

INVESTIGATION 1

Bimetal strip demonstration instructions



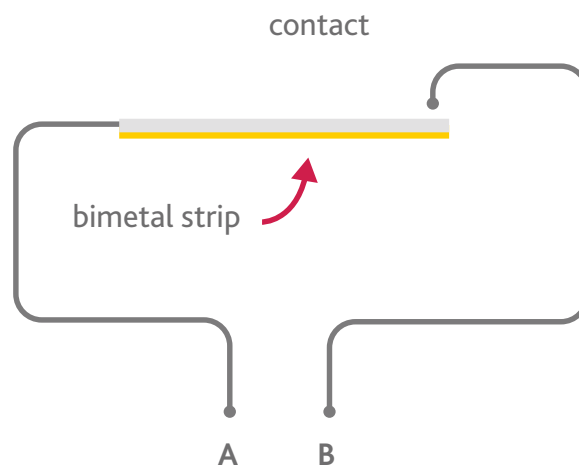
WARNING - THE BIMETAL STRIP WILL BE VERY HOT. NEVER TOUCH THE METAL PARTS.

- Holding the bimetal strip by the wooden handle, examine the metal strips by looking along their length.
- Identify the brass strip (yellow metal) and the iron strip (grey or black metal).
- Adjust the Bunsen flame from a yellow safety flame to a blue flame.
- Holding the insulated handle put the metal strips into the Bunsen flame and heat them all the way along their length.
- Examine the metal strips by looking along their length and record your observations on your worksheet.

Q. When hot, did the strip bend towards the brass or towards the iron?

Q. Which of the two metals expands most when heated, brass or iron?

- The diagram below shows an electrical circuit with an iron/brass bimetal strip included as part of the circuit.



Q. How might this circuit be used by a computer control system that needs to sense a change in temperature?

Research question

Q. How are bimetal strips used, find as many examples as you can?