

air WATCH
northwest

NORA & WES

AIRO'S QUEST FOR CLEAN AIR

COUGH!
COUGH!



"NORA AND WES: AIRO'S QUEST FOR CLEAN AIR" IS A PRODUCTION OF THE NORTHWEST AIR QUALITY COMMUNICATORS NETWORK, A CONSORTIUM OF FEDERAL, TRIBAL, STATE, PROVINCIAL AND LOCAL AIR QUALITY AND HEALTH ORGANIZATIONS IN THE PACIFIC NORTHWEST. LEARN MORE ABOUT OUR WORK AND WHAT YOU CAN DO TO PROTECT THE AIR AT

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INTRO

NORA AND WES ARE CLEAN AIR CHAMPIONS, ON A MISSION TO FIND SOLUTIONS TO AIR POLLUTION. TODAY FINDS THEM PATROLLING THEIR NEIGHBORHOOD FOR PESKY POLLUTERS. SUDDENLY, IN THE DISTANCE, THEY SPY A SPIRALING FLURRY OF FEATHERS...

HOLY FEATHERDUSTERS, WES! WHAT IN THE WORLD IS THAT?

WHATEVER IT IS, IT LOOKS LIKE IT'S GOING TO CRASH!





LOOK, IT'S OUR PAL AIRO!

OH MAN, THAT HURT!

HEY, AIRO! ARE YOU ALL RIGHT?



OH, I'LL BE OK. BUT IF THIS KEEPS UP, I'M NEVER GOING TO MAKE IT ONTO THE SUPER SWOOPER AERIAL GYMNASTICS TEAM AT SCHOOL!



WHAT'S THE PROBLEM, BIRD BUDDY?



WITH ALL THE POLLUTION IN THE AIR, MY ASTHMA IS REALLY ACTING UP. YOU CAN'T SOAR THROUGH THE AIR WITH THE GREATEST OF EASE WHEN YOU CAN BARELY BREATHE!



THAT'S RIGHT! WE'RE CLEAN AIR CHAMPIONS NOW! OUR MISSION IS TO FIND SOLUTIONS TO AIR POLLUTION. I BET WE CAN FIND WHATEVER IS AGGRAVATING YOUR ASTHMA.

MAYBE WE CAN HELP, AIRO!



LOOK, IT'S SKY!

HI CLEAN AIR CHAMPIONS! THERE'S NO TIME TO LOSE! TRYOUTS FOR THE SUPER SWOOPER TEAM ARE NEXT WEEK. WE'VE GOT TO ACT FAST IF AIRO HAS A CHANCE AT MAKING THE TEAM. LET'S GO!

SOUNDS GREAT SKY! IT'S REALLY GREAT TO SEE YOU! WE'RE A TEAM AGAIN!

SKY STEWARD!



HOW ON EARTH ARE WE GOING TO MAKE THE AIR BETTER IN TIME FOR AIRO'S TRYOUTS?

THERE'S NO WAY WE CAN CLEAN UP ALL THE POLLUTION BY THEN.



I HAVE A PLAN. THE BAD AIR WE HAVE TODAY IS ACTUALLY THE RESULT OF LOTS OF THINGS WE DO HERE. WHEN WE ADD UP THE LITTLE THINGS WE DO EVERY DAY, WE END UP WITH A BIG POLLUTION PROBLEM. SO LET'S TRAVEL AROUND THE REGION AND PUT YOUR CLEAN AIR CHAMPION SKILLS TO WORK!



AWESOME!

SOUNDS GREAT!

DO YOU THINK IT WILL WORK?

YOU BET I DO! BUT FIRST, LET'S QUICKLY REVIEW WHAT AIR POLLUTION IS, AND HOW IT AFFECTS US ALL.



PIECE OF CAKE...AIR POLLUTION IS DIRTY AIR.

...AND POLLUTION INCLUDES STUFF LIKE SMOKE, DUST, DIRT AND GASES.



THAT'S RIGHT!
AND HOW DO
SMOKE, DUST, DIRT
AND GASES GET INTO
OUR AIR?



WELL, SMOKE
GETS IN THE AIR
WHEN PEOPLE
BURN STUFF.

AND A LOT OF
POLLUTION COMES FROM
CARS AND TRUCKS, BECAUSE THEY
RUN ON GASOLINE OR DIESEL. WHEN
WE DRIVE, OUR CARS BURN FUEL,
WHICH PRODUCE GASES LIKE CARBON
MONOXIDE, HYDROCARBON,
CARBON DIOXIDE AND
PARTICLES.

YOU GUYS KNOW YOUR STUFF! SMOKE FROM BURNING AND EXHAUST FROM MOTOR VEHICLES ARE THE TOP SOURCES OF AIR POLLUTION IN OUR REGION, SO THAT'S WHAT WE'LL BE LOOKING FOR WHEN WE HOP AROUND THE NORTHWEST. BUT FIRST - LET'S TALK A MOMENT ABOUT WHY IT ALL MATTERS. WHY SHOULD WE CARE ABOUT THE AIR?





OUR HEROES TELEPORT INTO THE COLD ...AND SMOKE EVERYWHERE!

WOOD SMOKE

BRRR! IT'S CHILLY. WE MUST HAVE TRAVELED EAST OF THE CASCADES.

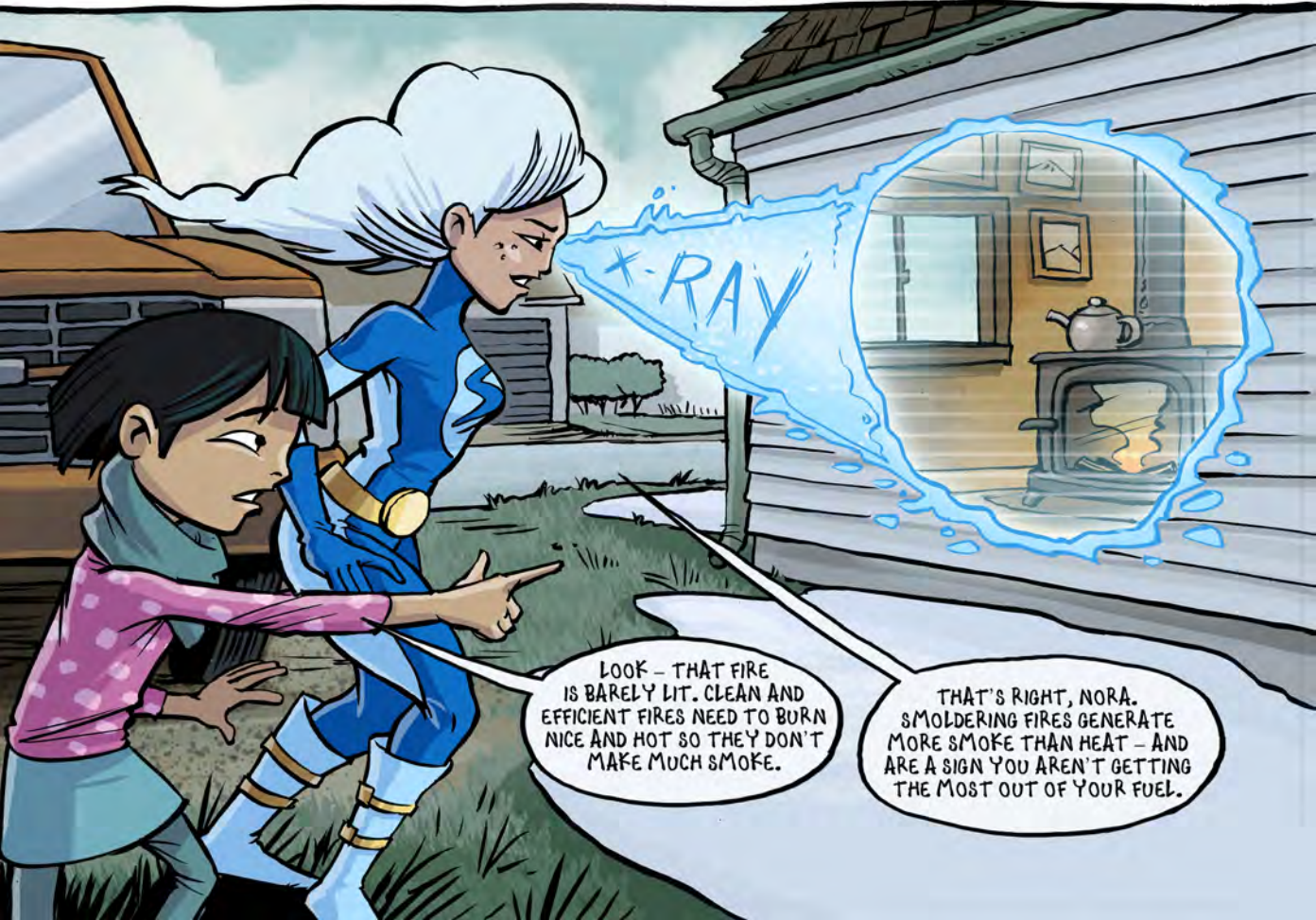
THE SMELL IN THE AIR REMINDS ME OF THE HOLIDAYS - COZY EVENINGS SPENT BY THE FIRE...

ZWOOP!

COUGH
COUGH!

YEAH, BUT THERE'S NOTHING COZY ABOUT ALL THIS WOOD SMOKE!







CHECK IT OUT. WITH JUST A FEW LITTLE CHANGES, WE CLEANED UP AN ENTIRE NEIGHBORHOOD!

YOU CAN HARDLY SEE ANY SMOKE FROM THOSE CHIMNEYS - AND BETTER YET, I CAN BREATHE!

JUST GOES TO SHOW THAT WHEN PEOPLE DRY THEIR FIREWOOD AND USE THEIR STOVES AND FIREPLACES CORRECTLY, IT MAKES THE AIR IN OUR COMMUNITY MUCH HEALTHIER! AND BURNING TRASH IS NEVER A GREAT IDEA. THERE ARE ALWAYS CLEANER ALTERNATIVES FOR TRASH.



OUTDOOR BURNING

OUR FEARLESS CHAMPIONS TRAVEL BACK TO CENTRAL WASHINGTON...



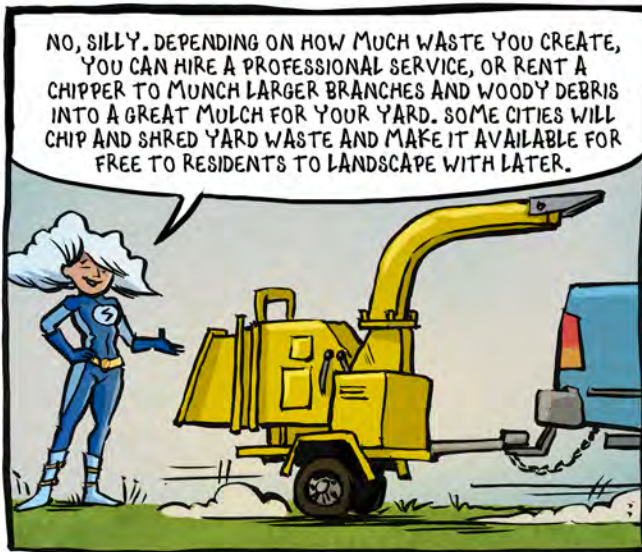
WHAT IS THE ORIGIN OF THIS ODIFEROUSNESS? THESE PEOPLE ARE JUST BURNING TWIGS AND LEAVES. THAT'S TOTALLY NATURAL, RIGHT?

ACTUALLY, SMOKE FROM BURNING LEAVES AND WOOD MAY SEEM HARMLESS, BUT IT'S NOT MUCH DIFFERENT THAN CIGARETTE SMOKE, AND CONTAINS ALL KINDS OF TOXIC COMPOUNDS THAT CAN CONTRIBUTE TO BIRTH DEFECTS, CANCER AND LUNG DISEASE.



PLUS, SOME OF THESE FOLKS ARE BURNING GARBAGE WITH THEIR YARD DEBRIS, WHICH IS SERIOUSLY DANGEROUS. THAT'S WHY OUTDOOR BURNING FOR DISPOSAL PURPOSES IS BECOMING A THING OF THE PAST.





OZONE

OUR CHAMPIONS ARRIVE IN THE SUBURBS...

SWEET!!
IT LOOKS LIKE AN
AWESOME DAY HERE
IN PORTLAND!

AWESOME
IF YOU DON'T
FACTOR IN THAT
MURKY LAYER OF
FOG OVER THERE!
GROSS.

ACTUALLY,
THAT FOG IS 'SMOG.'
SMOG IS A KIND OF AIR
POLLUTION THAT OCCURS
ON SUPER-HOT DAYS,
WHEN DIFFERENT CHEMICALS
FROM MANY OF OUR
DAY-TO-DAY ACTIVITIES
"COOK" IN THE SUNLIGHT
AND CREATE OZONE.

WHAT'S
OZONE?



OZONE IS A GAS THAT'S FOUND IN BOTH THE EARTH'S UPPER AND LOWER ATMOSPHERES. WHEN IT'S UP HIGH IN THE STRATOSPHERE, IT FORMS A LAYER THAT HELPS PROTECT OUR PLANET FROM HARMFUL ULTRAVIOLET (UV) RAYS. YOU'VE PROBABLY HEARD OF THE OZONE LAYER.

BUT IN THE LOWER ATMOSPHERE, CALLED THE TROPOSPHERE, WHERE WE LIVE, OZONE IS NOT SO GREAT. IT'S OFTEN REFERRED TO AS "GROUND-LEVEL OZONE" AND IT IS A HARMFUL POLLUTANT THAT CAN CAUSE BREATHING PROBLEMS.

SO OZONE IS GOOD UP HIGH?

STRATOSPHERE
10-30 MILES

OZONE LAYER
0-10 MILES
TROPOSPHERE

...AND BAD NEARBY?



BUMMER. ALL THIS 'BAD NEARBY' OZONE MUST BE WHY I'M HAVING SUCH A HARD TIME BREATHING AGAIN. AND - MY EYES REALLY ITCH!

COUGH COUGH



SO WHAT CAN WE DO TO PREVENT GROUND-LEVEL OZONE?

MOST OF THE CHEMICALS THAT CONTRIBUTE TO OZONE ARE RELEASED WHEN REFUELING AND WHILE OPERATING VEHICLES AND OTHER GASOLINE POWERED ENGINES.



LIKE BOATS?



AND LAWN MOWERS?



YES AND YES. SO THE BEST WAY TO FIGHT SMOG IS TO FIND WAYS TO TAKE A PASS ON GAS!





EXHAUSTED

SKY & THE CHAMPIONS CONTINUE THEIR JOURNEY TO SEATTLE TO SPY IN THE DISTANCE, A STEAMING SKYLINE. ANOTHER POLLUTION PROBLEM! THE CREW ZOOMS IN TO INVESTIGATE.



zzzwoop!

WHOA, WHAT A MESS!

ARE YOU TALKING ABOUT THE CONGESTION, OR THE POLLUTION IT'S CREATING?

EITHER WAY, THAT CAN'T BE GOOD FOR US TO BREATHE.

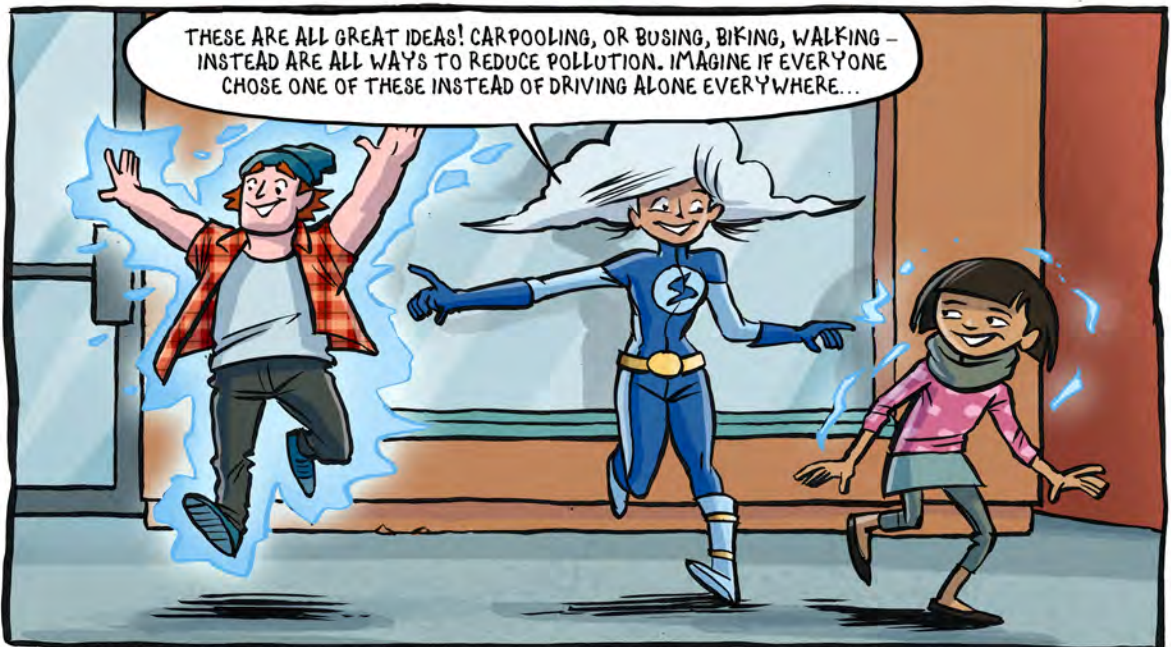


YOU BET YA! AS YOU MIGHT GUESS FROM WHAT YOU SEE BELOW, EXHAUST FROM MOTOR VEHICLES - CARS, TRUCKS, TRAINS, ETC - IS A LEADING CAUSE OF AIR POLLUTION, INCLUDING GREENHOUSE GASES.



BUT WHAT CHOICE DO WE HAVE? WE NEED TO GET AROUND SOMEHOW.

THINK ABOUT IT, WES. WHAT CHOICES DO YOU HAVE?





IDLING CARS

THERE'S LOTS OF AIR POLLUTION COMING FROM CARS EVERYWHERE...

ZWOOP!

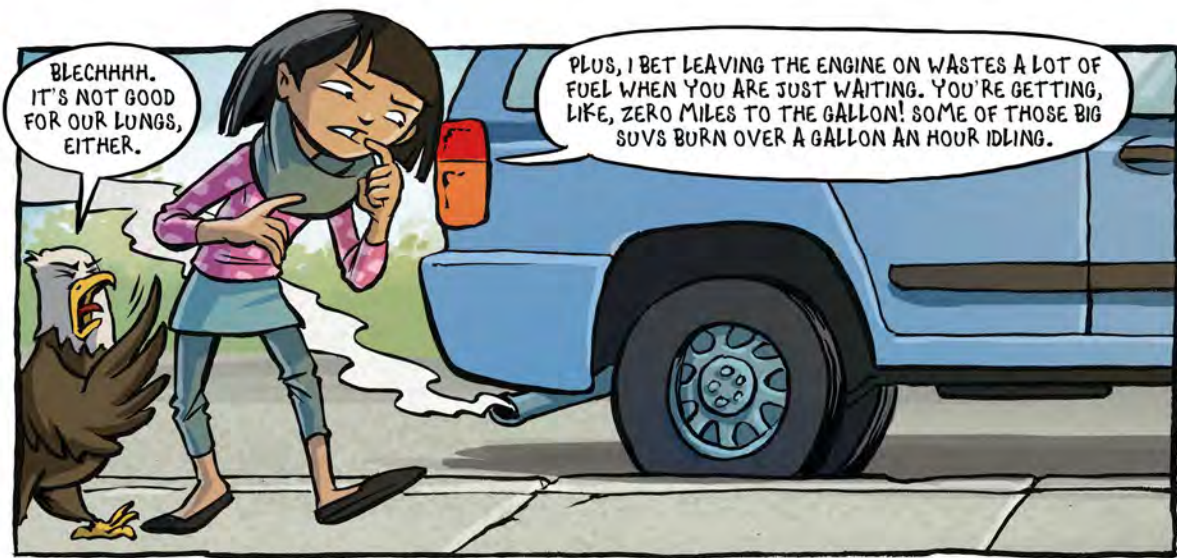
HEY,
THAT'S OUR
SCHOOL!



WOW. EVEN THOUGH
THOSE CARS AREN'T GOING
ANYWHERE, THEY SURE
ARE SPEWING OUT A LOT OF
POLLUTION.

THAT'S A FACT. OVER
THE COURSE OF ONE MONTH,
EACH CAR DROPPING OFF AND
PICKING UP KIDS FROM SCHOOL
WILL PUT ABOUT THREE POUNDS
OF TOXIC POLLUTION INTO
THE AIR.

NOT TO MENTION
CARBON DIOXIDE, A
GREENHOUSE GAS THAT
CAUSES CLIMATE
CHANGE.



BLECHHHH. IT'S NOT GOOD FOR OUR LUNGS, EITHER.

PLUS, I BET LEAVING THE ENGINE ON WASTES A LOT OF FUEL WHEN YOU ARE JUST WAITING. YOU'RE GETTING, LIKE, ZERO MILES TO THE GALLON! SOME OF THOSE BIG SUVs BURN OVER A GALLON AN HOUR IDLING.



WHY DON'T THEY JUST TURN OFF THE ENGINE? YOU CAN STILL ENJOY YOUR TUNES - WITHOUT STINKING UP THE SCHOOLYARD!



TRUE, WES! IF YOU'RE WAITING FOR MORE THAN 30 SECONDS, WHETHER IT'S PICKING UP THE KIDS AT SCHOOL OR WAITING AT A RAILROAD CROSSING—OR WHEREVER—JUST TURNING OFF YOUR ENGINE MAKES A REAL DIFFERENCE.



BLUM-BLUM-BLUM-BL

HOW CAN WE POSSIBLY GET ALL OF THESE GROWN-UPS TO DO SOMETHING? MAYBE WE CAN CHALLENGE THEM TO MAKE A DIFFERENCE. THEY HAVE TO BREATHE THE AIR TOO.



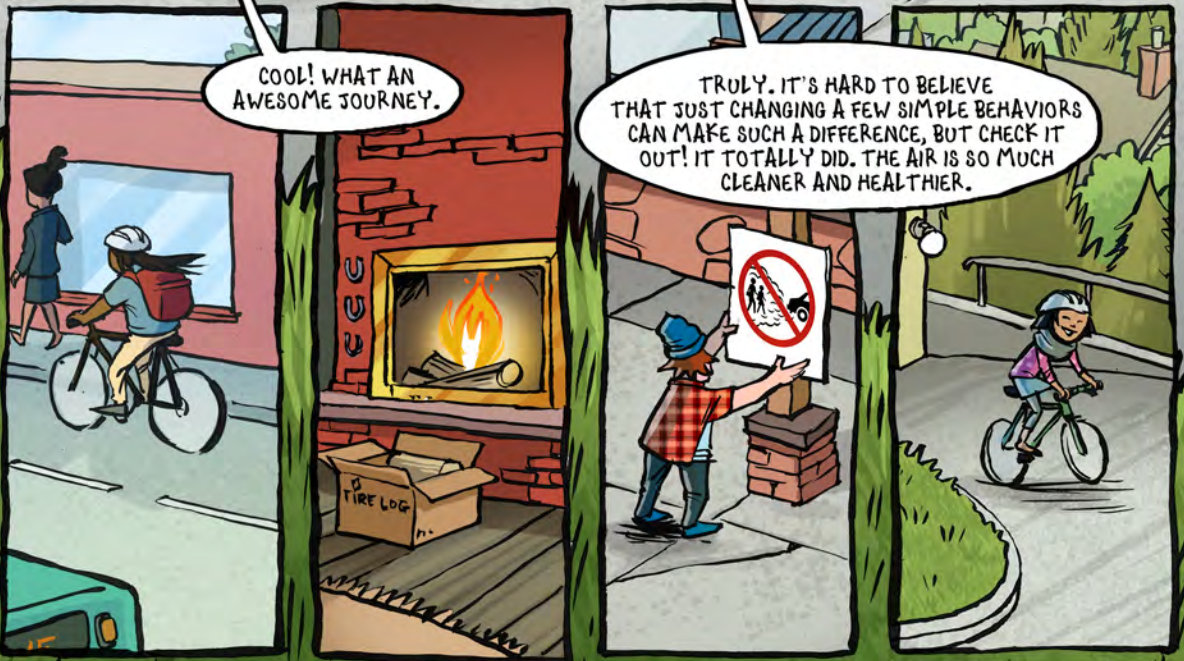
WRAP UP

HOME BASE. NOW THAT OUR CLEAN AIR CHAMPIONS HAVE REDUCED AIR POLLUTION IN THE NORTHWEST, AIRO CAN PRACTICE IN MUCH CLEANER AIR.



COOL! WHAT AN AWESOME JOURNEY.

TRULY, IT'S HARD TO BELIEVE THAT JUST CHANGING A FEW SIMPLE BEHAVIORS CAN MAKE SUCH A DIFFERENCE, BUT CHECK IT OUT! IT TOTALLY DID. THE AIR IS SO MUCH CLEANER AND HEALTHIER.





I'D SAY THAT AIRO IS A FAN. WITHOUT THE POLLUTION TRIGGERING HIS ASTHMA AND SLOWING HIM DOWN, HE SEEMS TIP-TOP FOR TRYOUTS.



WOOOHOOOO!
WATCH ME!!
I'M GONNA ROCK
THOSE TRY-OUTS FOR
THE SUPERSWOOPERS
NOW!



SO WHAT DO WE DO NOW?
HOW DO WE MAKE SURE
THE AIR DOESN'T GET
POLLUTED AGAIN?

I KNOW! TO KEEP THIS
IMPORTANT MISSION ALIVE, WE MUST
HELP OTHER PEOPLE BECOME CLEAN
AIR CHAMPIONS, TOO.





TAKE THE CLEAN AIR PLEDGE:

AS A CLEAN AIR CHAMPION, I PLEDGE TO DO MY PART TO HELP PREVENT AIR POLLUTION WHEREVER, WHENEVER, AND HOWEVER I CAN:



I PLEDGE TO TAKE THE BUS OR TRAIN, CARPOOL WITH FRIENDS, OR RIDE MY BIKE; AS LONG AS IT'S SAFE FOR ME.



I PLEDGE TO ONLY BURN DRY WOOD FOR HEAT, AND TO NEVER BURN GARBAGE.



I PLEDGE TO ASK DRIVERS TO TURN OFF THE ENGINE WHILE WE ARE WAITING.



CLEAN AIR CHAMPIONS!



 **AIR WATCH**
northwest

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