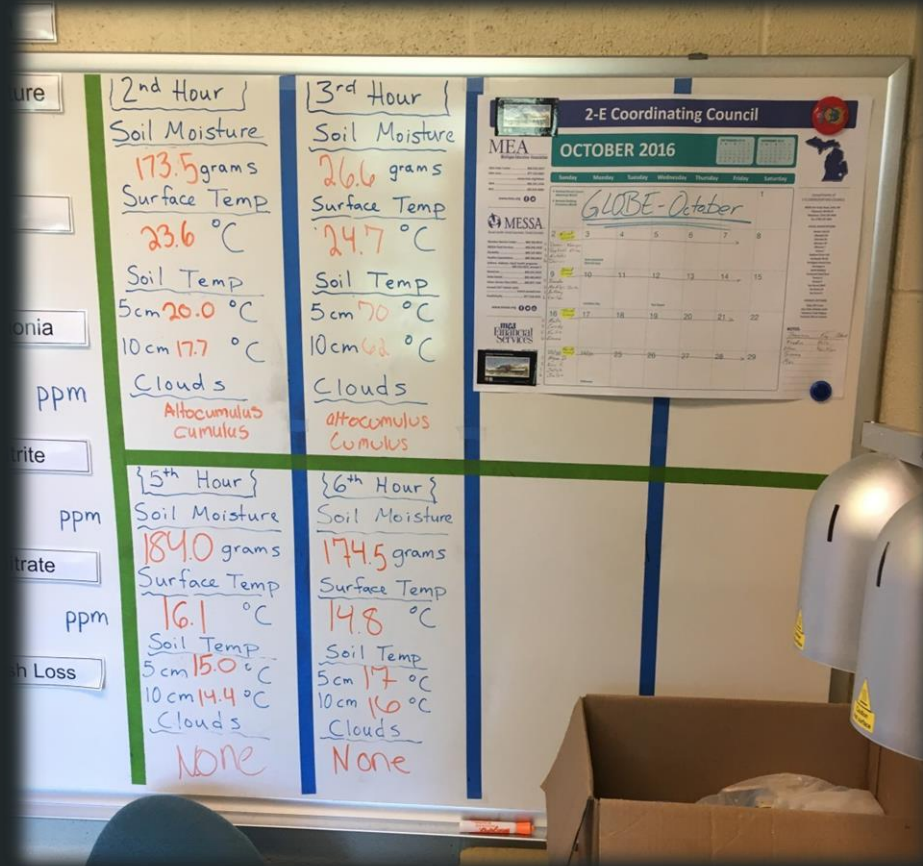
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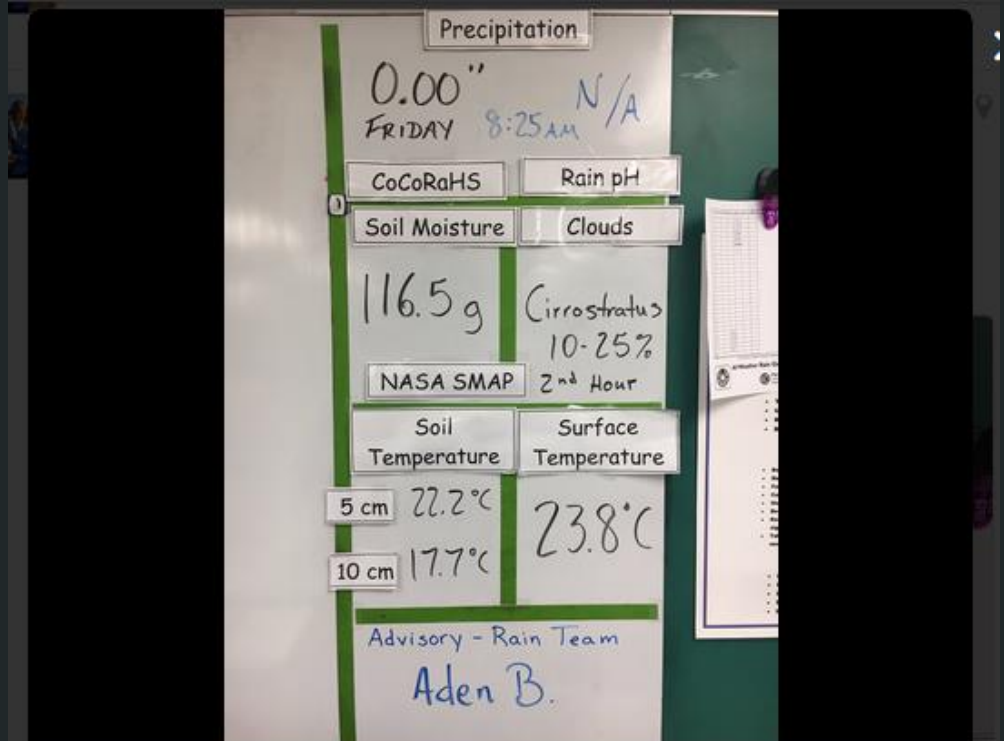
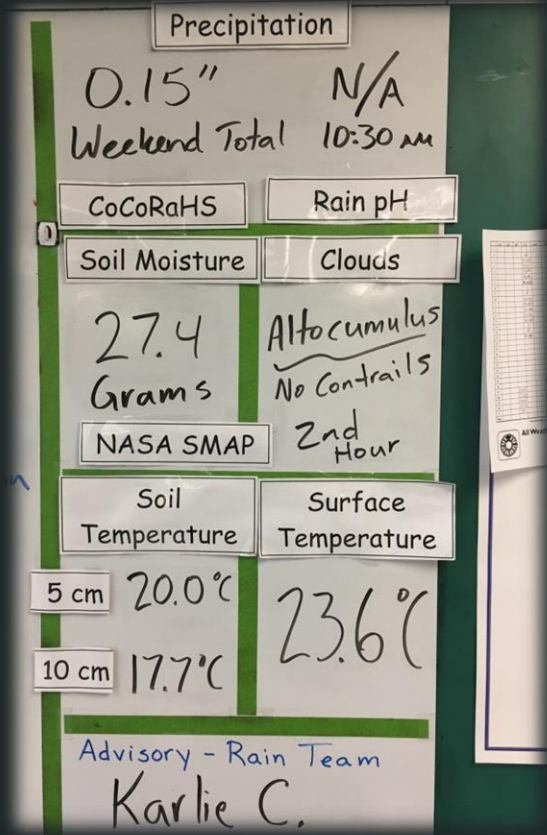
Train the Trainers – Student Leaders



#DataSMASH – Surround Your Students with Data



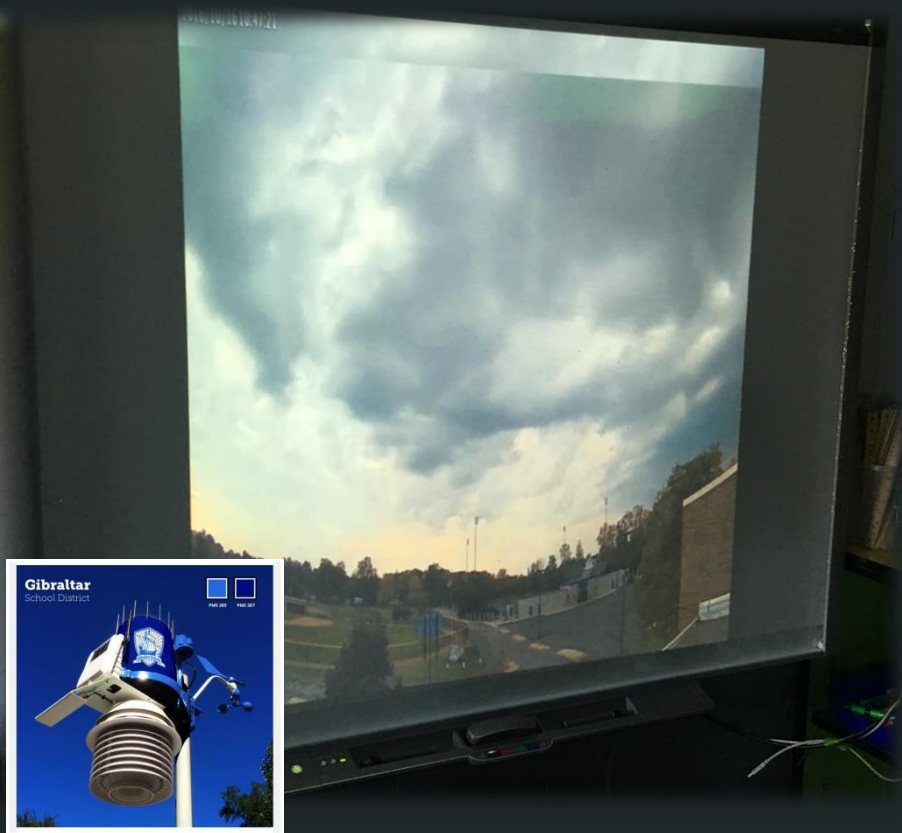
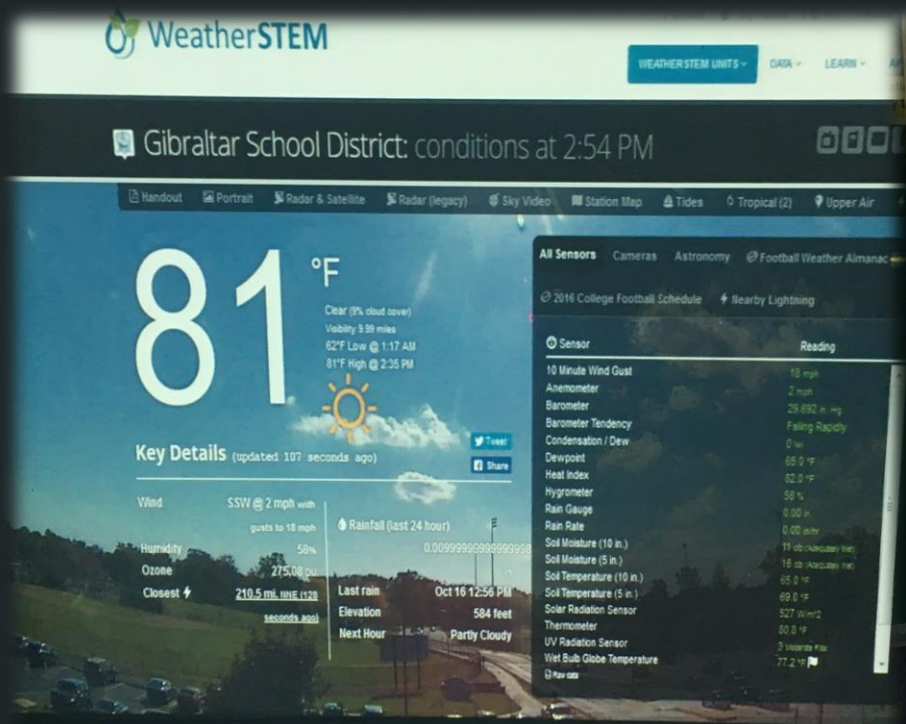
#DataSMASH – Surround Your Students with Data



Jeff Bouwman @jeffbouwman · Oct 7

Friday, October 7, 2016 Real World Data @GLOBEProgram
@CoCoRaHS @PGLocal4 #GettingScienceDone

#DataSMASH – Surround Your Students with Data



#DataSMASH – Surround Your Students with Data

Stations:

MI-WY-116
Gibraltar 0.8 SW
Lat: 42.085555
Lon: -83.211045

* indicates Multi-Day Accumulation Report

Station

MI-WY-116

Date	Precip in.
10/01/2016	**
10/02/2016	**
10/03/2016	0.58 *
10/04/2016	0.01
10/05/2016	0.00
10/06/2016	0.03
10/07/2016	0.00
10/08/2016	**
10/09/2016	**
10/10/2016	0.00 *
10/11/2016	0.00
10/12/2016	0.00
10/13/2016	0.06
10/14/2016	0.00
10/15/2016	**
10/16/2016	**
10/17/2016	0.15 *
Totals :	0.83 in.

RAIN TODAY

- Kay - MI-WY-87 - 0.51"
- Bouwman - MI-WY-116 - 0.54"
- WeatherSTEM - 0.57"
- Turley - MI-WY-69 - 0.54" I
- Hoover - GLOBE - 12.2 mL
- O'Neill - MI-WY-88 - 0.19" O
- L. Spano - MI-WY-113 - 0.60" #

GLOBE Goals

Graph Data from the Data Board

Students have Chromebooks...
Use Google Spreadsheet! Discuss!

#DataSMASH

Continue combining GLOBE,
CoCoRaHS, & WeatherSTEM data.

WeatherSTEM Protocol

Help launch a WeatherSTEM protocol.

Most Important

Create GLOBE Projects
with our students!



Clouds	Precipitation
CirroStratus	2.06" 10:30am
Rain pH	SPRING BREAK
N/A	CoCoRaHS MI-WY-69
	Soil Moisture
	98.3 grams
	NASA SMAP
	Soil Temperature
	5 cm 6 °C
	10 cm 7 °C
	Surface Temperature
	51 °C



Any Questions?