

# Passing GAS

HOW CLEAN ENERGY  
MAKES THE WORLD  
LESS SMELLY



NORTH AMERICAN YOUNG GENERATION IN NUCLEAR

WRITTEN BY: PHILLIP CRAIG

ILLUSTRATED BY: MEGAN SAUER



# Passing GAS

HOW CLEAN ENERGY  
MAKES THE WORLD LESS SMELLY



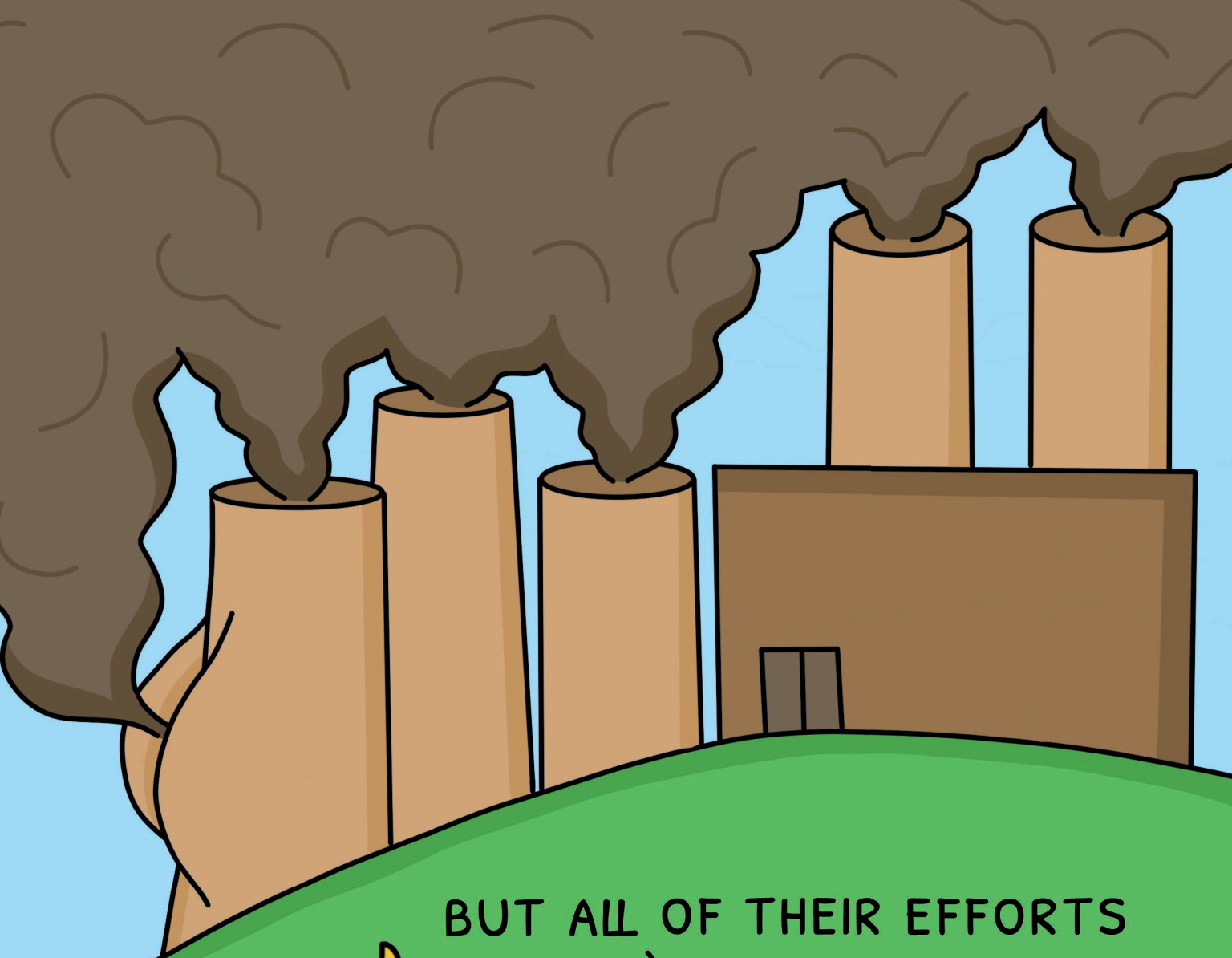
WRITTEN BY: PHILLIP CRAIG  
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DUCKS, ALL AROUND YOU,  
ARE NOT WHAT THEY SEEM

AS THEY'RE ALWAYS TRYING  
TO KEEP THE WORLD  
**CLEAN.**

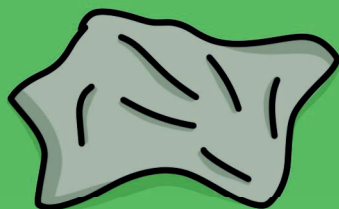






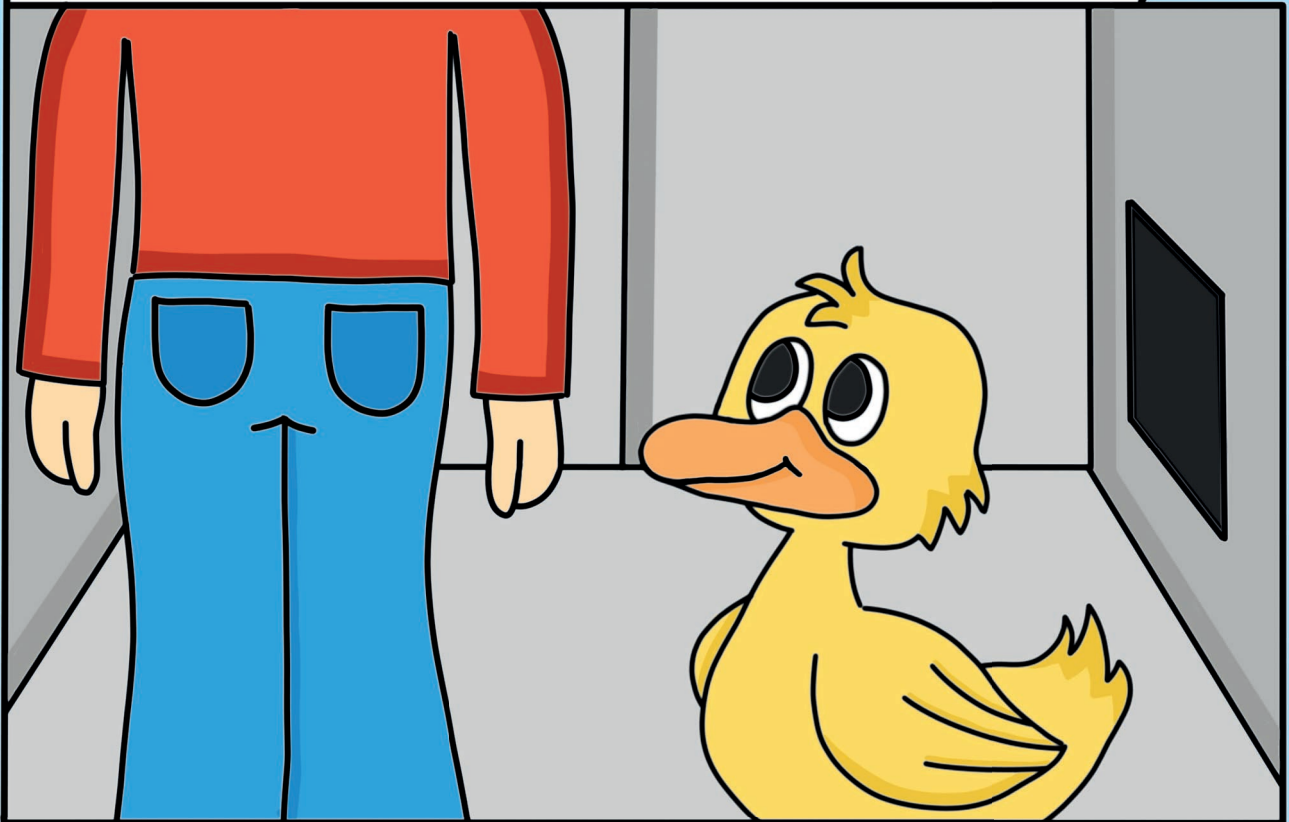
BUT ALL OF THEIR EFFORTS  
WON'T MATTER A HOOT,  
IF THESE STINKY  
POWER PLANTS  
CONTINUE TO

**TOOT.**



THINK OF THE WORLD

AS A SMALL ELEVATOR,



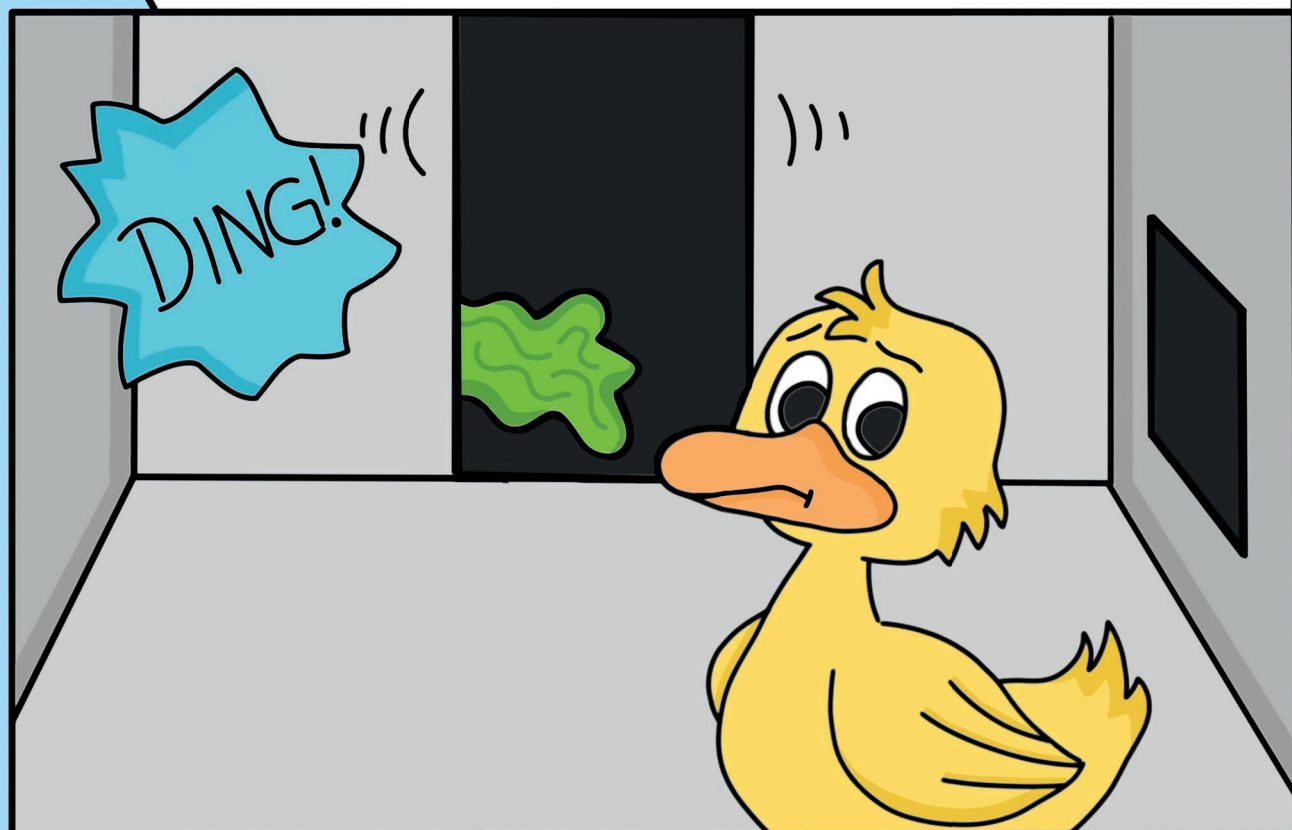
AND SOMEONE GETS OFF

AND YELLS...



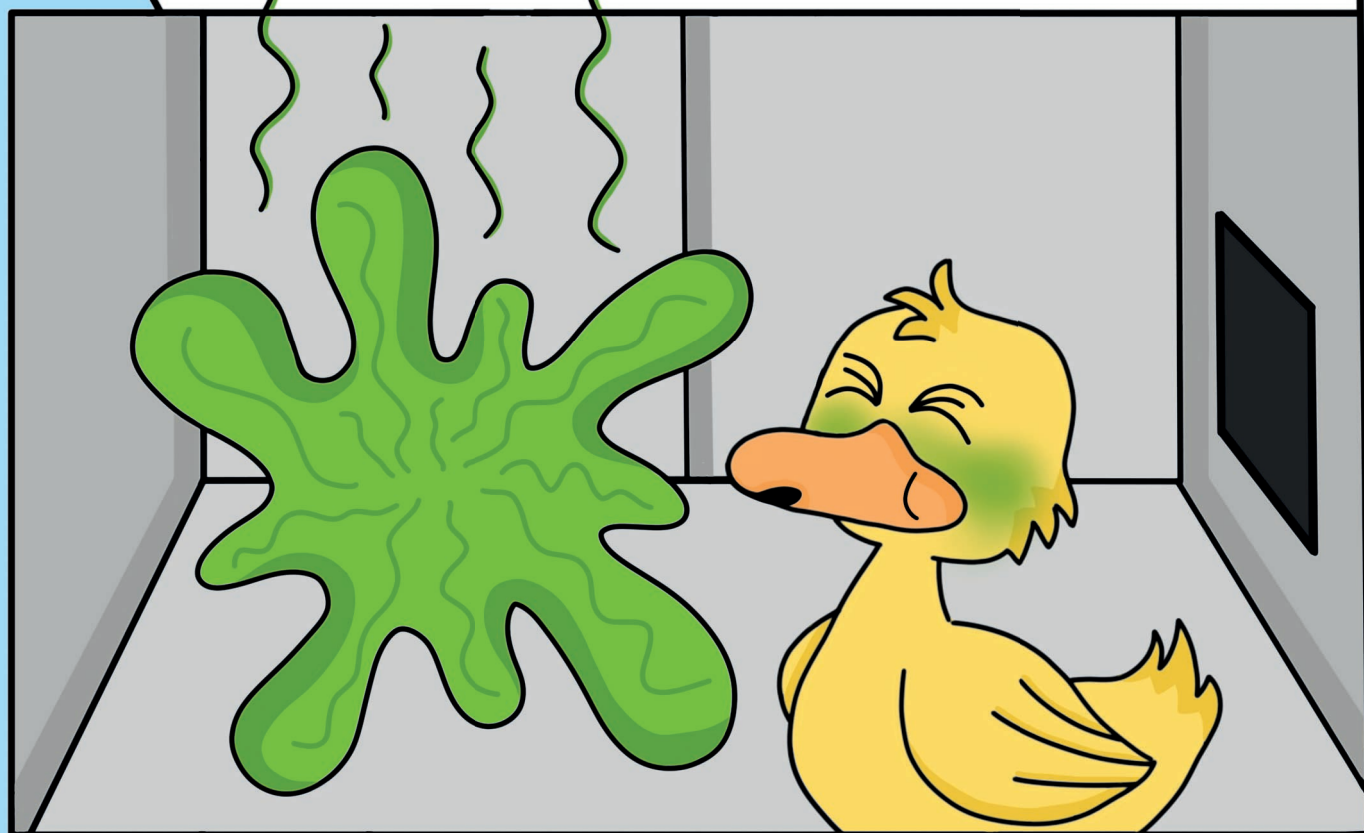
BUT AS THE DOORS CLOSE, THE ELEVATOR

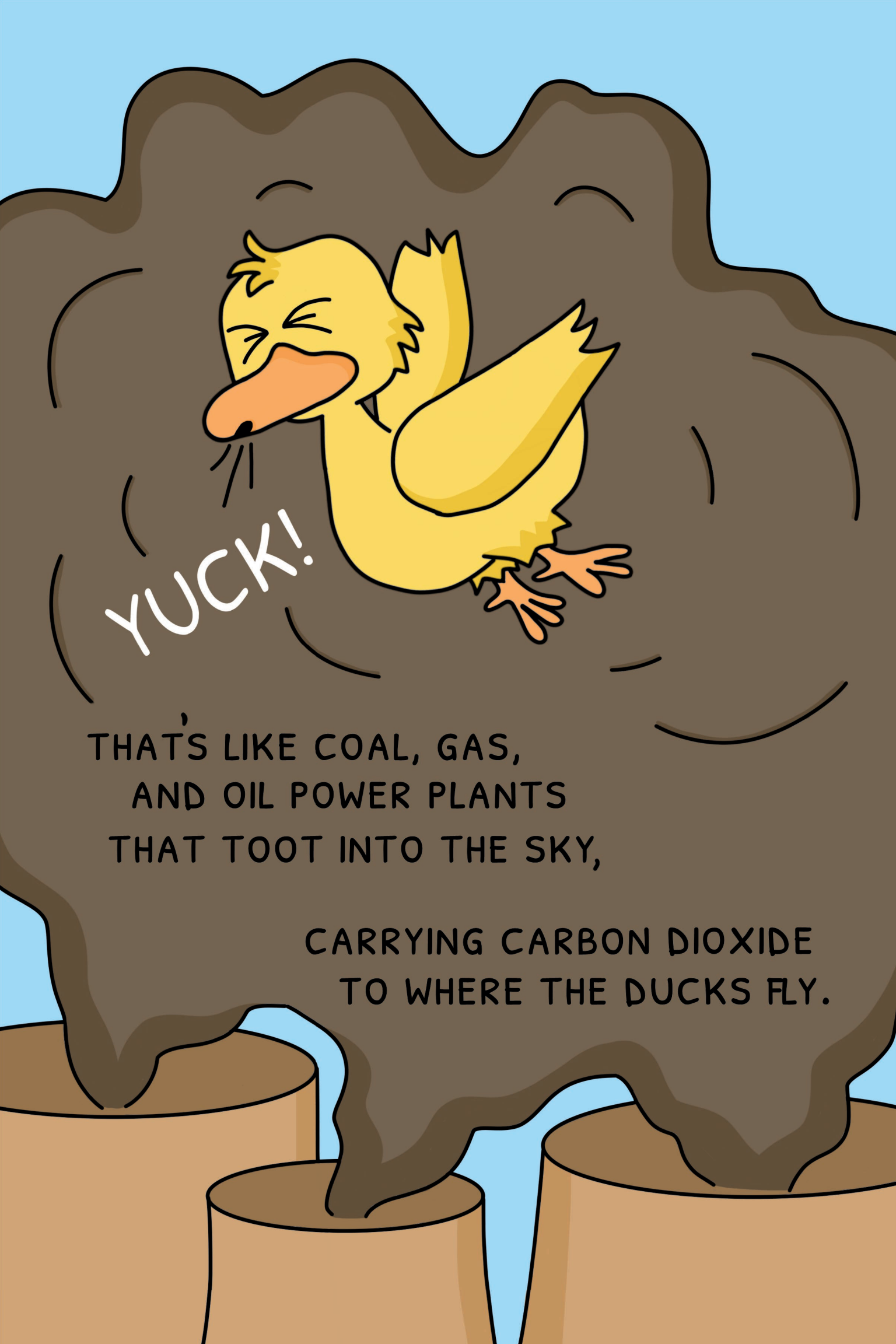
JERKS TO A START...



AND YOU REALIZE THEY LEFT YOU

WITH ONE STINKY FART!



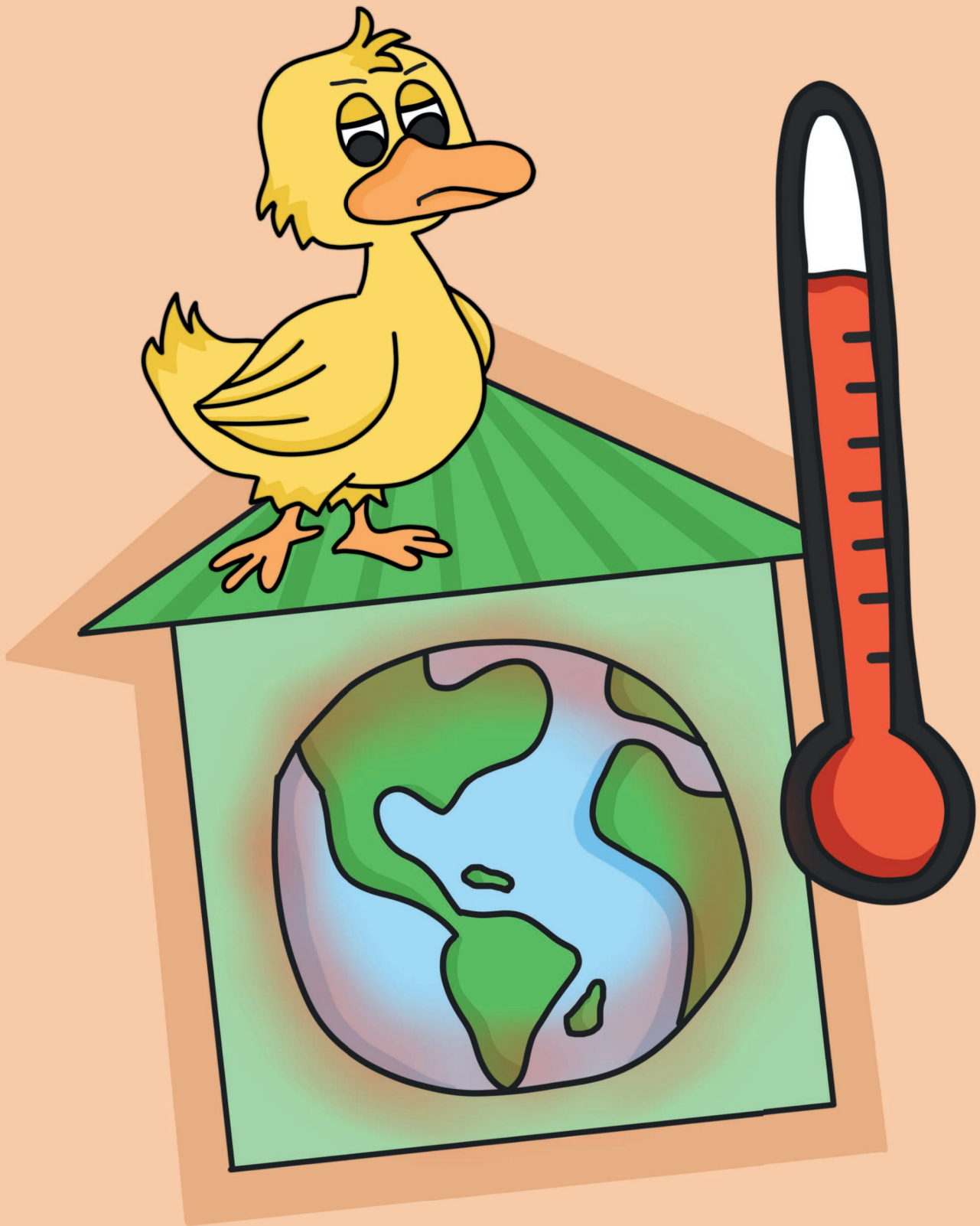


YUCK!

THAT'S LIKE COAL, GAS,  
AND OIL POWER PLANTS  
THAT TOOT INTO THE SKY,

CARRYING CARBON DIOXIDE  
TO WHERE THE DUCKS FLY.

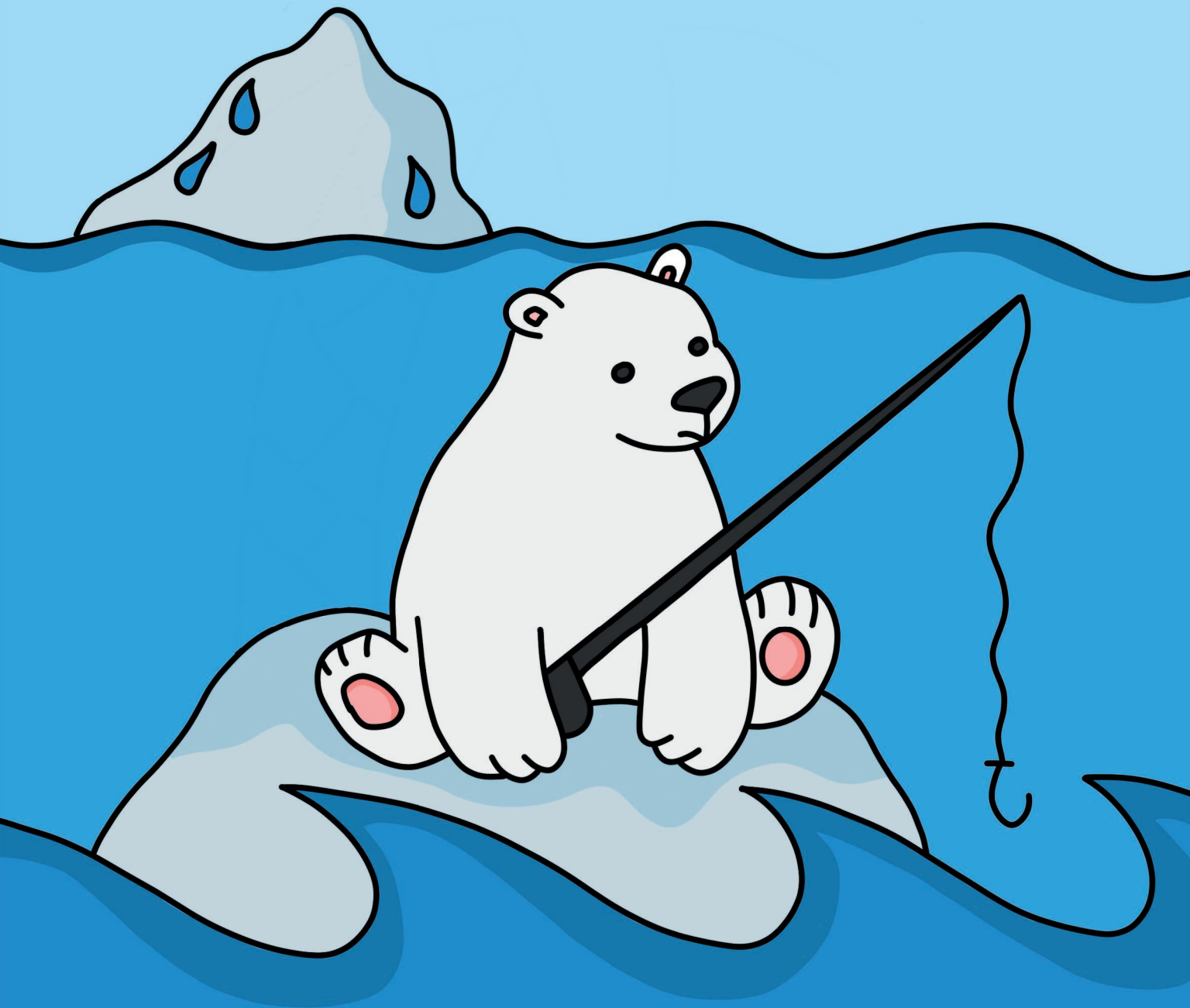




CARBON CREATES A GREENHOUSE  
THAT CHANGES THE WEATHER,  
MAKING THE WORLD WARMER...  
BUT NOT FOR THE BETTER.



CARBON TRAPS HEAT  
SO THE WORLD JUST GETS HOTTER,  
TURNING FORESTS TO DESERT  
AND ICE INTO WATER.





SO TO SAVE OUR  
ENVIRONMENT,

WE SIMPLY CAN'T  
RISK IT,

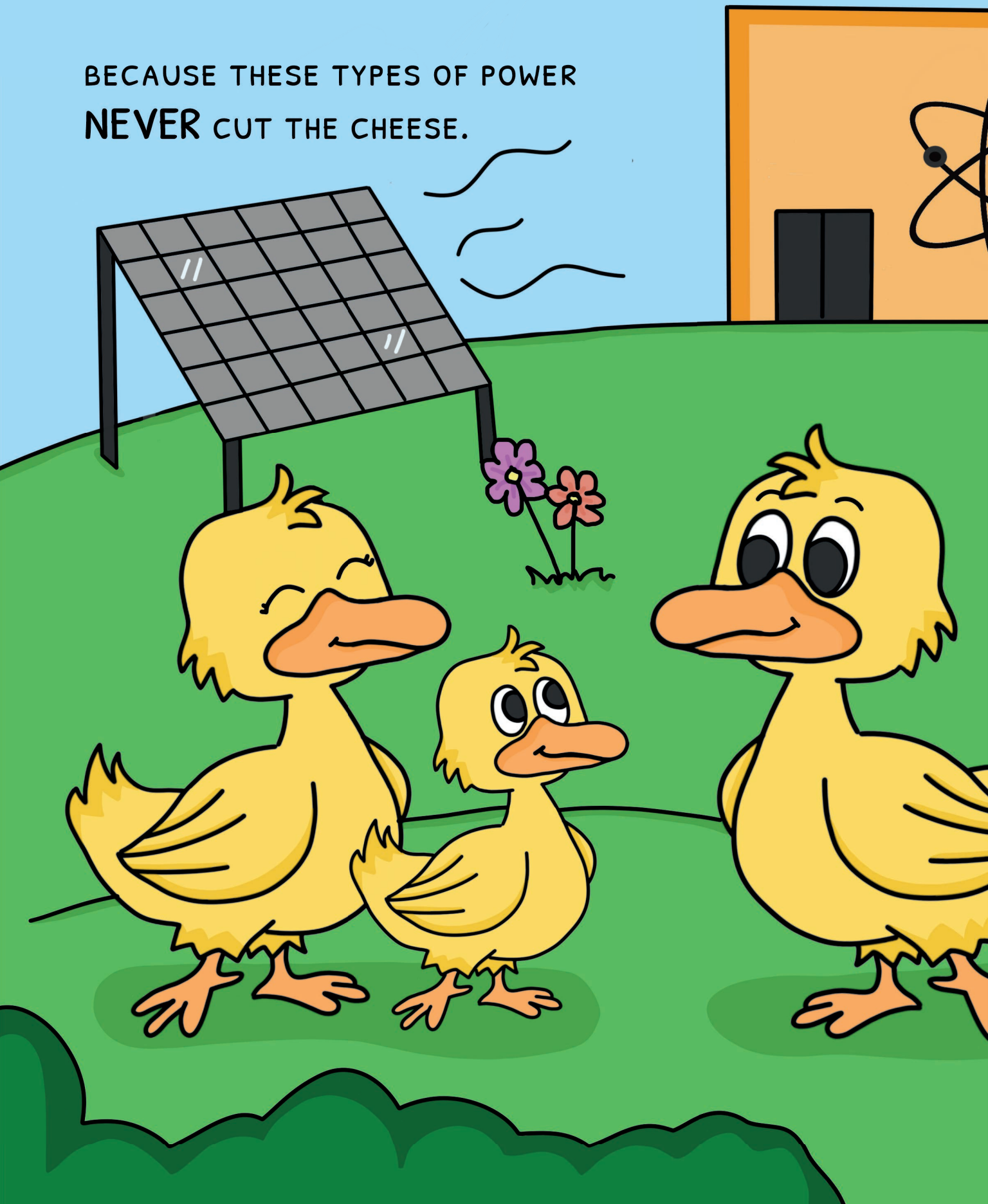
AND LET  
FOSSIL FUELS  
GET AWAY

WITH THESE NASTY AIR BISCUITS.

BUT FEAR NOT, AS THERE IS A SOLUTION...  
TO CREATE ELECTRICITY WITHOUT AIRBORNE POLLUTION.

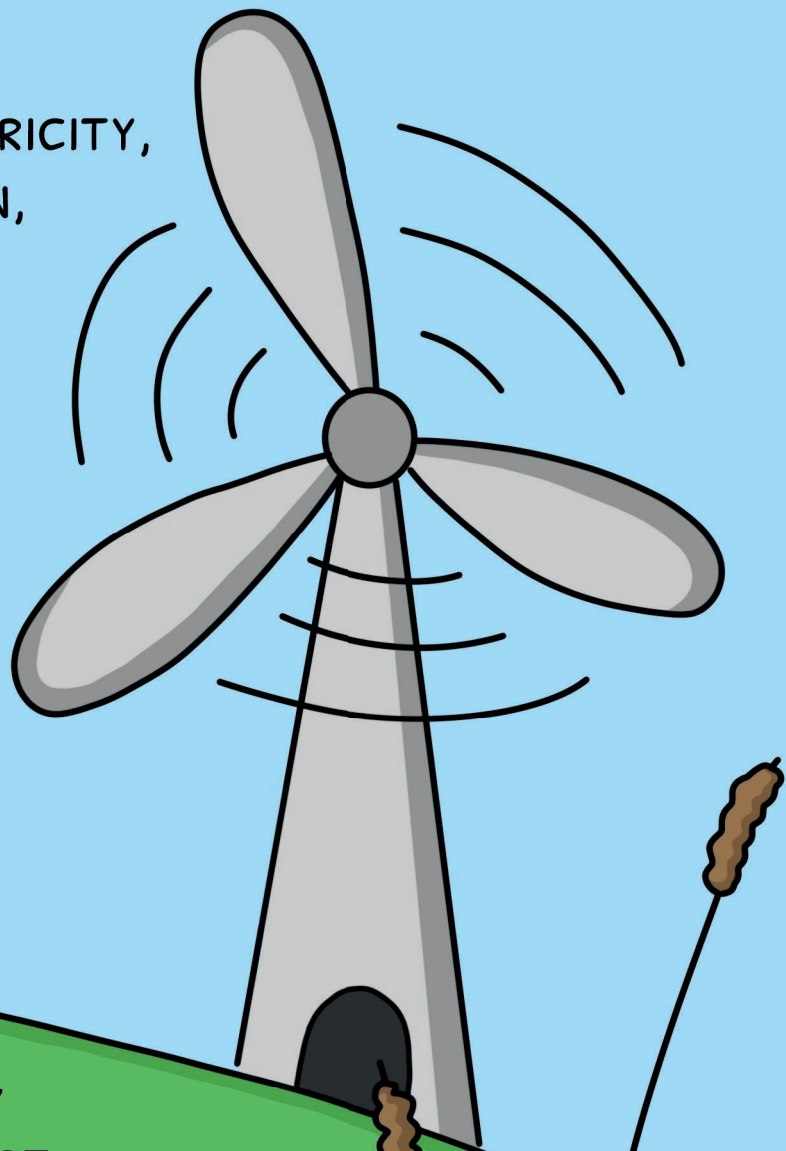
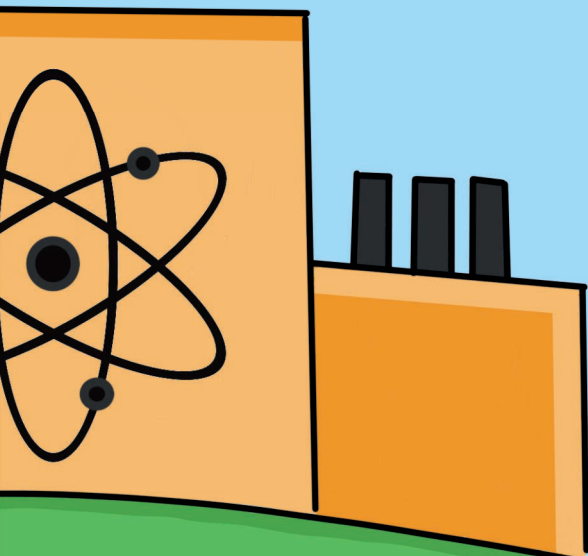
WE NEED MORE CLEAN ENERGY:  
NUCLEAR! WIND! AND SOLAR PLEASE!

BECAUSE THESE TYPES OF POWER  
**NEVER** CUT THE CHEESE.





THEY MAKE LOTS OF ELECTRICITY,  
WHICH CAN POWER OUR FUN,  
AND NOT STINK UP THE AIR  
LIKE BURPS FROM A BUM.




CLEAN ENERGY AIN'T SMELLY  
AND THAT'S JUST A FACT,  
SO NOW IS THE TIME  
TO CLEAN UP OUR ACT.



BUT SOME OF US STILL JUST DON'T GIVE A HOOT,  
ABOUT THESE OIL AND GAS POWER PLANTS  
THAT CONTINUE TO TOOT.







SO TO GET OUR POINT ACROSS,  
MY FRIENDS WILL SING IT IN MEDLEY...





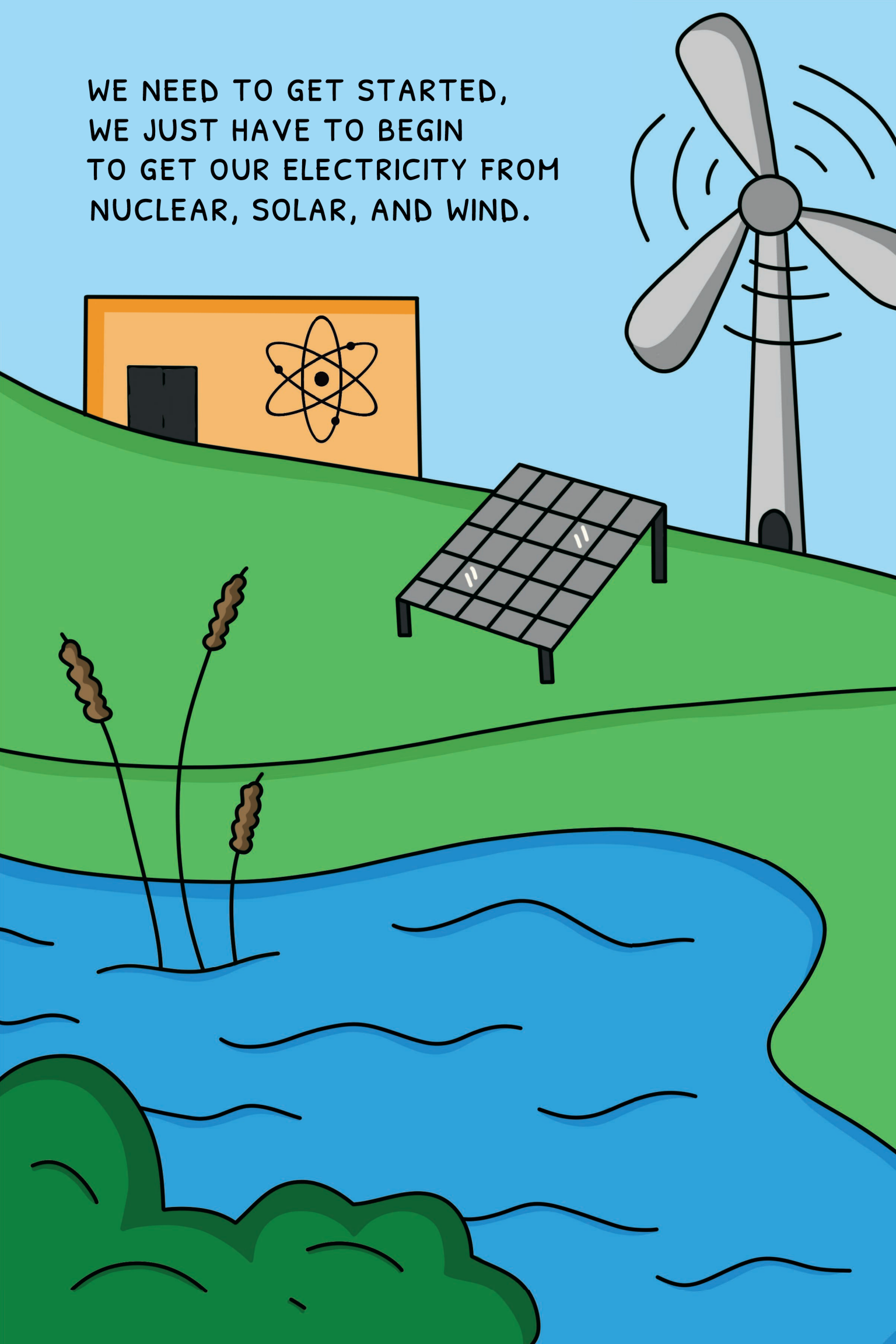
THESE CARBON EM  
ARE SILENT BUT D



**MISSIONS  
READY!**



WE NEED TO GET STARTED,  
WE JUST HAVE TO BEGIN  
TO GET OUR ELECTRICITY FROM  
NUCLEAR, SOLAR, AND WIND.



SO LET'S HELP OUT THE DUCKS  
AND FIND BETTER WAYS...

TO POWER OUR LIVES  
AND COOL DOWN OUR DAYS.





# Glossary

## CARBON DIOXIDE:

A TINY PARTICLE THAT IS CREATED BY BURNING FOSSIL FUELS, DRIVING YOUR CAR, OR EVEN JUST BREATHING. IT TRAPS HEAT THAT THE EARTH RECEIVES FROM THE SUN CAUSING THE WORLD TO GET WARMER. THE GOOD NEWS IS PLANTS LIKE TREES, GRASS, AND FLOWERS ABSORB CARBON DIOXIDE, TAKING IT OUT OF THE AIR.

## CLEAN ENERGY:

ELECTRICITY THAT CAN BE PRODUCED WITHOUT CREATING MORE CARBON DIOXIDE. NUCLEAR, WIND, SOLAR, AND HYDRO POWER ARE ALL EXCELLENT EXAMPLES OF CLEAN ENERGY.

## FOSSIL FUELS:

OIL, NATURAL GAS, AND COAL ARE ALL MADE FROM CARBON THAT HAS BEEN TRAPPED UNDERGROUND FOR MILLIONS OF YEARS. THEY CONTAIN A LOT OF ENERGY BUT THEY CAUSE A LOT OF POLLUTION WHEN THEY ARE BURNED, PUTTING TONS OF CARBON DIOXIDE INTO THE AIR.

## GREENHOUSE EFFECT:

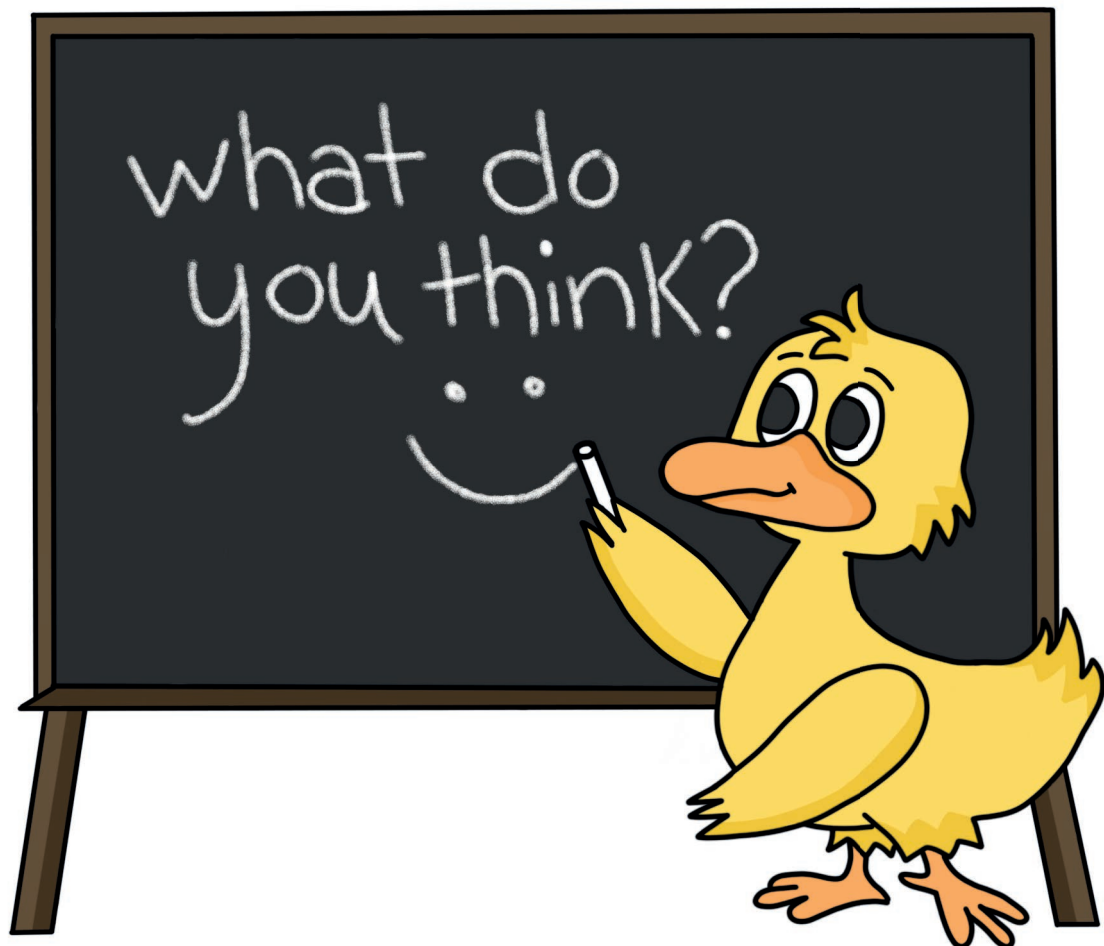
CARBON DIOXIDE IN THE AIR ALLOWS ENERGY FROM THE SUN INTO OUR ATMOSPHERE, BUT DOESN'T LET IT ESCAPE. THIS TURNS OUR ATMOSPHERE INTO A "GREENHOUSE," CAUSING TEMPERATURES TO RISE ALL AROUND THE WORLD.

## POWER PLANT:

WHERE ELECTRICITY IS MADE! ELECTRICITY CAN BE PRODUCED FROM THE BURNING OF FOSSIL FUELS, THE MOVEMENT OF WIND AND WATER AND THE CAPTURING OF ENERGY FROM NUCLEAR AND SOLAR.

# Questions

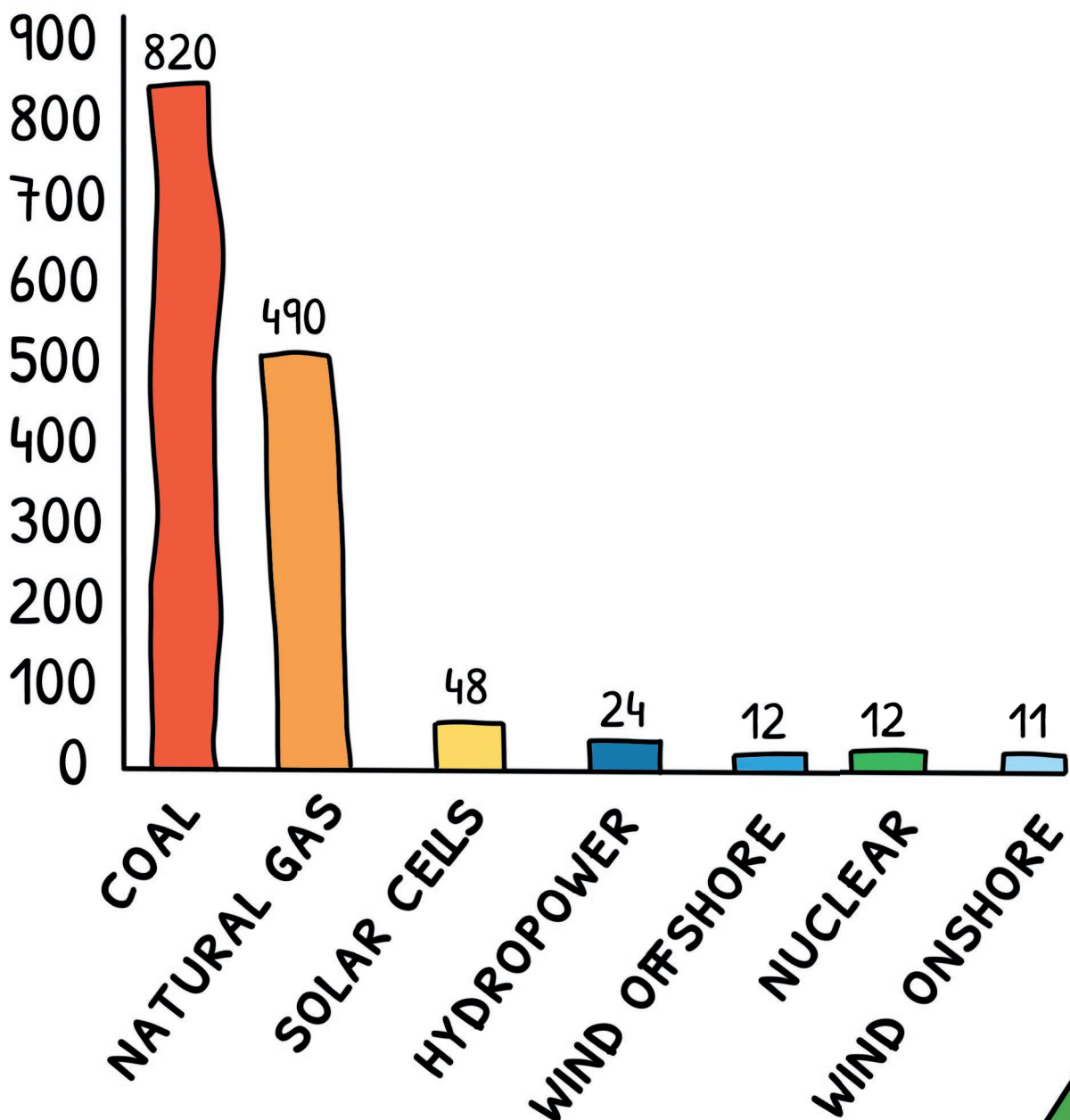
- 1) WHAT IS CARBON DIOXIDE? WHERE DOES IT COME FROM?
- 2) HOW DOES CARBON DIOXIDE AFFECT THE EARTH?
- 3) WHAT CAN WE DO TO LIMIT HOW MUCH CARBON WE PUT IN THE AIR?
- 4) WHAT ARE GOOD EXAMPLES OF CLEAN ENERGY THAT DON'T PUT CARBON INTO THE ATMOSPHERE?



# HOW MUCH CARBON DIOXIDE DOES EACH ENERGY SOURCE CREATE?

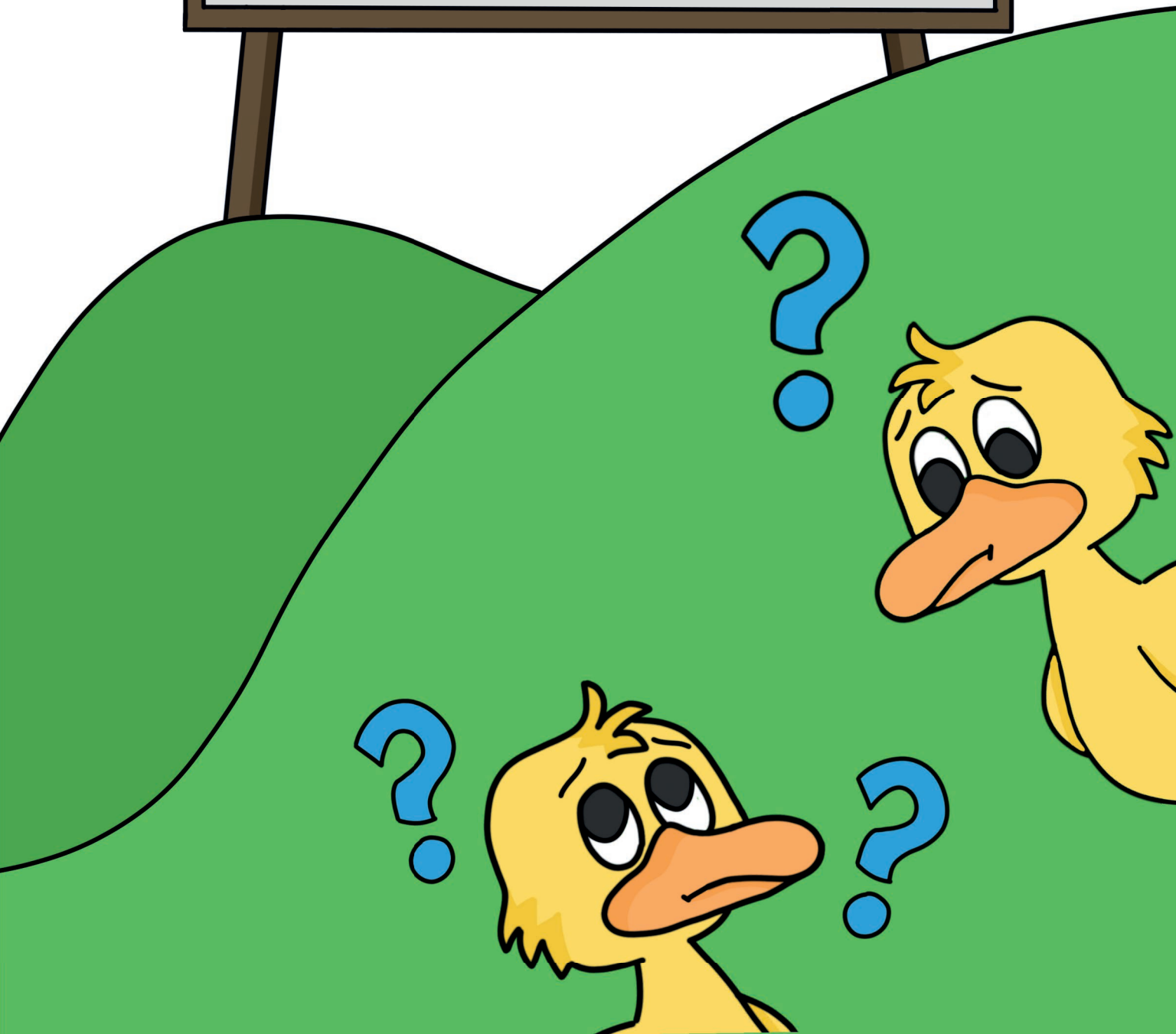
\*GRAMS OF CO<sub>2</sub> PER kWh

FROM THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (2014)



# Questions

- 1) WHEN YOU LOOK AT THIS GRAPH, DOES ANYTHING SURPRISE YOU?
- 2) HOW DOES THE WEATHER AFFECT EACH SOURCE? (POSITIVELY, NEGATIVELY, NO CHANGE?)
- 3) WHAT IS THE BEST THING WE CAN DO TO LOWER CARBON EMISSIONS?





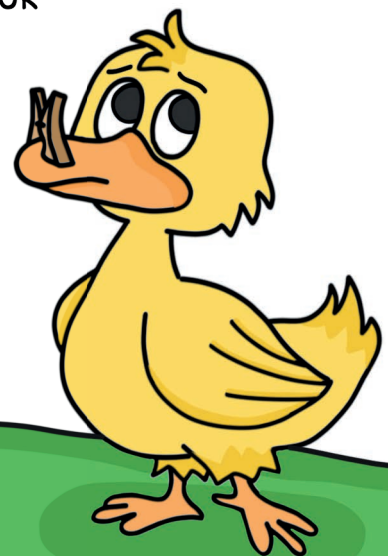
## **NORTH AMERICAN YOUNG GENERATION IN NUCLEAR (NAYGN)**

PROVIDES OPPORTUNITIES FOR A YOUNG GENERATION OF NUCLEAR ENTHUSIASTS TO DEVELOP LEADERSHIP AND PROFESSIONAL SKILLS, CREATE LIFE-LONG CONNECTIONS, ENGAGE AND INFORM THE PUBLIC, AND INSPIRE TODAY'S NUCLEAR TECHNOLOGY PROFESSIONALS TO MEET THE CHALLENGES OF THE 21<sup>ST</sup> CENTURY.

NAYGN WAS ESTABLISHED IN 1999 AND NOW CONSISTS OF 100+ CHAPTERS ACROSS NORTH AMERICA.

NAYGN'S VISION IS TO DEVELOP LEADERS TO ENERGIZE THE FUTURE OF NUCLEAR. WE PROVIDE OUR MEMBERS OPPORTUNITIES TO FOCUS THEIR ENERGY TOWARDS IMPROVING THE NUCLEAR INDUSTRY AND COMMUNICATING WITH THE PUBLIC ABOUT THE BENEFITS OF NUCLEAR ENERGY.

WE DON'T DO THIS ALONE. NAYGN IS A NETWORK SPANNING THOUSANDS OF YOUNG NUCLEAR PROFESSIONALS IN NORTH AMERICA, EACH DOING THEIR PART TO MAKE OUR INDUSTRY BETTER. AS A GRASSROOTS VOLUNTEER ORGANIZATION, NAYGN MEMBERS DECIDE AND DEVELOP THE CONTENT THAT NAYGN BRINGS.





THIS BOOK WAS FUNDED BY THE NORTH AMERICAN YOUNG GENERATION IN NUCLEAR. THE BOOK PROJECT WAS ORGANIZED AND WRITTEN BY THE FOLLOWING MEMBERS OF NAYGN AND NII: PHILLIP CRAIG, NAIF SIDDIQUI, AMANDA LANG, SUSIE HO, DANA VAN ALLEN, AND BRUCE WALLACE.

ILLUSTRATOR: MEGAN SAUER OF SWEET & SAUER STUDIOS

FOR MORE INFORMATION ABOUT NUCLEAR ENERGY, CHECK OUT THE FOLLOWING RESOURCE:

[NAYGN.ORG/COMMITTEES/PUBLIC-INFORMATION/](http://NAYGN.ORG/COMMITTEES/PUBLIC-INFORMATION/)

IF YOU ENJOYED **PASSING GAS**, PLEASE CHECK OUT MARIÉ'S ELECTRIC ADVENTURE AND GEORGE'S ENERGY ADVENTURE PUBLISHED BY NAYGN. FREE E-BOOK IS AVAILABLE AT:

[NAYGN.ORG/COMMITTEES/PUBLIC-INFORMATION/LITERACY/](http://NAYGN.ORG/COMMITTEES/PUBLIC-INFORMATION/LITERACY/)



NUCLEAR  
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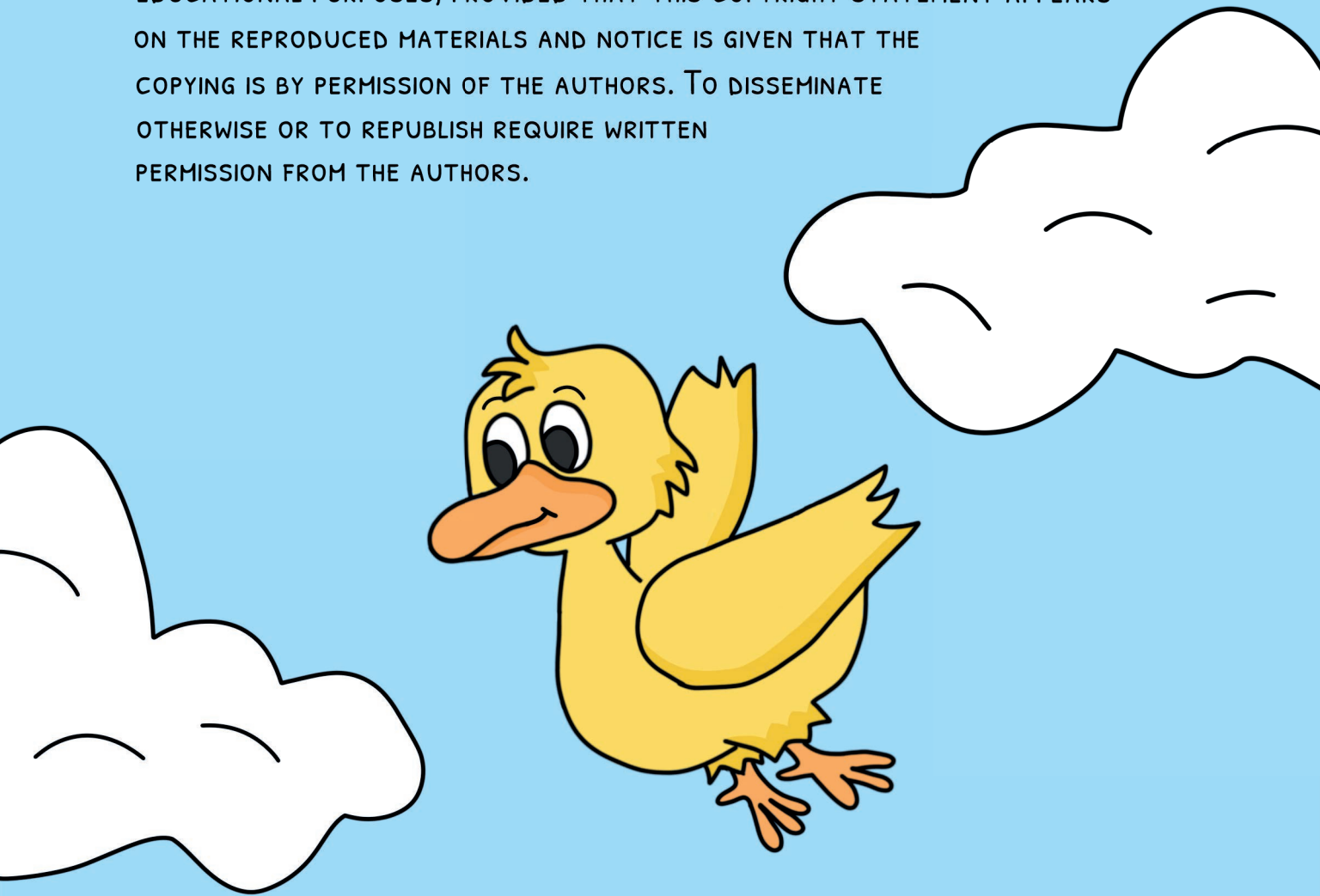
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