



Water science

Background knowledge

Tap water contains substances (solutes) already dissolved in it. The amount and type of dissolved substances depend on where you live. This is one of the reasons that tap water tastes different in different areas. You can find out how much solute is dissolved in water by pouring a small amount into a glass and allowing it to evaporate. The white ring or scale left behind in the glass contains minerals that were dissolved in the water. Water that contains a lot of dissolved substances is called *hard water*, while water that contains very few dissolved substances is called *soft water*.



Science activity

Tiah had a fish tank. As the water evaporated, she would add more water. She noticed a line of white scale on the inside of the fish tank where the water had evaporated. Explain Tiah's observation.

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Science investigation

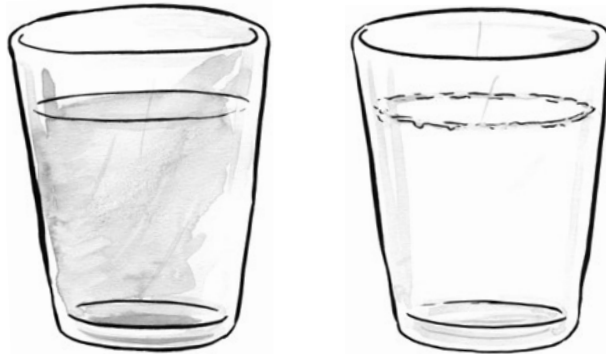
Obtain a black, water-soluble marker. Cut a white paper coffee filter into a circle just a bit larger than the opening of a glass. Draw a circle 2 cm wide in the middle of the filter. Now place the filter on top of a glass. With an eyedropper, place one small drop of water in the center of the marker circle, making sure not to get any water on the marker. Observe what happens as the water moves across the paper. Explain your observations.



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Science activity

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Tap water has minerals in it. When the water evaporates, the minerals are left behind. These minerals create the white scale on the fish tank.

Science investigation

Try different water-soluble markers. Ink in these markers is a color mixture; black ink is composed of a number of dyes such as red, blue, yellow, and green. The paper separates the ink mixture because the ink solutes are absorbed at different rates.