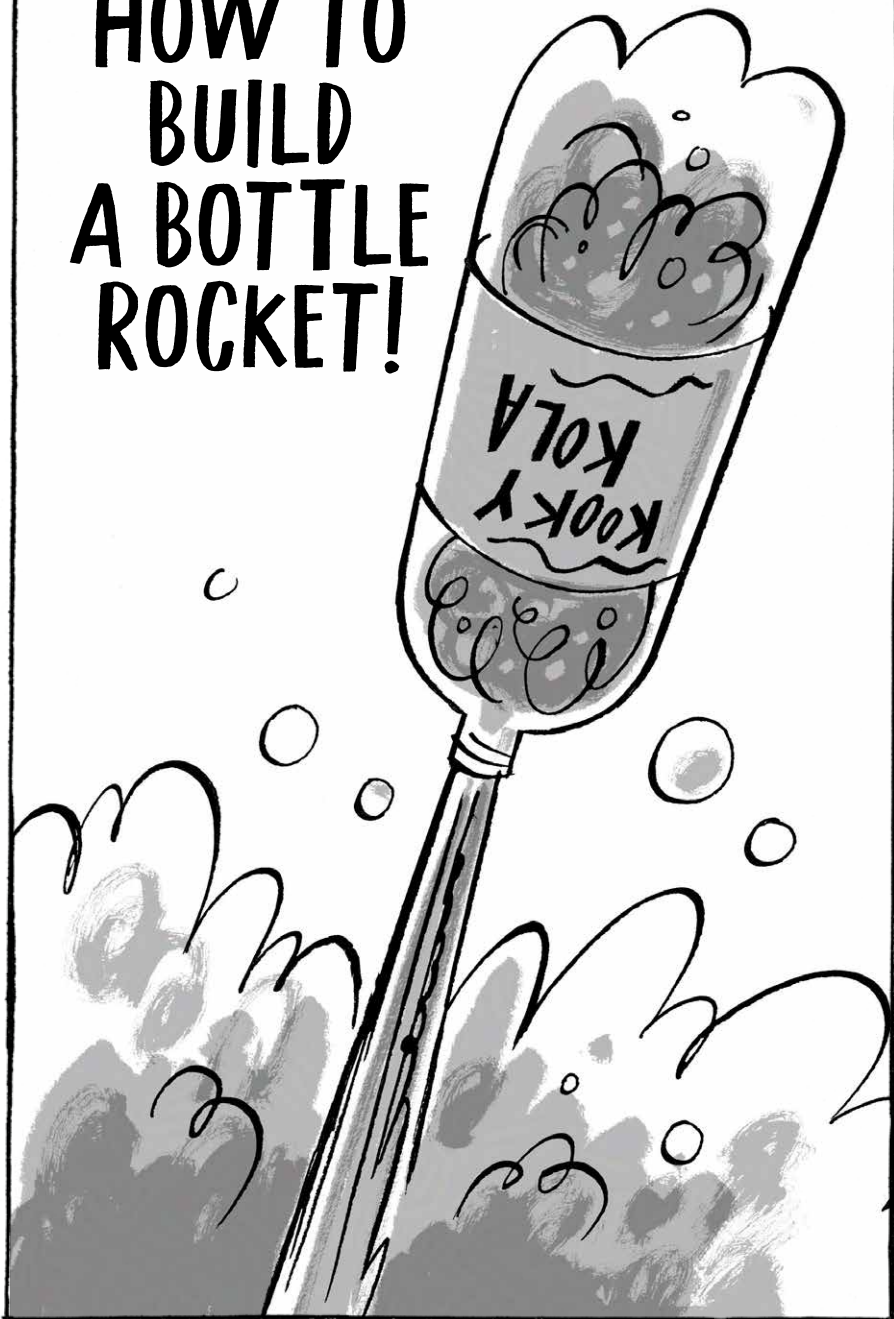
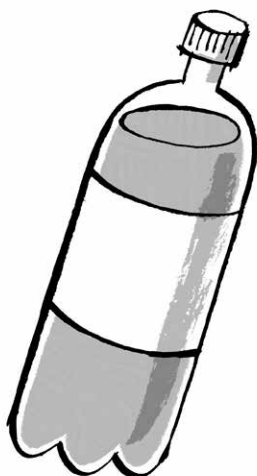


HOW TO BUILD A BOTTLE ROCKET!



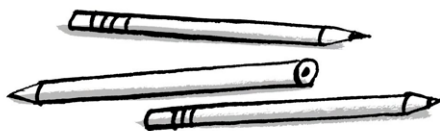
YOU WILL NEED:



A BIG BOTTLE OF
DIET COKE



A PACK OF MENTOS
[MINT FLAVOUR]



THREE OR FOUR
PENCILS



A CORK



SAFETY GOGGLES



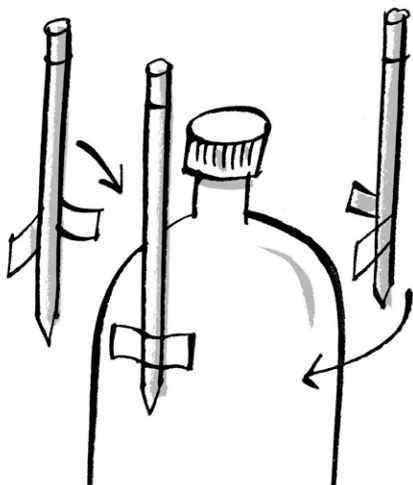
STICKY TAPE



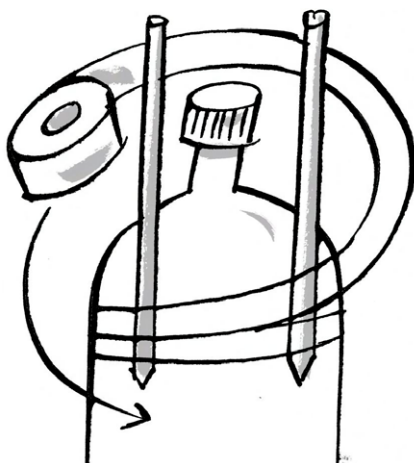
A NICE FLAT OUTDOOR SPACE THAT YOU
DON'T MIND GETTING COVERED IN COLA

STEP 1

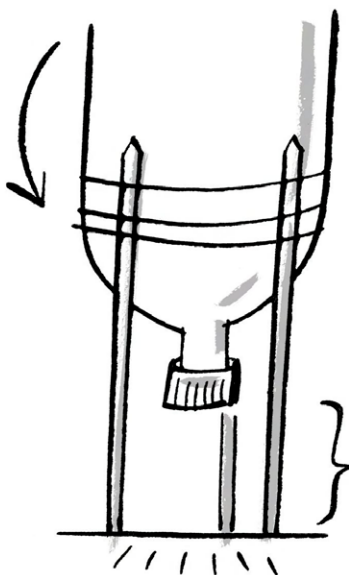
MAKE THE ROCKET



BUILD SOME LAUNCH LUGS*
BY TAPING THE PENCILS TO
THE SIDE OF THE BOTTLE.



ONCE THE LUGS ARE IN
PLACE, WRAP THE TAPE
AROUND THE BOTTLE
A FEW TIMES TO MAKE
THEM NICE AND SECURE.



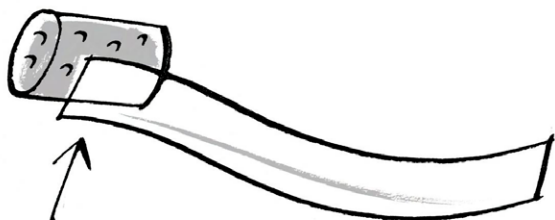
CAREFULLY TURN THE
BOTTLE UPSIDE DOWN AND
MAKE SURE IT CAN STAND
SECURELY ON THE LUGS
WITHOUT LEANING OR
FALLING OVER.

THE LUGS SHOULD BE LONG
ENOUGH TO KEEP THE
BOTTLE CAP WELL CLEAR
OF THE GROUND.

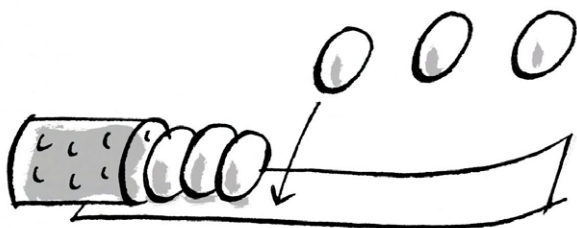
*OFFICIAL ROCKETEER WORD

STEP 2

PREPARE THE FUSE



TAKE A LONG STRIP OF TAPE AND
STICK ONE END TO THE CORK.



LIE THE TAPE DOWN – STICKY SIDE UP – AND LINE UP
THE MENTOS SIDE BY SIDE NEXT TO THE CORK UNTIL
YOU'RE ALMOST AT THE MIDDLE OF THE TAPE.



LOOP THE LOOSE END OF THE TAPE BACK OVER THE
MENTOS AND STICK IT TO THE CORK.

STEP 3

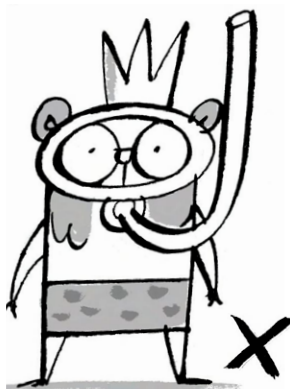
SAFETY CHECKS

HOLD THE CORK NEXT TO THE BOTTLE. DOES IT LOOK AS IF THE MENTOS WILL TOUCH THE COLA WHEN YOU REPLACE THE BOTTLE CAP WITH THE CORK?

IF SO, YOU MAY NEED TO POUR AWAY SOME OF THE COLA.
[OR REMOVE SOME OF THE MENTOS]



WE DON'T WANT THE MENTOS TO TOUCH THE COLA BEFORE WE'RE READY TO LAUNCH.



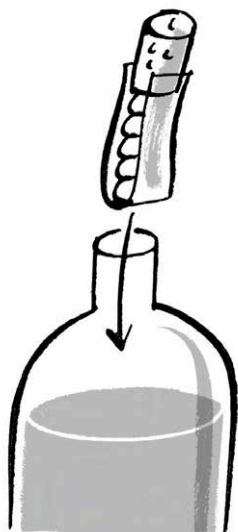
PUT ON YOUR SAFETY EQUIPMENT. BOTTLE ROCKETS ARE UNPREDICTABLE AND YOU DON'T WANT TO GET HURT IF SOMETHING FLIES OFF IN AN UNEXPECTED DIRECTION.

STEP 4

INITIATE LAUNCH SEQUENCE

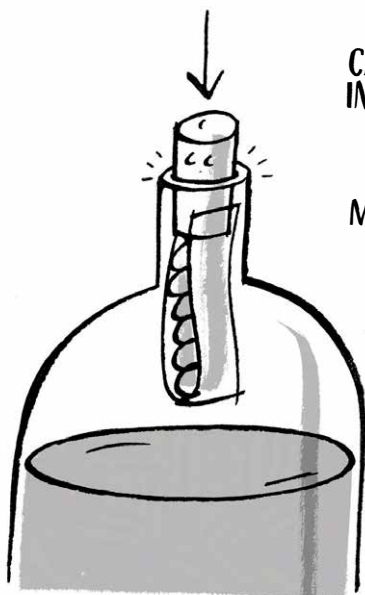


REMOVE THE PLASTIC
CAP FROM THE BOTTLE



CAREFULLY LOWER THE MENTOS
INTO THE BOTTLE AND SEAL THE
BOTTLE WITH THE CORK.

REMEMBER – NONE OF THE
MENTOS SHOULD BE TOUCHING
THE COLA YET.



MAKE SURE THE CORK IS
PUSHED IN NICE AND FIRMLY.
THIS STOPS THE ROCKET FIRING
TOO EARLY. MAKING IT FLY
HIGHER AND GIVING YOU MORE
TIME TO GET OUT OF THE WAY.

STEP 5 BLAST OFF!



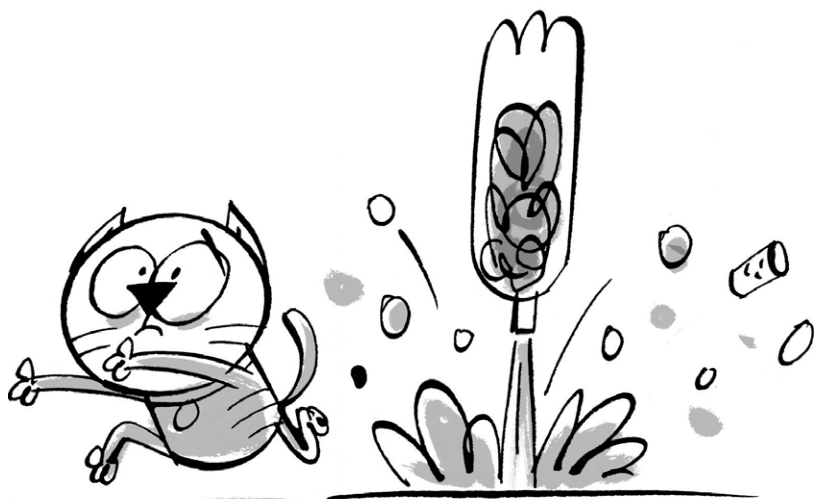
MOVE THE BOTTLE TO THE
LAUNCH ZONE AND CROUCH
DOWN AS LOW AS YOU CAN
TO THE SIDE

DO NOT STAND OVER
THE ROCKET!



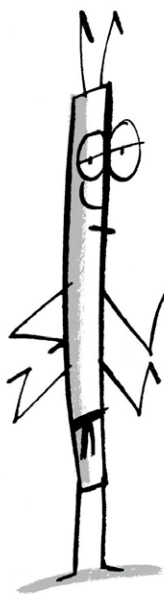
IN ONE SWIFT MOVEMENT,
TURN THE BOTTLE UPSIDE
DOWN AND STAND IT ON
THE LUGS

MOVE AWAY AS QUICKLY
AS YOU CAN!



THE ROCKET SHOULD FIRE AFTER A FEW SECONDS

THE SCIENCE BIT:



SO HOW DOES IT WORK?

COLA CONTAINS A GAS CALLED CARBON DIOXIDE WHICH FORMS BUBBLES WHEN IT MEETS A ROUGH SURFACE.

THE MENTOS HAVE EXACTLY THE ROUGHNESS OF SURFACE THAT SENDS CARBON DIOXIDE WILD.

WHEN THE COLA MEETS THE MENTOS BUBBLES FORM INCREDIBLY QUICKLY.

AS THE BUBBLES RUSH TO ESCAPE THE BOTTLE THEY PUSH OUT THE CORK AND BLAST THE BOTTLE UPWARDS.

TOP TIPS:

DIET COLA WORKS WAY BETTER THAN NORMAL COLA.

USE A BIG BOTTLE – E.G. 2 LITRES.

TRY NOT TO SHAKE THE BOTTLE TOO MUCH AS YOU BUILD.
YOU WANT THE COLA TO KEEP AS MUCH FIZZ AS POSSIBLE.

DON'T PUT YOUR COLA IN THE FRIDGE!
IN FACT, LEAVE IT OUT IN THE SUN IF YOU CAN.

YOU MAY NEED TO EXPERIMENT WITH THE NUMBER OF MENTOS.
TOO FEW OR TOO MANY AND THE ROCKET MAY MISFIRE.
SIX OR SEVEN FOR A 2L BOTTLE IS A GOOD PLACE TO START.