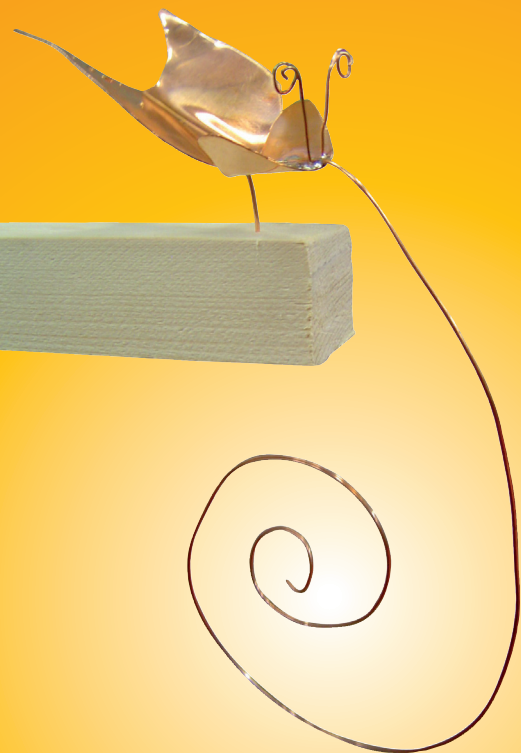


The swaying butterfly



What do you need?

Materials

- Copper sheet, 0.5 mm thick
- Solder: soft solder
- Copper wire \varnothing 1.5 mm
- Copper wire \varnothing 0.5 mm

Tools:

- Soldering iron
- Wet sponge
- Electric wood burning tool
- Bench-vice
- Metal file
- Metal shears
- Scriber
- Punch
- Bunsen burner
- Hammer
- Wire stripper
- Wire-cutters
- Heat-resistant plate

What do you have to do?

1. Draw a butterfly on the copper sheet by means of a scribe.
2. Use the metal shears to cut the butterfly from the copper sheet.
3. Make a hole in the middle of the butterfly by means of a punch and a hammer.
4. Sand the sheet quite clean so that you can solder later on.
5. Use the wire-cutters to cut 50 cm of the copper wire \varnothing 1.5 mm
6. Strip the wire by means of the wire stripper.
7. At one tip of the wire indicate 1.5 cm and bend this tip at a right angle. This will be the foot of the butterfly.
8. Push the right angle through the hole in the butterfly so that the foot sticks out below.
9. Bend the other tip round so that the butterfly has a round tongue or tail.
10. Use the solder iron to melt some droplets of soft solder at the spots where you will be soldering the body to the foot.
11. Lock your butterfly together with its foot. Use the Bunsen burner to heat up so that the soft solder droplets melt further.
12. Attention! Let everything cool down! The copper is very hot at this moment. Only after a few minutes, you can grasp it again.
13. Check if the butterfly remains standing on your finger. If not, you will have to bend the wire until the butterfly stands firmly.
14. Strip a piece of 0.5 mm thick copper wire. Make two antennae of the thin copper wire and fix them by soldering. It is up to you if you do this at the bottom or the top.