YOU WILL NEED

- * Rubber gloves
- **X** Large Pyrex[®] beaker
- **X** Vegetable oil
- **∓** Small Pyrex[®] tube
- **W**ater



Put on some rubber gloves and fill the large beaker about three-quarters full with oil.

The tube is easy to see in the oil... Take the small Pyrex® tube and carefully insert

it into the oil.



Try the experiment again, but this time fill the beaker halfway with water before adding the oil. The tube is now visible... but only in the water! Read The Science Bit to find out why.



bottom, giving you a

peek at the tube inside.

THE SCIENCE

BiT...

When you turn on a light, it shines on everything, bouncing off objects and into your eyes. Glass, though, is transparent, meaning that light passes through it instead of bouncing off it.

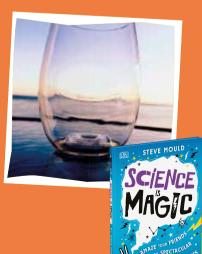
Now push the small tube down to

allow oil to flow into it. Watch the

tube disappear as the oil rises up!

If light doesn't bounce off glass into your eyes, how can you see it? It's because light bends a bit when it passes from air to glass. If you look at a glass, the light coming through from behind it bends and everything looks wobbly (see image, right). When light passes from oil to glass, it hardly bends - dipping the glass in oil, the wobbles go away and the glass disappears! Light bends a bit between water and glass, which is why you can see the glass in water.

...and now it's gone!



DISAPPEARING
You've probably seen magicians make objects like coins or plant cards disc.

make objects like coins or playing cards disappear. Here's a disappearing act you can do yourself using the science of bending light.

Content from Science is Magic by DK