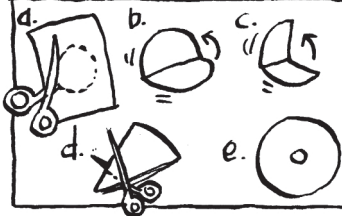




HOW COLOURFUL IS BLACK?

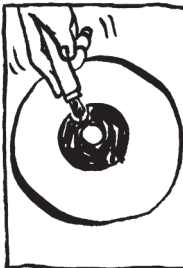
EASY
▶ MEDIUM ◀
HARD

YOU'LL NEED: white coffee filter or blotting paper, scissors, 1 glass,
1 black felt pen, water, vinegar



TRY THIS!

1. Take a piece of filter paper, cut a circle out of it and cut a little hole in the middle. You can do that by folding the circle twice in the middle and cutting the tip.



2. Colour the filter paper round the hole with the black felt pen.



3. Roll a second piece of filter paper and stick it through the hole of the other piece. It now looks like a little "umbrella".



4. Put a little water into the glass and add a little vinegar.



5. Stand the "filter paper umbrella" with its "handle" into the glass and wait a little.

WHAT HAPPENS?

The black colour on the paper seems to have turned colourful all of a sudden. The vinegar water rises in the paper and takes the colour with it. The black colour is broken down into other colours.

WHY IS THAT?

Black is a mixture of other colours. The vinegar water can detach these colours more or less easily from the paper. The easier the colour detaches, the farther it is taken along by the water. The easily detached colours are outside, next to the rim, and the ones that detach less easily in the middle.

WHAT DO I NEED THIS FOR?

Similar methods are often used in chemistry to separate materials from each other. In the technical language of chemistry, the method is called "chromatography" (which translates as "writing colours").

BY THE WAY:

Try this with other colours as well!

