



Ketchup Divers

What you need:

CLEAR PLASTIC BOTTLE WITH CAP
KETCHUP PACKETS
WATER
CLEAR DRINKING GLASS



QUIT
SQUEEZING
ME!

What to do:

HEAD TO A NEARBY FAST-FOOD RESTAURANT OR GAS STATION AND PICK UP SEVERAL KETCHUP PACKETS.

PLACE THE PACKETS INTO A DRINKING GLASS FILLED WITH WATER. ONCE YOU FIND A PACKET THAT FLOATS, PLACE IT INTO THE EMPTY PLASTIC BOTTLE AND FILL IT WITH WATER.

WITH THE LID FIRMLY ATTACHED, SQUEEZE THE BOTTLE AND WATCH YOUR PACKET MOVE DOWNWARDS. RELEASING THE BOTTLE SHOULD RESULT IN THE PACKET FLOATING TO THE SURFACE AGAIN.

What's going on?

WHEN KETCHUP PACKETS ARE MADE, DIFFERENT AMOUNTS OF AIR BECOME TRAPPED INSIDE. FLOATING PACKETS HAVE A LARGER VOLUME OF TRAPPED AIR WHICH CAUSES IT TO FLOAT. SQUEEZING THE BOTTLE COMPRESSES THE AIR WITHIN THE PACKET, MAKING IT DENSER. BECAUSE OF THIS, THE PACKET SINKS. WHEN YOU RELEASE THE BOTTLE, THE TRAPPED AIR EXPANDS AND ALLOWS THE PACKET TO BE MORE BUOYANT.