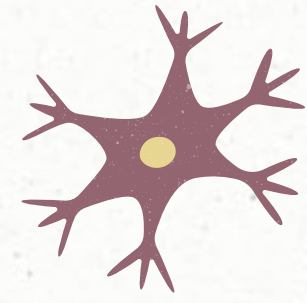
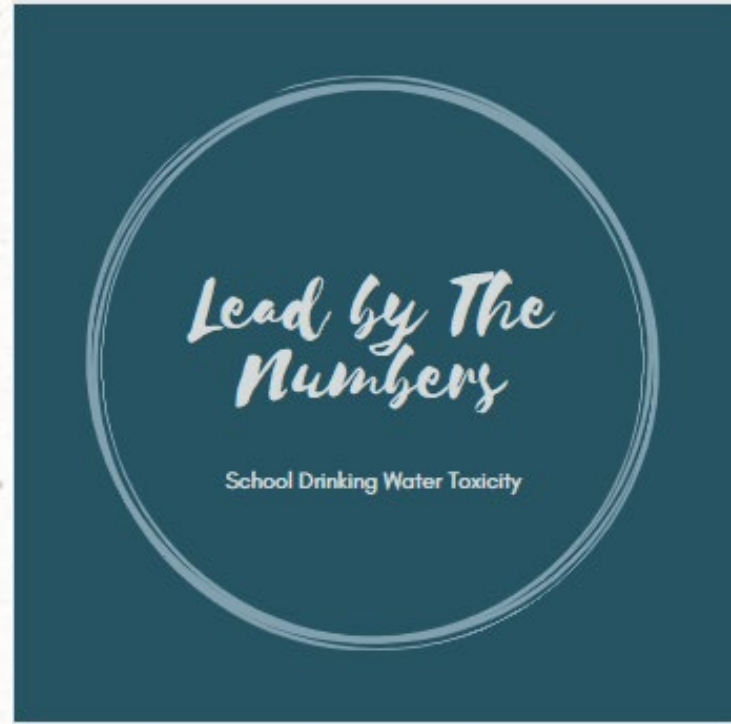


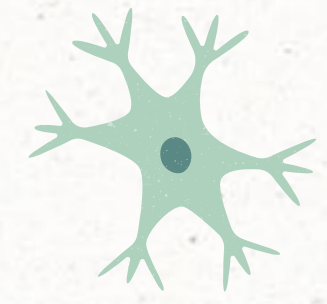
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Lead By the Numbers

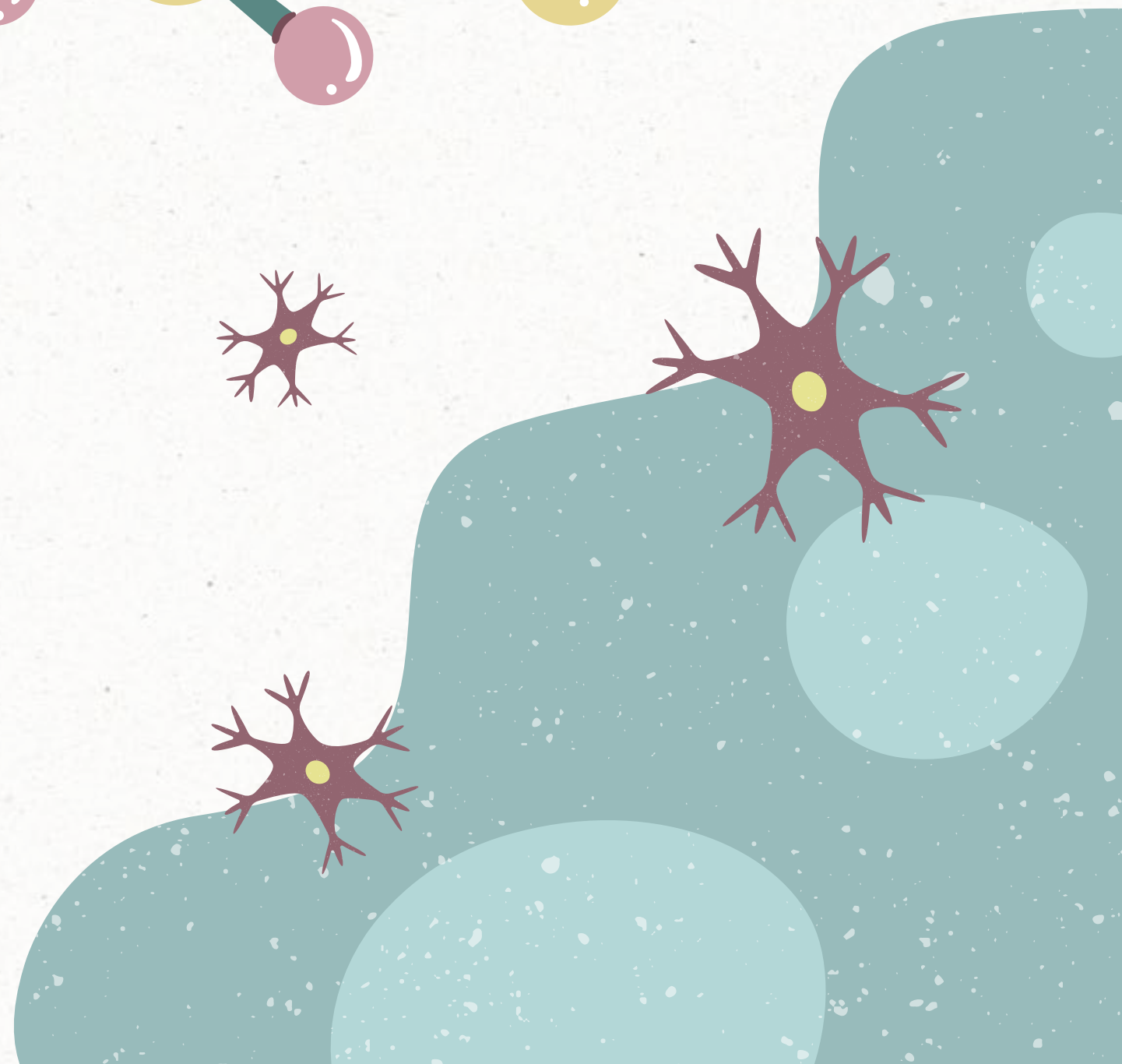
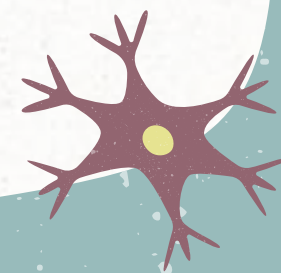
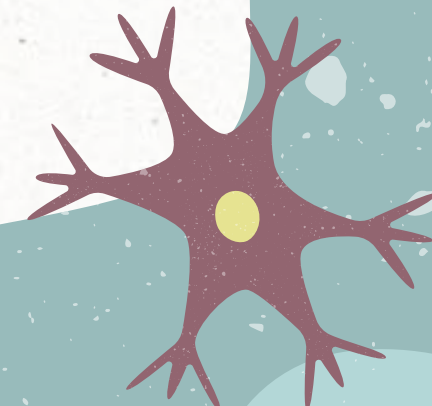
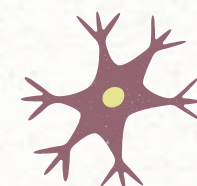
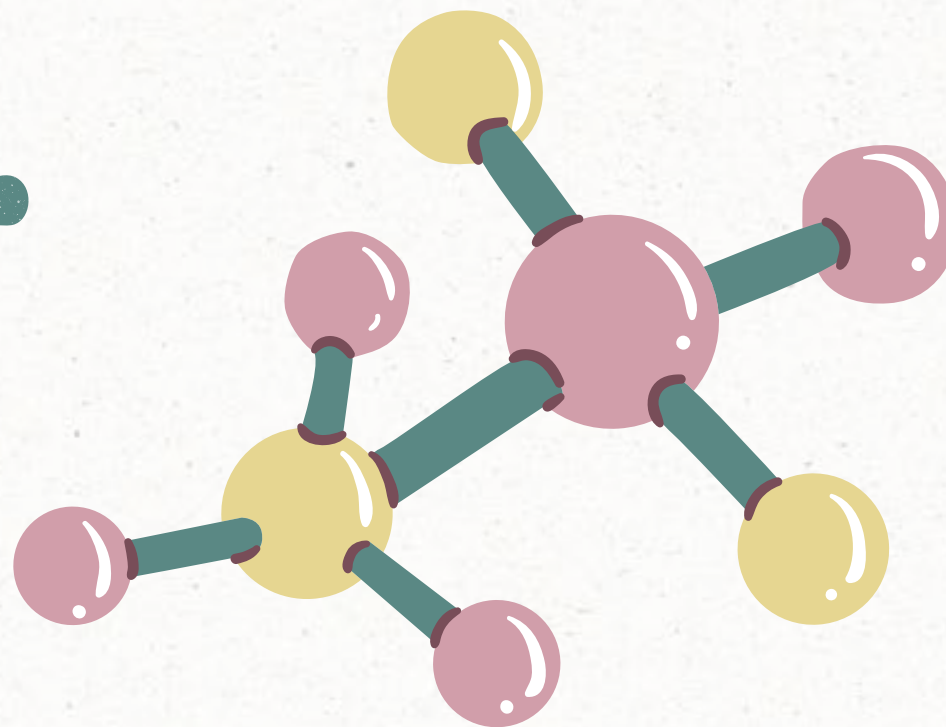
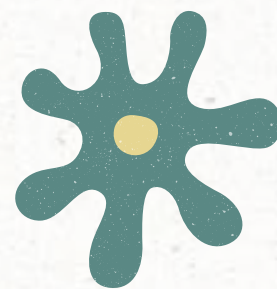
School Water Toxicity

VIHITHA KUMAR AND SRISHTI BORAL



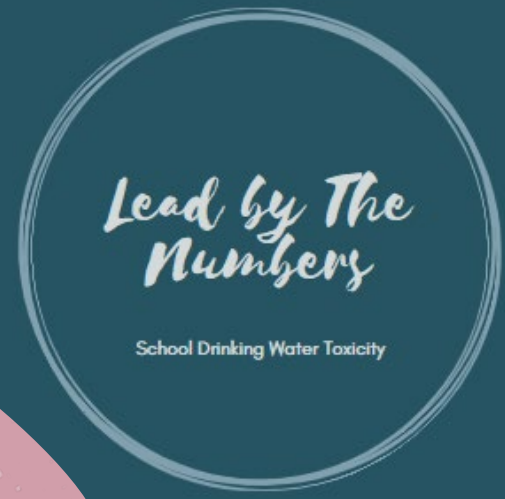
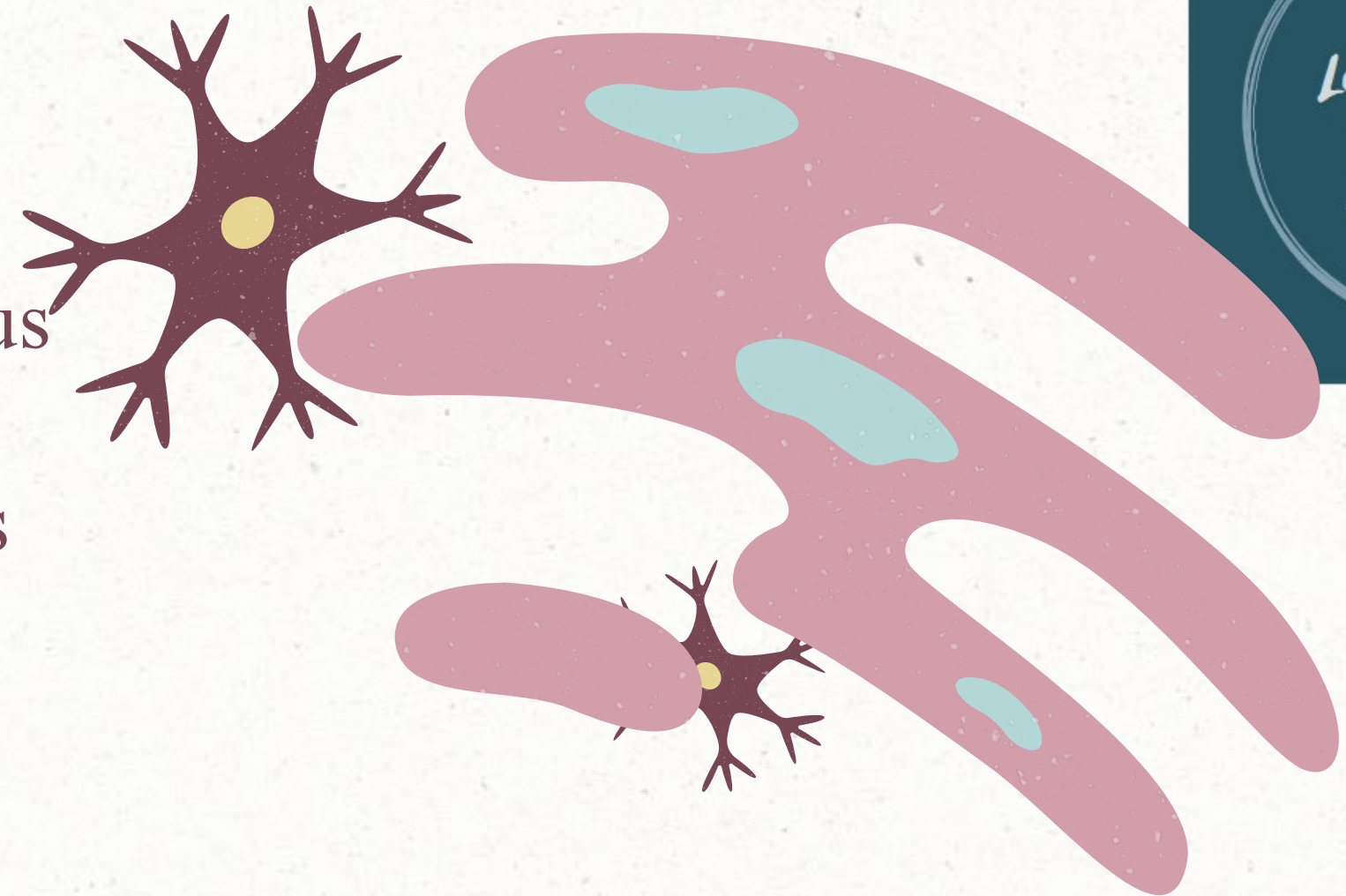
01

THE BASICS



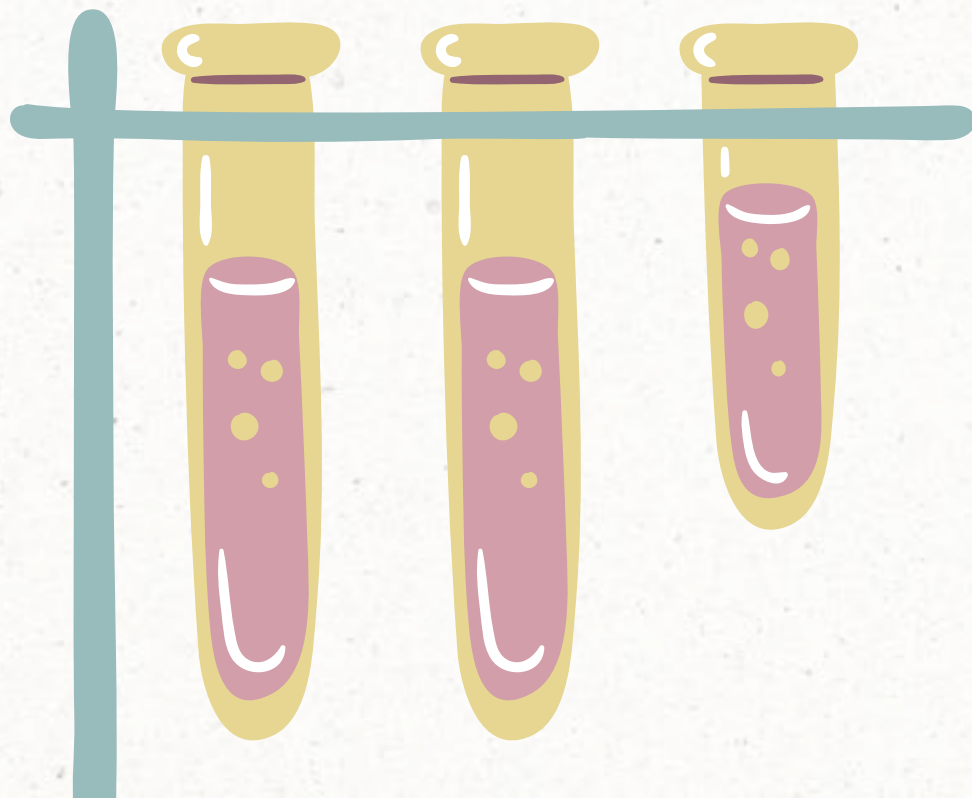
WHAT IS LEAD?

- Lead is a toxic metal that's really dangerous when ingested, especially for children.
- Children take in 4-5 times as much lead as adults, which is why it's so dangerous for them.
- Lead is extremely harmful, regardless of how much one is exposed to.



HOW DOES IT GET INTO WATER?

- Lead gets into water when pipes wear away (or "corrode") and a chemical reaction occurs, contaminating the water.





Effects of Lead on the Body



Anemia and Hypertension

Vomiting and Constipation

Appetite Loss

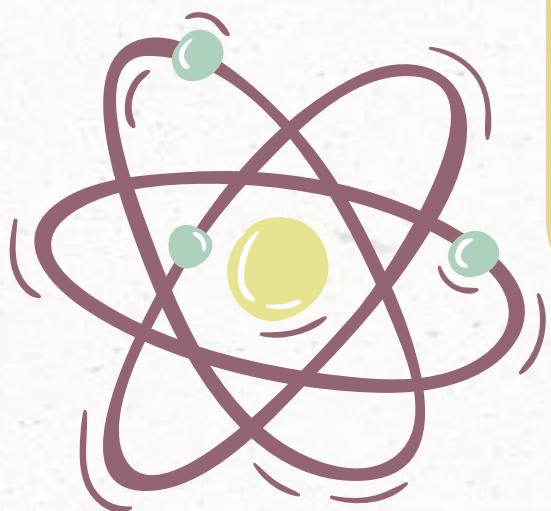


Effects of Lead on the mind

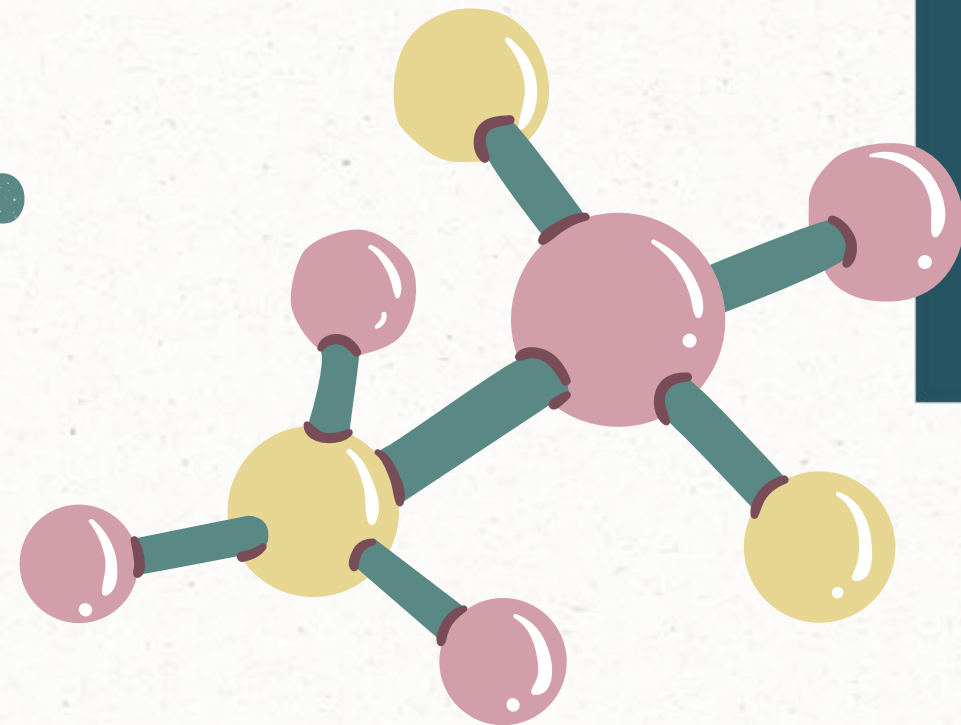
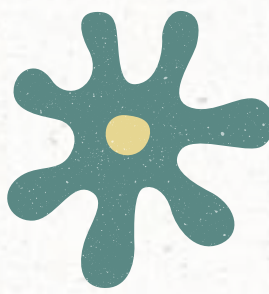
Learning Issues
and
Developmental
Delays

Attention Span
Reduced

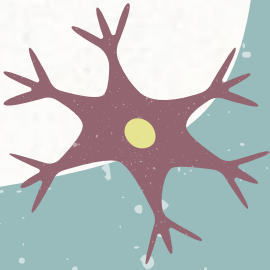
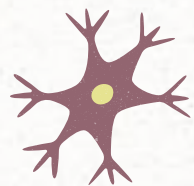
Antisocial
Behaviour
Increased



02



THE TREATMENT



HOW DO YOU TREAT LEAD POISONING?



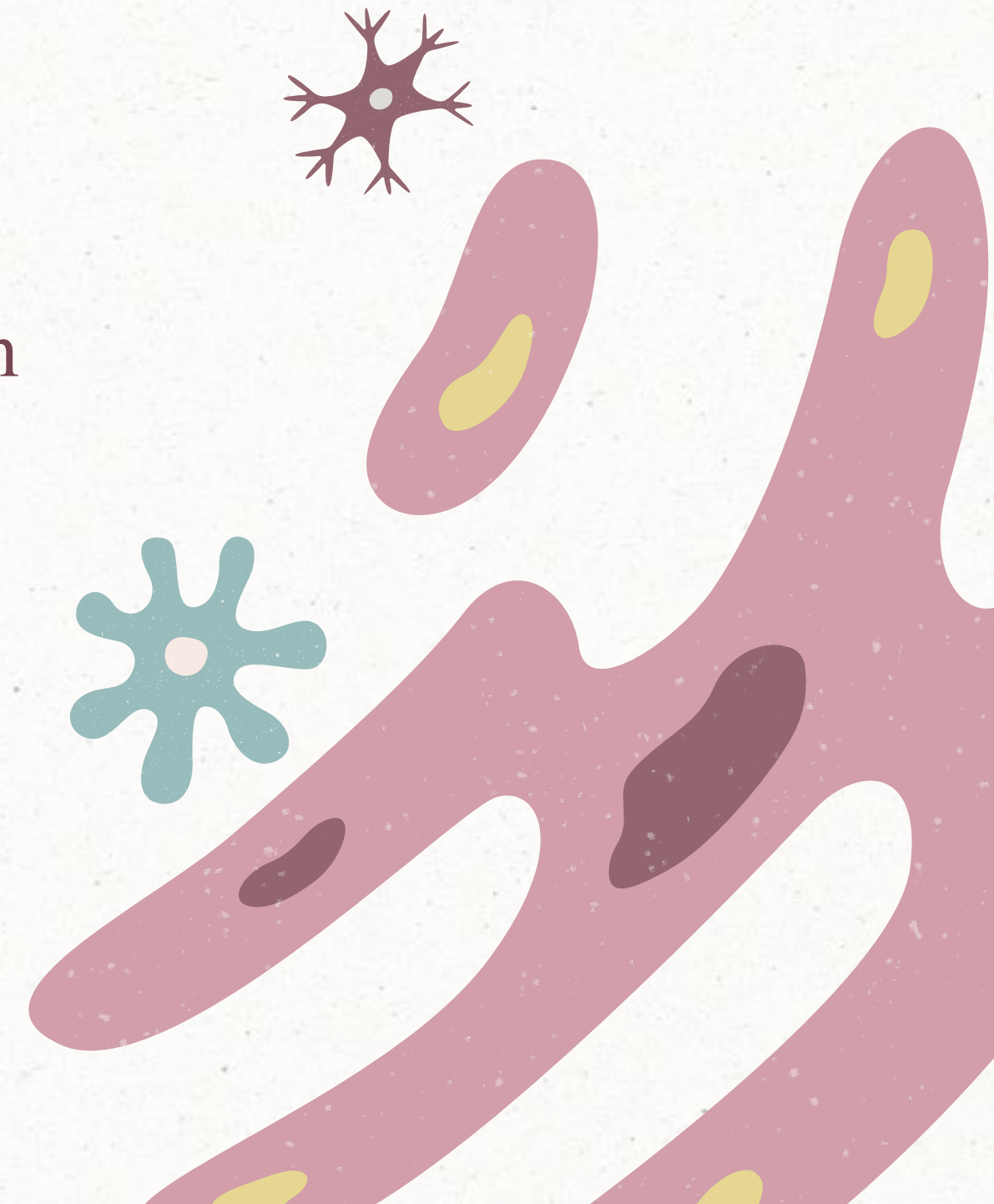
MILD

- Figure out the source of the lead and remove it
- Could require oral chelation therapy, which acts as a binding agent to make the process of getting rid of lead smoother.

SEVERE

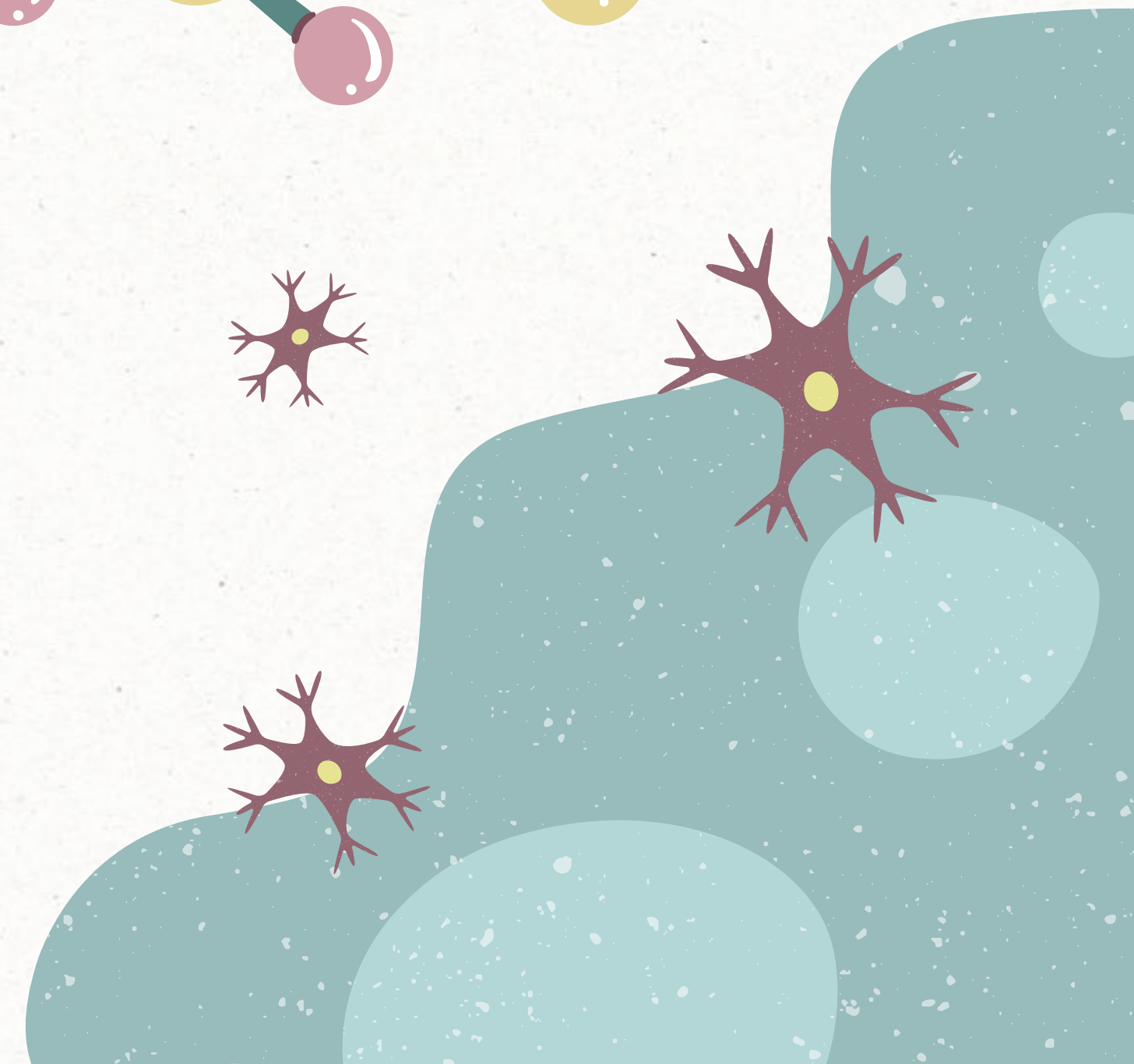
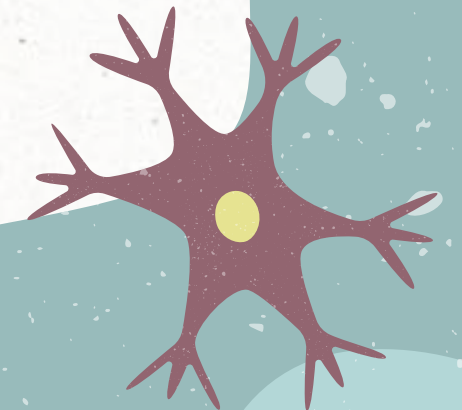
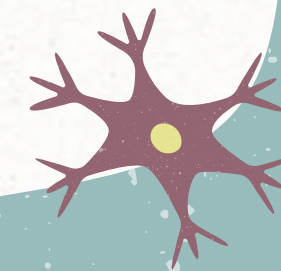
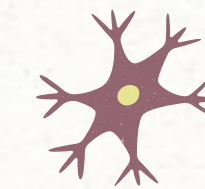
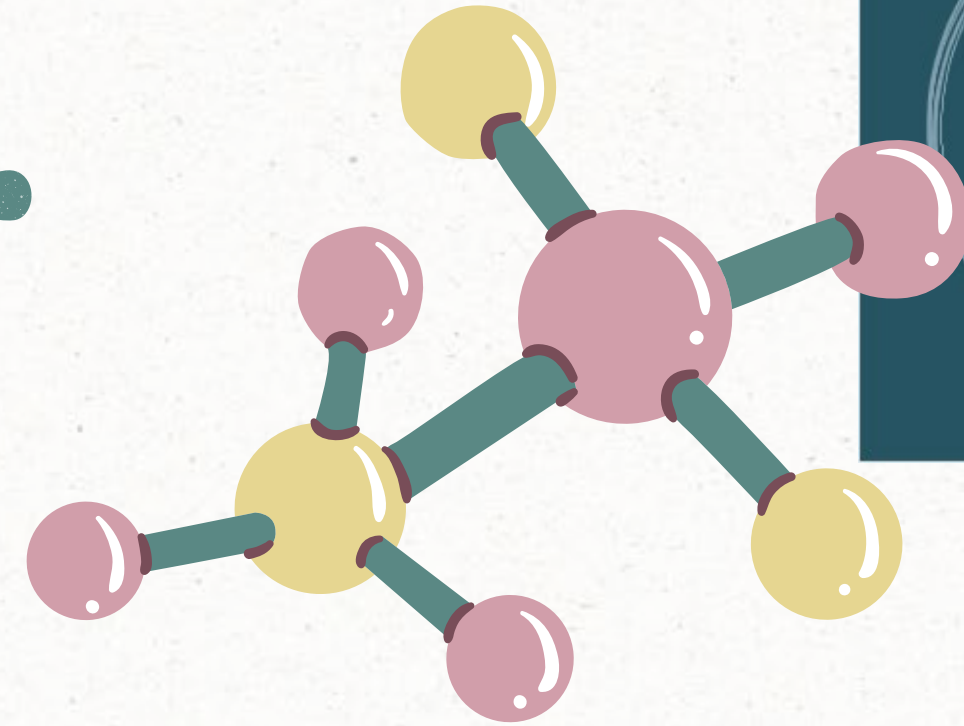
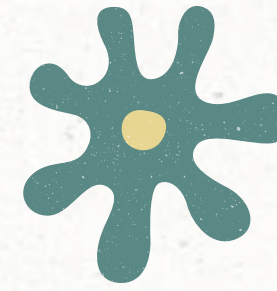
- Immediate hospitalization
- Maintenance of airways
- Coma and Seizure management
- IV drip
- Could require catheter irrigation

In both cases, getting rid of lead immediately is necessary!



03

THE ISSUE





LEAD LEVELS IN NORTH THURSTON SCHOOL DISTRICT



Thurston	North Thurston	School Name	Source	Lead Level (ppb)
		Chambers Prairie Elementary School	Tap	23
			Water Fountain	10
		Evergreen Forest Elementary School	Bottle Filler	1
			Tap	27
		Horizons Elementary School	Water Fountain	4
			Tap	33
		Lacey Elementary School	Tap	20
			Water Fountain	4
		Lakes Elementary School	Tap	7
			Water Fountain	19
		Lydia Hawk Elementary School	Tap	9
			Water Fountain	10
		Meadows Elementary School	Tap	16
			Water Fountain	10
		Mountain View Elementary School	Tap	22
			Water Fountain	14
		Olympic View Elementary	Tap	17
			Water Fountain	9
		Pleasant Glade Elementary	Tap	30
			Water Fountain	3
		Seven Oaks Elementary School	Bottle Filler	8
			Tap	3
		South Bay Elementary School	Tap	58
			Water Fountain	46
		Woodland Elementary	Tap	28
			Water Fountain	26
		Woodland Elementary	Tap	35
			Water Fountain	14
		Woodland Elementary	Tap	24
			Water Fountain	12
		Woodland Elementary	Tap	23
			Water Fountain	4
		Woodland Elementary	Tap	23
			Water Fountain	8
		Woodland Elementary	Bottle Filler	1
			Tap	33
		Woodland Elementary	Water Fountain	6
			Tap	35
		Woodland Elementary	Bottle Filler	1
			Tap	27
		Woodland Elementary	Water Fountain	14
			Water Fountain	4
		Woodland Elementary	Tap	10
			Water Fountain	20
		Woodland Elementary	Tap	28
			Water Fountain	10
		Woodland Elementary	Tap	7
			Water Fountain	15
		Woodland Elementary	Tap	11
			Water Fountain	10
		Woodland Elementary	Tap	7
			Water Fountain	17

KEY:

- Blue: <5 ppb
- Peach: >5 and <15 ppb
- Dark Orange: >15 ppb
- >5 ppb = dangerous to consume

BREAKDOWN

- North Thurston spends less than the average \$18,000 on its students, making it a low expenditure school district.
- Out of the 1074 water sources tested, 290 came back with concerning lead amounts, about 42%.
- Of those, 164 had so much lead that they were required to shut off.

*Lead by The
Numbers*

School Drinking Water Toxicity



LEAD LEVELS IN HIGHLINE SCHOOL DISTRICT



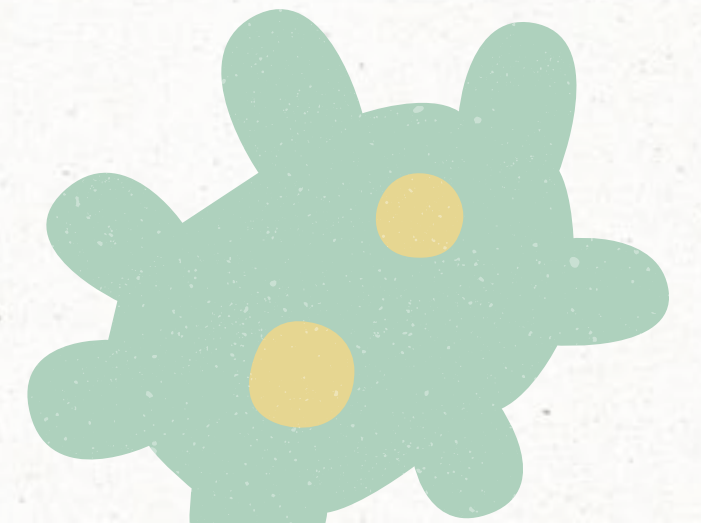
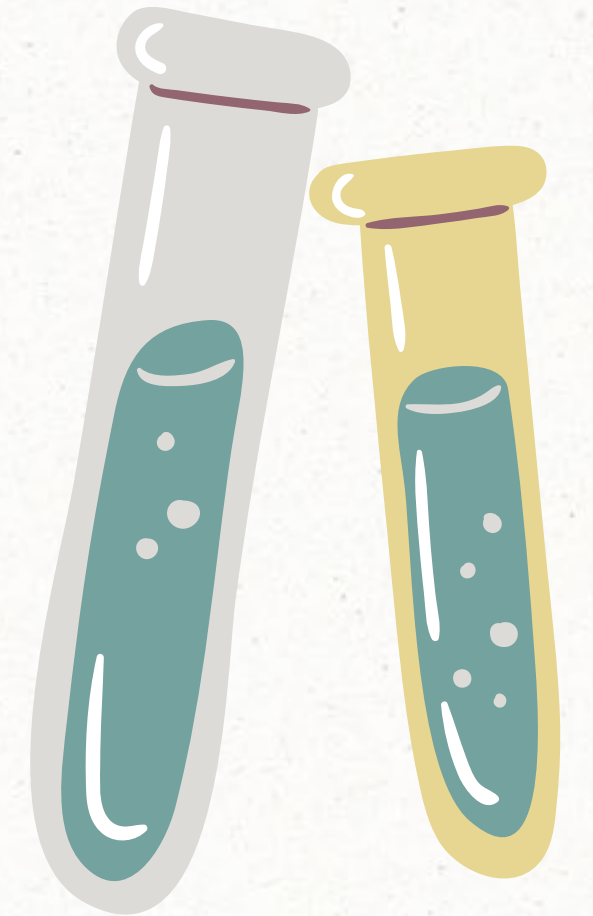
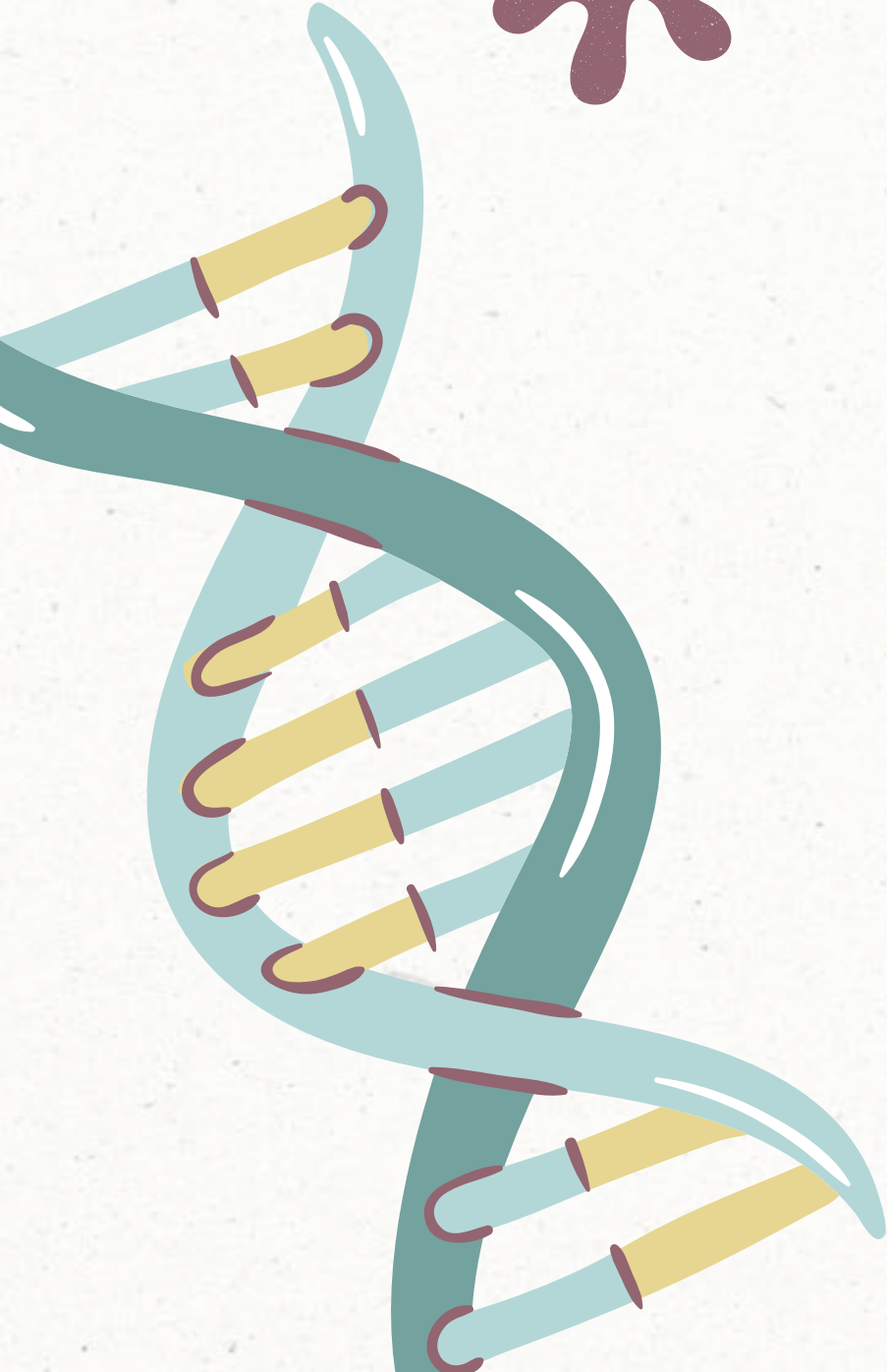
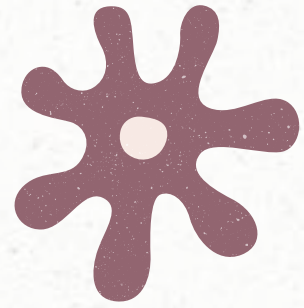
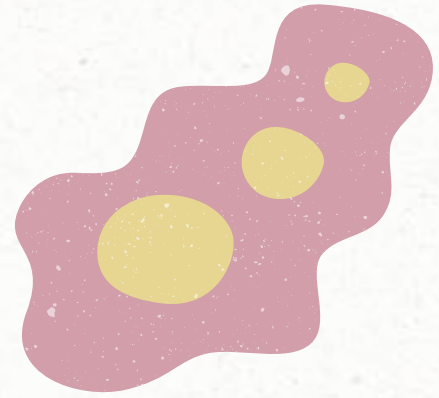
Beverly Park @ Glendale Elementary School	Tap	28	Marvista Elementary School	Bottle Filler	1	Seahurst Elementary School	Tap	33
	Water Fountain	30		Tap	34		Water Cooler	1
Bow Lake Elementary School	Bottle Filler	4	McMicken Heights Elementary School	Tap	45	Shorewood Elementary School	Water Fountain	30
	Tap	49		Water Fountain	44		Tap	32
	Water Fountain	43	Midway Elementary School	Tap	53		Water Fountain	28
Cascade Middle School	Bottle Filler	1		Water Fountain	47	Southern Heights Elementary School	Tap	9 7
	Tap	10 8 5	Mount Rainier High School	Bottle Filler	6		Water Fountain	13
	Water Fountain	14		Tap	46	Sylvester Middle School	Bottle Filler	2
Cedarhurst Elementary School	Tap	34 10	Mount View Elementary School	Water Fountain	28		Tap	13 6 7
	Water Fountain	33		Tap	46		Water Fountain	9
Chinook Middle School	Tap	17 3 5	Pacific Middle School	Water Fountain	34	Tyee Campus	Bottle Filler	2
	Water Fountain	8		Tap	23 5		Tap	23
Evergreen High School Campus	Bottle Filler	2	Parkside Elementary School	Water Fountain	4		Water Fountain	12 4
	Tap	32 3		Bottle Filler	1	White Center Heights Elementary School	Tap	43
	Water Fountain	15		Tap	77 8 16		Water Fountain	41
Gregory Heights Elementary School	Tap	33	Puget Sound Skills Center	Water Fountain	59			
	Water Fountain	27		Bottle Filler	3			
Hazel Valley Elementary School	Tap	43		Tap	38 10			
	Water Fountain	40	Raisbeck Aviation High School	Water Fountain	11			
Highline High School (old)	Bottle Filler	1		Tap	6			
	Tap	26 13 4		Water Fountain	8			
	Water Fountain	32 8	Salmon Creek Site (New Start School)	Water Fountain	7			
Hilltop Elementary School	Tap	32		Bottle Filler	1			
	Water Fountain	32		Tap	13 4			
Madrona Elementary School	Bottle Filler	1		Water Fountain				
	Tap	37						
	Water Fountain	28						

>5 ppb = dangerous to

consume
See key on previous data slide

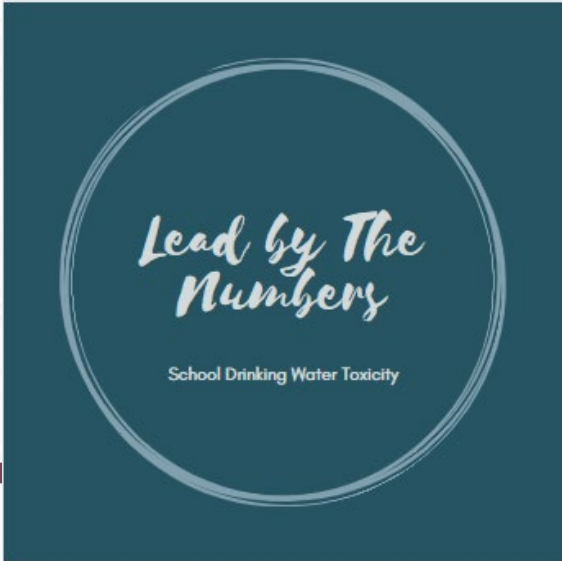
BREAKDOWN

- Highline spends more than the average \$18,000, and its water is noticeably cleaner.
- Out of the 1802 water sources tested, 115 came back with concerning lead amounts, only about 10%.
- Of those, only 69 were required to shut off, much less than North Thurston.





Situations like this are known as.....



ECONOMIC DISPARITIES

- Economic disparities are inequalities because of uneven cash flow (in our case, in schools).
- Schools that are spending less on their students' well beings (like North Thurston), reportedly have more dangerous environments, like higher lead levels in their water.
- In contrast, schools that spend more on the health of their students (like Highline), are enforcing safer, cleaner environments, like lower lead levels.





WHAT CAN YOU DO

STUDENTS

-----HELP US RAISE AWARENESS ON THIS ISSUE!-----

Visit <https://doh.wa.gov/data-and-statistical-reports/washington-tracking-network-wtn/lead-school-drinking-water/dashboard> to find out the quality of your school's water

Is the lead level concerning?

Reach out to your school admin or call the National Lead Information Center at 1-800-424-LEAD.





WHAT CAN YOU DO SCHOOL BOARD MEMBERS



-----ADVOCATE FOR CHANGING THE BUDGETING SYSTEM FOR SCHOOLS!-----

Visit <https://wallethub.com/edu/e/most-least-equitable-school-districts-in-washington/7742> to see how much money schools in your area are spending.

Are they spending less than the average \$18000? Chances are, the school has a lot of lead concentration in the water as well (which you can check by visiting the link on the previous slide).

Advocate to change the budgeting system and have more money go to ensuring students' safety! (details on next slide)





PROPOSED BUDGETING SYSTEM



*Lead by The
Numbers*

School Drinking Water Toxicity

POPULATION BASED FUNDING

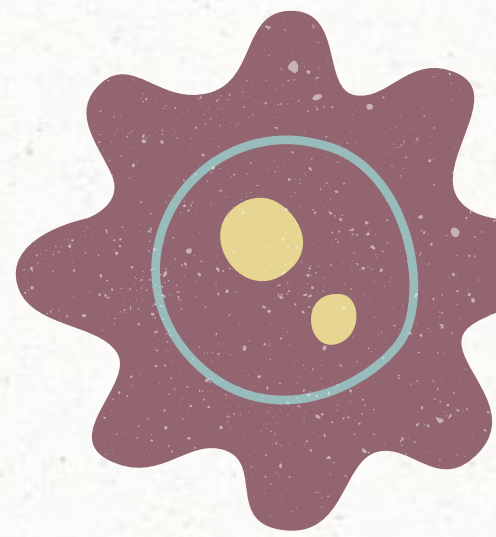
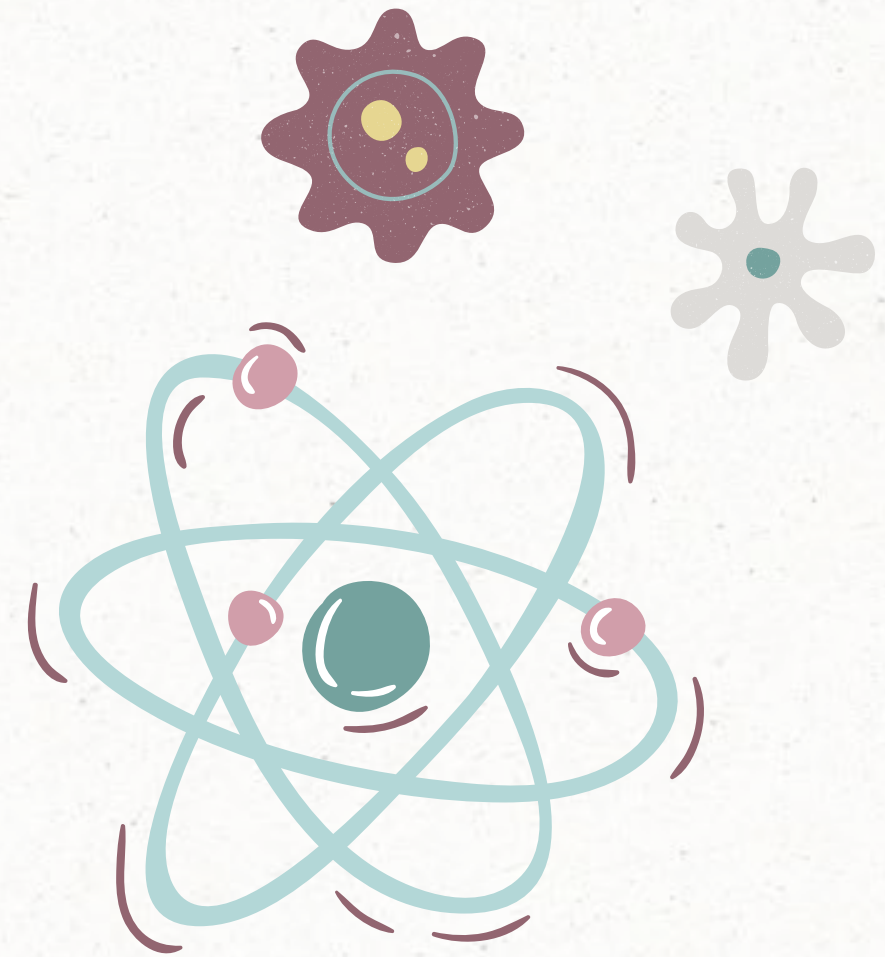
The budget would change based on the number of people (staff and students) at the school to ensure complete fairness. It would also make sure every school has the best budget possible for its population.

ECONOMICALLY DISADVANTAGED SCHOOLS

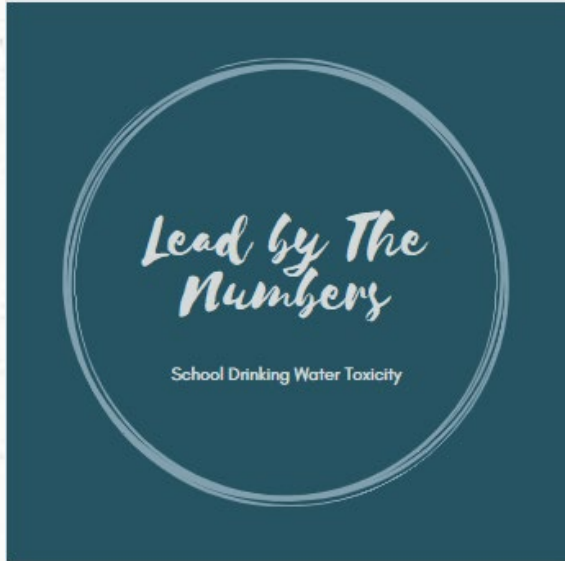
The budget would have a set minimum amount. This would guarantee even the smallest school having enough funding to support itself.

EQUITY IMPACT

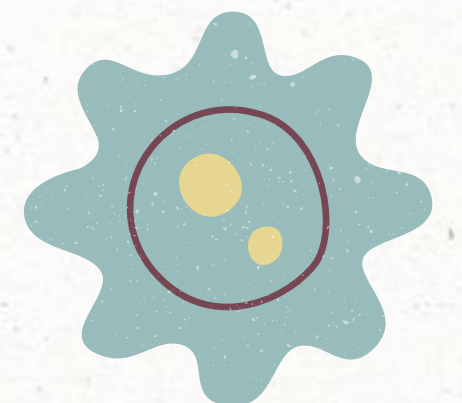
The budgeting system would stay the same across the state to certify everyone getting equal access to an appropriate budget. This would help highly contaminated schools spend more money on keeping their students safe.

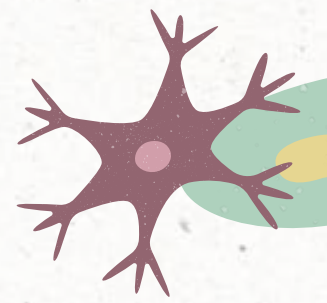
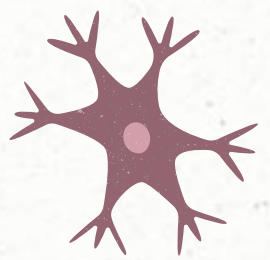
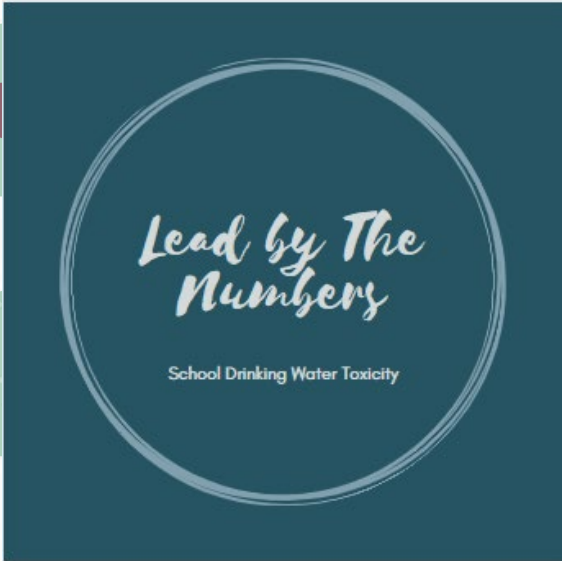


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THANK YOU!

Remember, you can make a difference!

