

PLANS FOR MAKING A BOTTLE ROCKET

PLASTIC BOTTLE

CORK

VALVE

FINS

INCLUDES PLANS FOR WATER PRESSURE
AND BAKING SODA / VINEGAR ROCKET



MATERIALS LIST

THINGS YOU'LL NEED FOR A WATER PRESSURE ROCKET

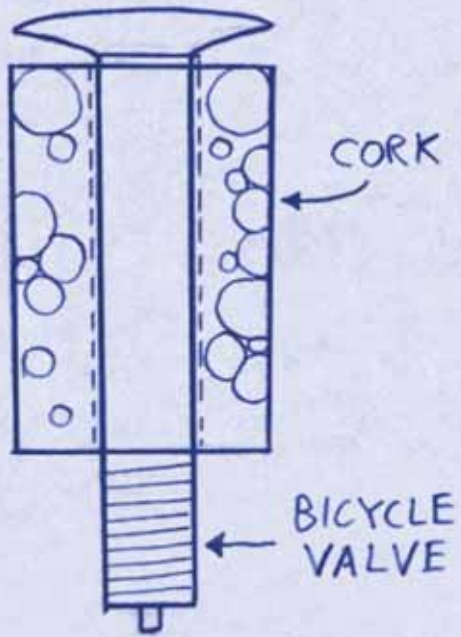
- *LARGE PLASTIC SOFT DRINK BOTTLE 1-2L (EMPTY)*
- *A CORK FROM A WINE BOTTLE*
- *AN OLD BICYCLE INNER TUBE
(PREFERABLY WITH THE THINNER TYPE OF VALVE)*
- *A DRILL (MAKE SURE AN ADULT HELPS YOU USE THIS)*
- *A BICYCLE PUMP*
- *BRICKS OR WOOD FOR THE LAUNCH PAD*
- *CARDBOARD AND TAPE FOR THE NOSE CONE AND FINS*

*THE BEST PLACES TO
GET THESE FROM ARE:*

*ANY HARDWARE
STORE OR AROUND
THE HOUSE!*

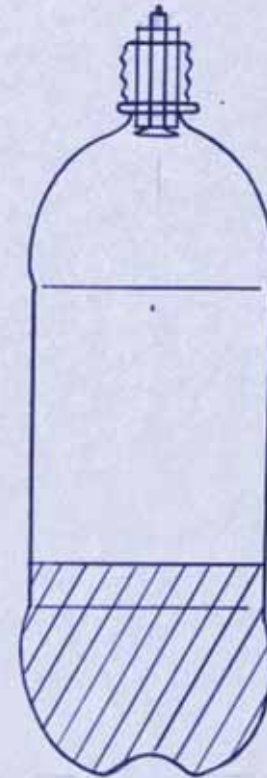
Step 1

CUT OUT THE VALVE FROM A BICYCLE INNER TUBE, LEAVING A SMALL CIRCLE OF RUBBER AROUND THE BOTTOM. (KEEP THE REST OF THE INNER TUBE TO MAKE A CATAPULT ON ANOTHER DAY). CHECK THE LENGTH OF YOUR VALVE AGAINST THE CORK TO MAKE SURE THE VALVE POKES THROUGH ENOUGH SO THE PUMP CAN BE ATTACHED. IF NOT, CUT THE CORK DOWN WITH A SHARP KITCHEN VEGETABLE KNIFE.



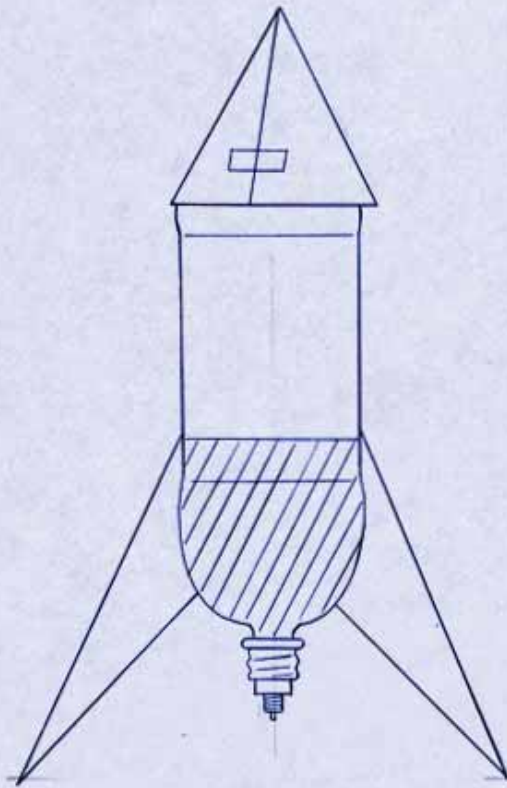
Step 2

USING A DRILL THAT HAS A DIAMETER EQUAL TO YOUR VALVE, CAREFULLY AND SLOWLY DRILL THROUGH THE CENTRE OF THE CORK. INSERT THE VALVE INTO THE CORK (A SMEAR OF VASELINE OR COOKING OIL MAY HELP).



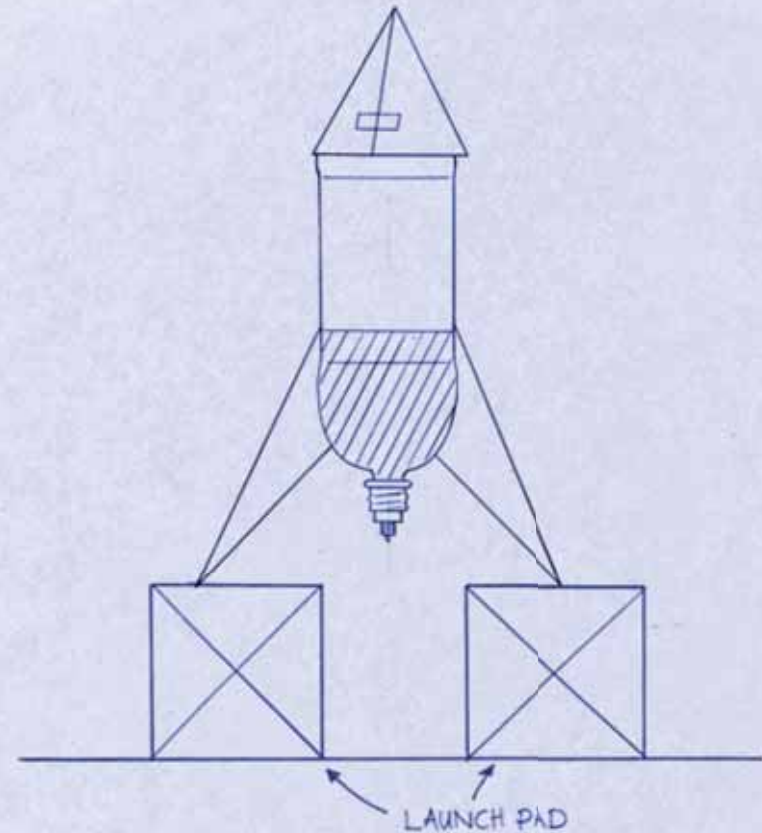
Step 3

DECORATE YOUR BOTTLE WITH STICKERS AND PAINT TO MAKE IT REALLY LOOK LIKE A ROCKET. ADDING WINGS AND A NOSE CONE TO THE ROCKET NOT ONLY MAKES IT LOOK COOL BUT ALSO HELPS WITH STABILITY. FILL THE PLASTIC BOTTLE WITH 1/3 WATER AND FIRMLY INSERT YOUR CORK-VALVE ASSEMBLY.



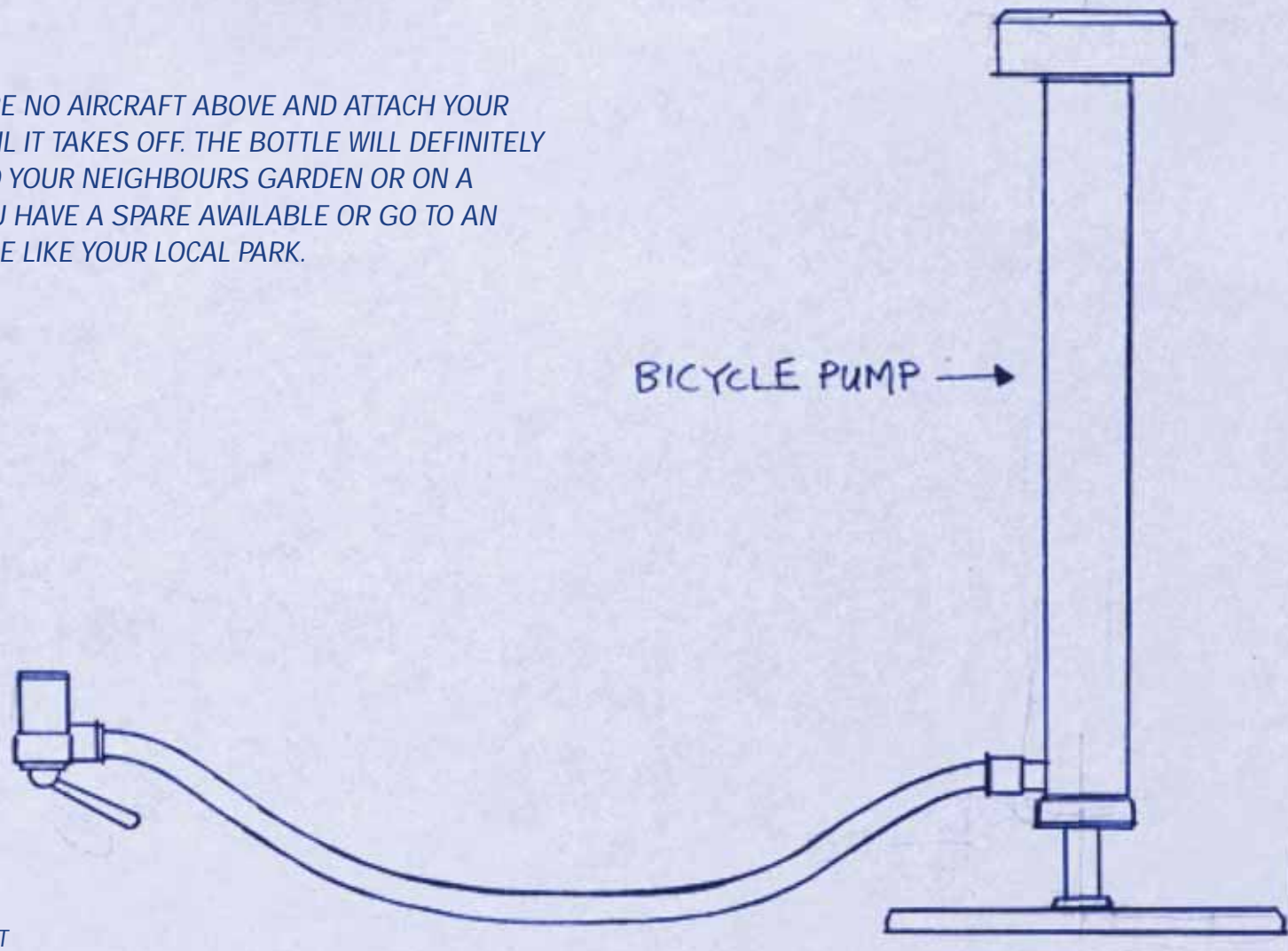
Step 4

MAKE A LAUNCHING PAD FOR THE ROCKET. DIG A COUPLE OF BITS OF WOOD INTO THE MUD AND PROP THEM UP WITH STONES IN A "V" SHAPE TO SUPPORT THE BOTTLE. STIFF CARDBOARD OR BRICKS WOULD ALSO WORK FINE.



Step 5

FINALLY CHECK THERE ARE NO AIRCRAFT ABOVE AND ATTACH YOUR PUMP. GET PUMPING UNTIL IT TAKES OFF. THE BOTTLE WILL DEFINITELY GO OVER THE FENCE INTO YOUR NEIGHBOURS GARDEN OR ON A ROOF SO MAKE SURE YOU HAVE A SPARE AVAILABLE OR GO TO AN AREA WITH LOTS OF SPACE LIKE YOUR LOCAL PARK.



HINTS AND WARNINGS: THIS ROCKET REALLY SHOOTS OFF FAST, SO MAKE SURE YOU HAVE AN ADULT AROUND TO SUPERVISE. DON'T THROW THE ROCKET AT CARS, HOUSES OR OTHER PEOPLE. SLIGHTLY ADJUST THE WATER LEVEL FOR OPTIMUM PERFORMANCE.

PLANS FOR MAKING A
BAKING SODA AND
VINEGAR ROCKET



MATERIALS LIST

THINGS YOU'LL NEED FOR A BAKING SODA AND VINEGAR ROCKET

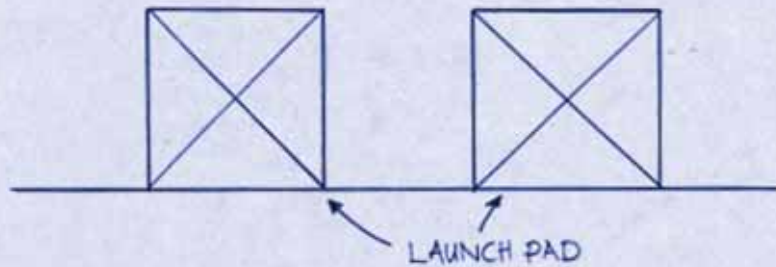
- *LARGE PLASTIC SOFT DRINK BOTTLE 1-2L (EMPTY)*
- *BAKING SODA (APPROX. 2-3 TABLE SPOONS)*
- *VINEGAR (APPROX. 3/4 CUP)*
- *A CORK FROM A WINE BOTTLE*
- *A FUNNEL*
- *BRICKS OR WOOD FOR A LAUNCH PAD*
- *CARDBOARD AND TAPE FOR THE NOSE CONE AND FINS*

THE BEST PLACES TO GET THESE FROM ARE:

AROUND THE HOUSE OR TRY YOUR LOCAL SUPERMARKET!

Step 1

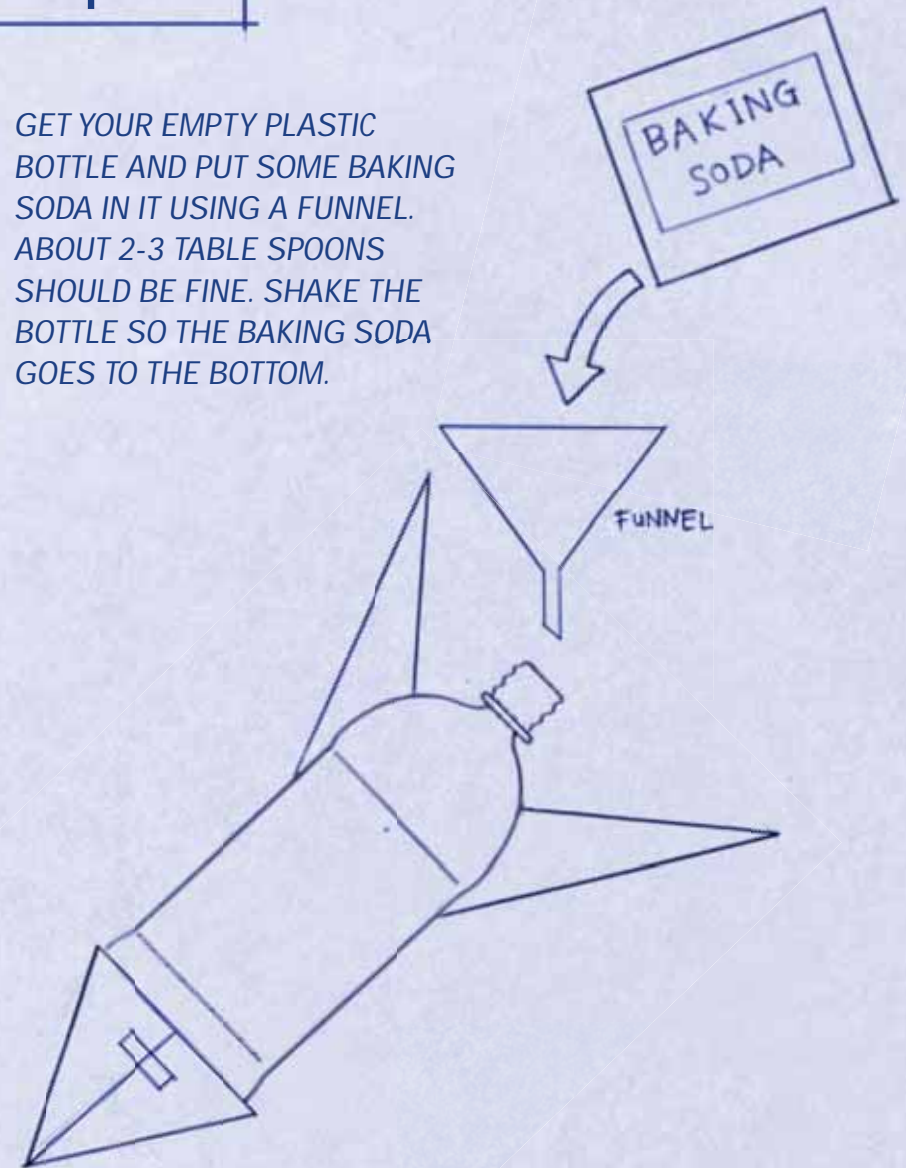
START BY MAKING A PLATFORM FOR YOUR ROCKET USING SOME BRICKS IN A TRIANGLE FORMATION. BITS OF WOOD WOULD ALSO WORK FINE.



DECORATE YOUR BOTTLE WITH STICKERS AND PAINT TO MAKE IT REALLY LOOK LIKE A ROCKET. ADDING WINGS TO THE ROCKET NOT ONLY MAKES IT LOOK COOL BUT ALSO HELPS WITH STABILITY.

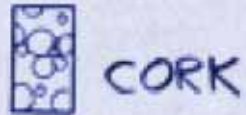
Step 2

GET YOUR EMPTY PLASTIC BOTTLE AND PUT SOME BAKING SODA IN IT USING A FUNNEL. ABOUT 2-3 TABLE SPOONS SHOULD BE FINE. SHAKE THE BOTTLE SO THE BAKING SODA GOES TO THE BOTTOM.



Step 3

GET READY BECAUSE THE NEXT BIT WILL HAPPEN QUICKLY. HAVE YOUR CORK READY AND QUICKLY POUR THE VINEGAR INTO THE BOTTLE. YOU'LL ONLY NEED A LITTLE BIT. 3/4 OF A CUP SHOULD BE ABOUT RIGHT.



HINTS AND WARNINGS: THIS ROCKET REALLY SHOOTS OFF FAST, SO MAKE SURE YOU HAVE AN ADULT AROUND TO SUPERVISE. DON'T THROW THE ROCKET AT CARS, HOUSES OR OTHER PEOPLE. TEST DIFFERENT AMOUNTS OF BAKING SODA AND VINEGAR TO SEE WHAT WORKS THE BEST. USING LESS BAKING SODA AND VINEGAR ACTUALLY MAKES IT GO HIGHER.

Step 4

PUT THE CORK IN THE BOTTLE AND PLACE THE ROCKET ON YOUR LAUNCHING PAD AS FAST AS YOU CAN. WATCH IT FLY!

