

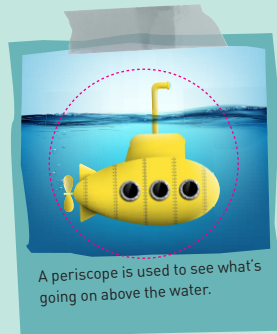
DAY 4

Peak around corners

Today you will build a device that allows you to look around corners. It's called a periscope.

You will need

– Mirror, today's box



A periscope is used to see what's going on above the water.



Scan this QR code with a smartphone or tablet with Internet connection to access these directions digitally.

CHECK IT OUT!

Even when periscopes are more complicated than the one you built, the principle is the same. All periscopes allow you to view an image from a position out of the direct line of sight. Periscopes are most frequently employed in submarines, because submarines have to withstand very high water pressure, and therefore usually have no windows. If the submariners want to see out, especially if the vessel is just under the surface of the water, they must use the periscope.

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Here's how

1. First, carefully read through the directions and the accompanying text. The closed box will become the housing for your periscope.
2. Punch the two perforated circles out of today's box and fold the box back together. Remove the protective film from the mirror. Place it in the box as shown, and close the box.
3. Now you can use your periscope to see around corners!



WHAT'S HAPPENING?

The principle of a periscope is actually quite simple. Light enters through the opening and hits the mirror. Because of its position in the box at a 45° angle, the incoming light rays are redirected 90°, and straight into your eyes. Therefore you can see the image from a different position. This makes it possible to have a line of sight from a protected position — ideal for observing without being observed.

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