

TRY
MAKING A

DENSE-O-METER

It's not just oil that floats on water!

YOU'LL NEED

Clear container

Food baster or eyedropper

Liquids of
different densities
(use our list, or try out
other liquids on your own!)

rubbing alcohol

vegetable oil

water

dish soap

milk

maple syrup

corn syrup

honey

WHAT TO DO

Sort your liquids in order from heaviest to lightest. You'll be pouring the **heaviest liquid first** (*that's the honey*).Slowly and carefully pour the first liquid. Make sure you **pour right in the middle**, so it doesn't touch the sides. (*This is because heavy liquids like honey will stick to the sides and interfere with your other layers.*)Pour the next-heaviest liquid on top (*that's the corn syrup*). Go very slowly and pour right in the middle. Make sure you **wait a few minutes between pours**. This will allow the layers to settle and separate. Repeat until you hit the water layer.The water tends to mix with the layers below it. To prevent this, use a **food baster or eyedropper**. Press the baster up against the container and let the water run down the side and gently settle on the layer below.

Use the baster technique to add the last two layers.

Mix food coloring into the corn syrup, milk, water or rubbing alcohol to jazz up your Dense-O-Meter.

LOOK CLOSER

Your Dense-O-Meter isn't just cool to look at — it's also a handy tool for measuring the density of other objects. To give it a try, find a few small objects of different materials. Gently place each item on the surface and watch to see where they settle.

baby carrot

pasta

ice cube

crayon

plastic bottle cap

popsicle stick

paperclip

rubber ball

Compare the objects you dropped in. Which is most dense? Which is least dense? Which ones would float in water?

For a bigger experiment, measure out an equal volume of every liquid you used. Weigh each one and write down the weight. Then find a liquid that you haven't tried to add to your layers. Weigh it and predict where you think it will sit. Then give it a try and see if you're right!

TA DA
DONE!You made a
Dense-O-Meter!