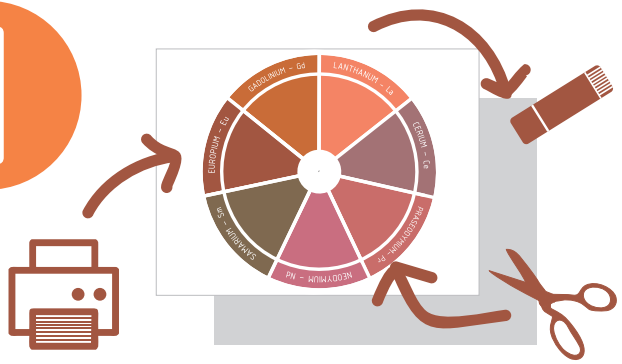
How to make your rare earth elements wheel

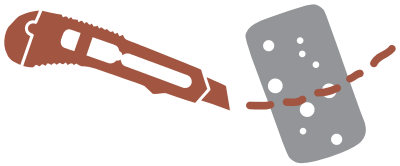
What you need
1 sheet of cardboard - A4
1 cork stopper
1 plastic knife
1 nail
Printer
Scissors
Cutter
Hammer
Glue

1



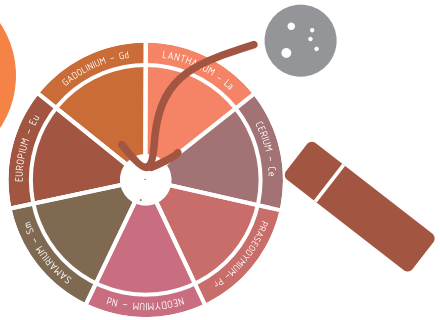
Print the wheel, glue it onto a piece of cardboard and cut it along the circular edge

2



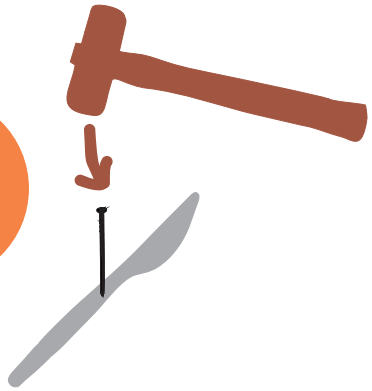
Cut in half the cork stopper with the cutter

3



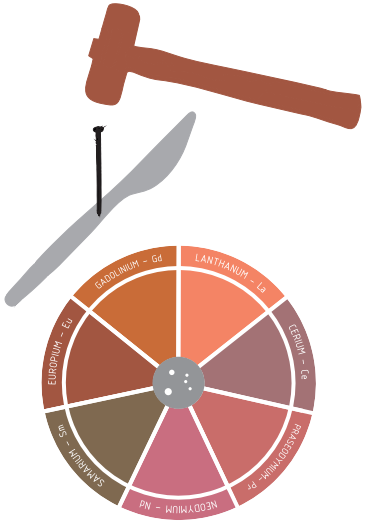
Fix one of the cap halves in the center of the wheel with glue

4



With the nail and the hamme, pierce the plastic knife

5



Fix the nail and the knife in the center of the upper face of the cork

The wheel is ready!

LANTHANUM - La

La is the 28th most abundant element in the Earth's crust. It is a silvery-white soft metal, ductile and malleable, that can be cut with a knife. It oxidizes rapidly when exposed to air.

CERIUM - Ce

Ce is the most abundant of the lanthanides. It is a silvery-grey soft, malleable and ductile metal. It oxidizes in moist air. In pure form it is very reactive and can ignite if heated or scratched with a blade.

PRASEODYMIUM- Pr

Pr is a silvery-yellow soft, malleable, ductile metal. It is highly reactive to the corrosion in air than the other rare earth elements but it reacts rapidly with water.

NEODYMIUM - Nd

Nd is one of the most abundant rare earth element, together with La and Ce. It is a silvery-yellow soft metal. It reacts slowly with cold water and rapidly with hot water.

SAMARIUM - Sm

Sm is the 40th most abundant element in the Earth's Crust. It is a silvery-white metal, fairly stable at room temperature in dry air, but it ignites if heated above 150°C.

EUROPIUM - Eu

Eu is amongst the least abundant of the rare earths and it is also the most reactive. It is both rare and expensive. It is about as hard as Pb and quite ductile. It rapidly oxidizes in air and reacts with water.

GADOLINIUM - Gd

It is a silvery-white, malleable and ductile metal. Unlike other rare earths, Gd is relatively stable in dry air. It is weakly magnetic at room temperature, but becomes strongly magnetic below its Curie temperature (19,3°C).

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