

Survey of Exploris- Middle Drinking-Water

401 Hillsborough Street
Raleigh, North Carolina 27603 November
22, 2019

Grayson Cuffe/ gcuffe@exploris.org

Andrew Durham/ adurham@exploris.org

Bennett Gaskins/ bgaskins@exploris.org

Elijah McArthur/ emcArthur@exploris.org

Thabiso Stephenson/ tstephenson@exploris.org

Protocol and kit from PollutionDetectives.org.

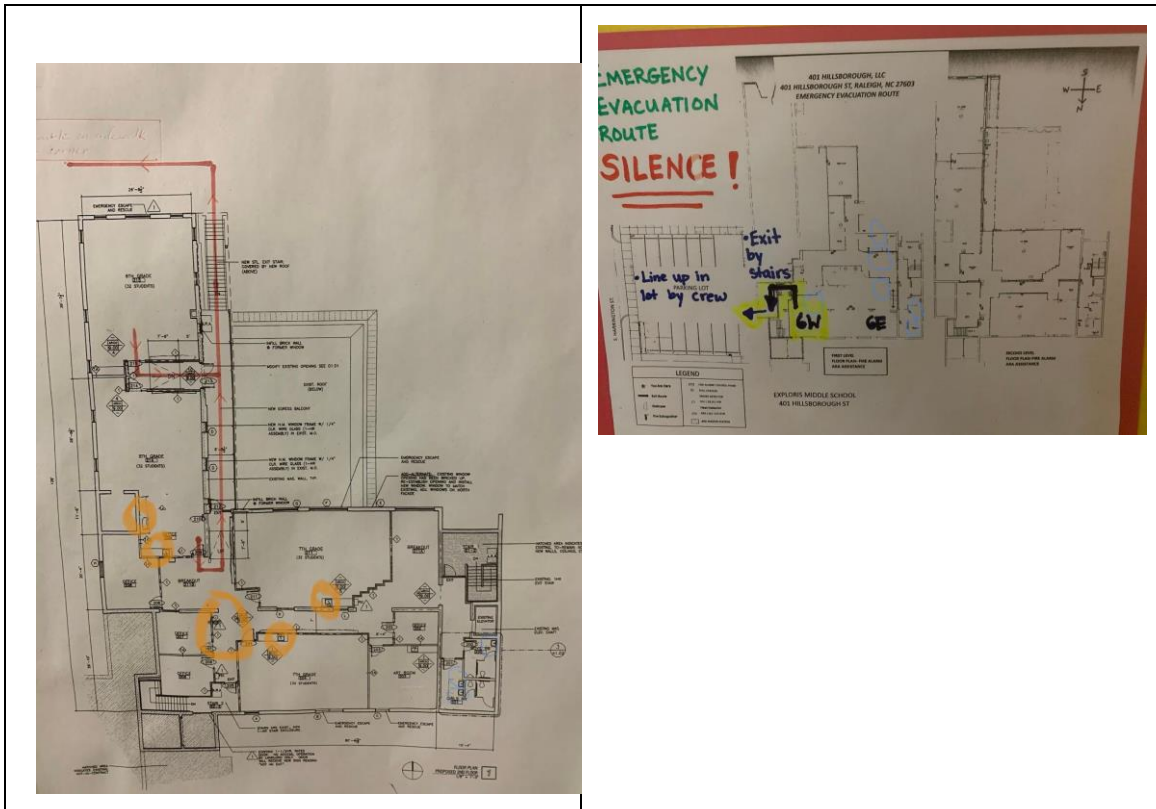
Dr. Koster/ fkoster@thepollutiondetectives.org

Donna Papalski/ donnas@thepollutiondetectives.org



Preparation to Test

- Letter from Ed Buchan, City of Raleigh Utilities explaining the issue of lead in school water, and encouraging us to test our school's water. [LINK](#)
- Permission to Test from Executive Director Ellie Schollmeyer - [LINK](#)
- Signed Receipt of Test Kit - [LINK](#)
- Protocol form Pollution Detectives - [LINK](#)
- Grayson Emailed to Faculty - Do Not Use Water - [LINK](#)
- Map of School (below)



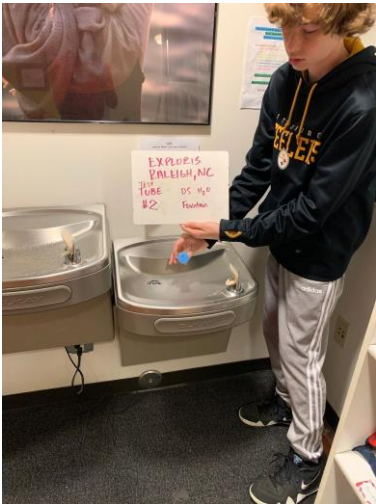
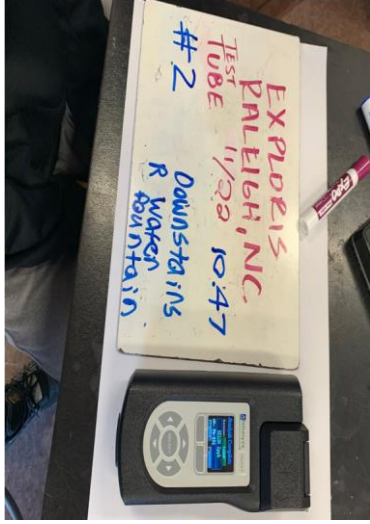


Calibration

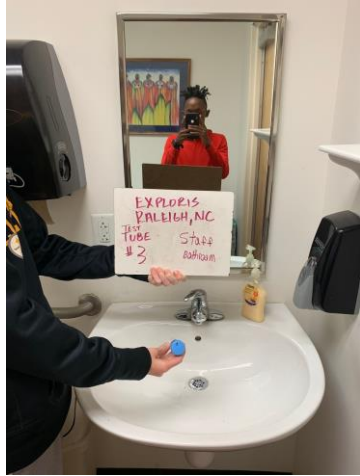


For collaboration, a took a brand new water bottle and put it into a tube with buffer and then i pulled out lead using the 100 pF syringe and then I pulled out 10 mL off the water and inserted it in the machine and then next we took 10 mL out of the bottled water sample with buffer in it and inserted it into the machine and the collaboration was complete.

Location & Results

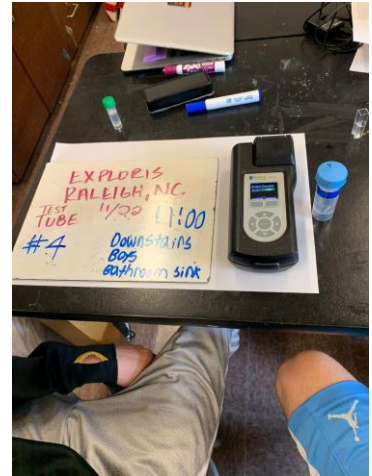
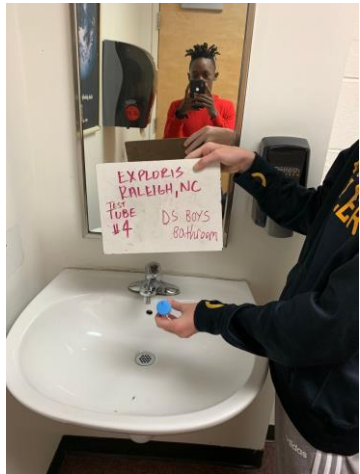
Test Tube #	Location	Results
1		
2		

3

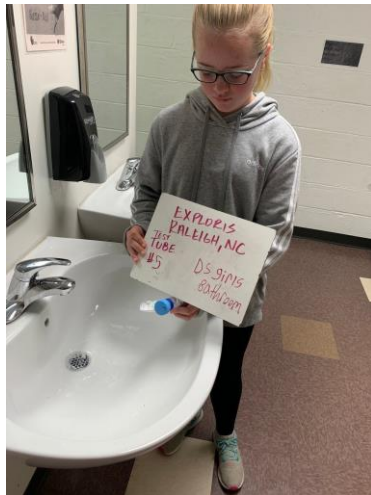


lost

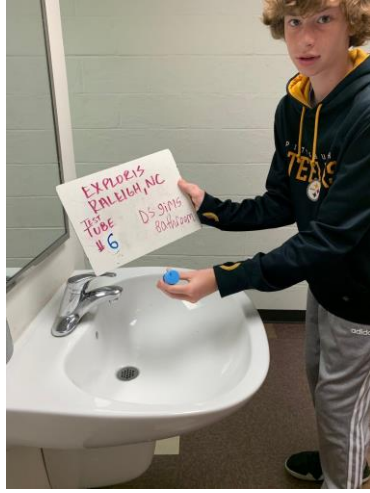
4



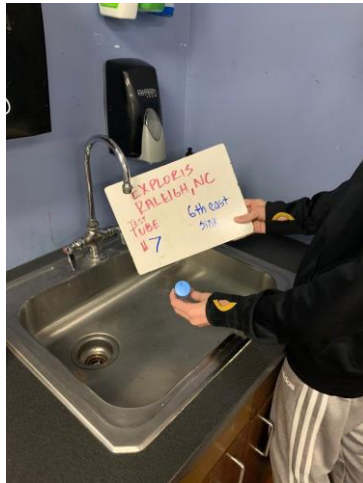
5



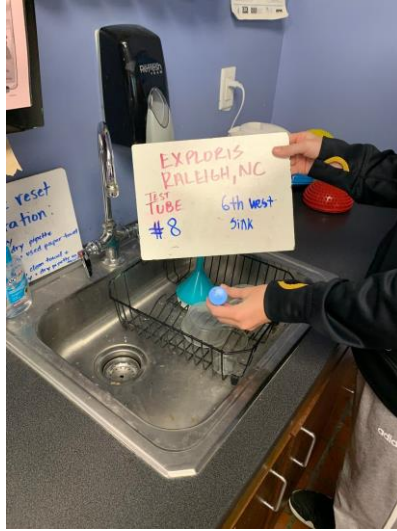
6



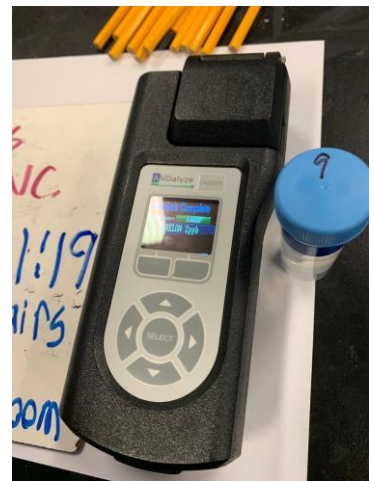
7



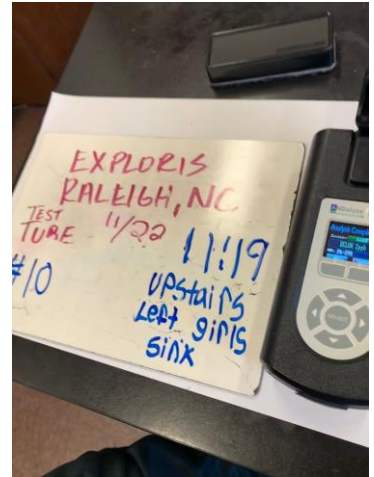
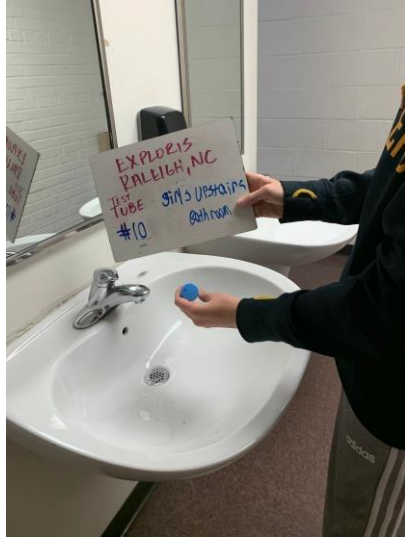
8



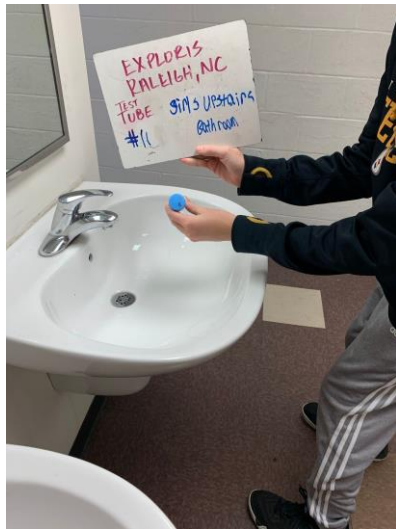
9





10



11



12		
13		
14		
15		Not enough test packs to test.
16		Not enough test packs to test.
17		Not enough test packs to test.

Data Log

Test Tube #	Results (>2ppb concern, >15ppb legal action)	pillow pack color	water temp	time	date	location	
1	<2ppb	deep blue	72f	10:38	10.22.19	Downstairs Left Water Fountain	
2	<2ppb	deep blue	70f	10:49	10.22.19	Downstairs right Water Fountain	
3	lost tube						
4	<2ppb	deep blue	70f	10:59	10.22.19	downstairs boys bathroom	
5	<2ppb	deep blue	70f	11:02	10.22.19	downstairs girls bathroom	
6	<2ppb	deep blue	70f	11:05	10.22.19	downstairs right girls sink	
7	<2ppb	deep blue	70f	11:11	10.22.19	downstairs 6 east sink	
8	<2ppb	deep blue	70f	11:18	10.22.19	downstairs 6 west sink	
9	<2ppb	deep blue	70f	11:20	10.22.19	upstais boys bathroom	
10	<2ppb	deep blue	70f	11:25	10.22.19	upstairs left girls sink	
11	<2ppb	deep blue	71f	11:30	10.22.19	upstairs right girl sink	
12	<2ppb	deep blue	70f	11:34	10.22.19	artroom sink	

13	<2ppb	deep blue	70f	11:41	10.22.19	upstairs 7 north sink	
14	<2ppb	deep blue	70f	11:46	10.22.19	upsairs 7 south sink	
15	<2ppb	deep blue	70f	11:50	10.22.19	upstaris waterfounta	
						in	

Conclusion one paragraph about findings

Students' Reflections:

Personal Reflection on Learning

You can talk about communication with professionals, chemistry, procedures for lab work that you think is interesting, thoughts about responsibility when testing something so important. Any personal realization how serious water quality is? Each of you write about 100-300 words.

Grayson Cuffe - This was the first experience that I've had that was like this where we had to be precocious and had to follow every step carefully and were using tubes, and needles that was so important. This was an interesting experience for me because it was so professional and mattered a lot that my whole group had to be serious about during the process.

Andrew Durham - Bennett

Gaskins - Elijah

McArthur-my reflections

Thabiso Stephenson -

Dr. Koster's Reflection -

"Students are taking the lead and testing the school's drinking water for lead."