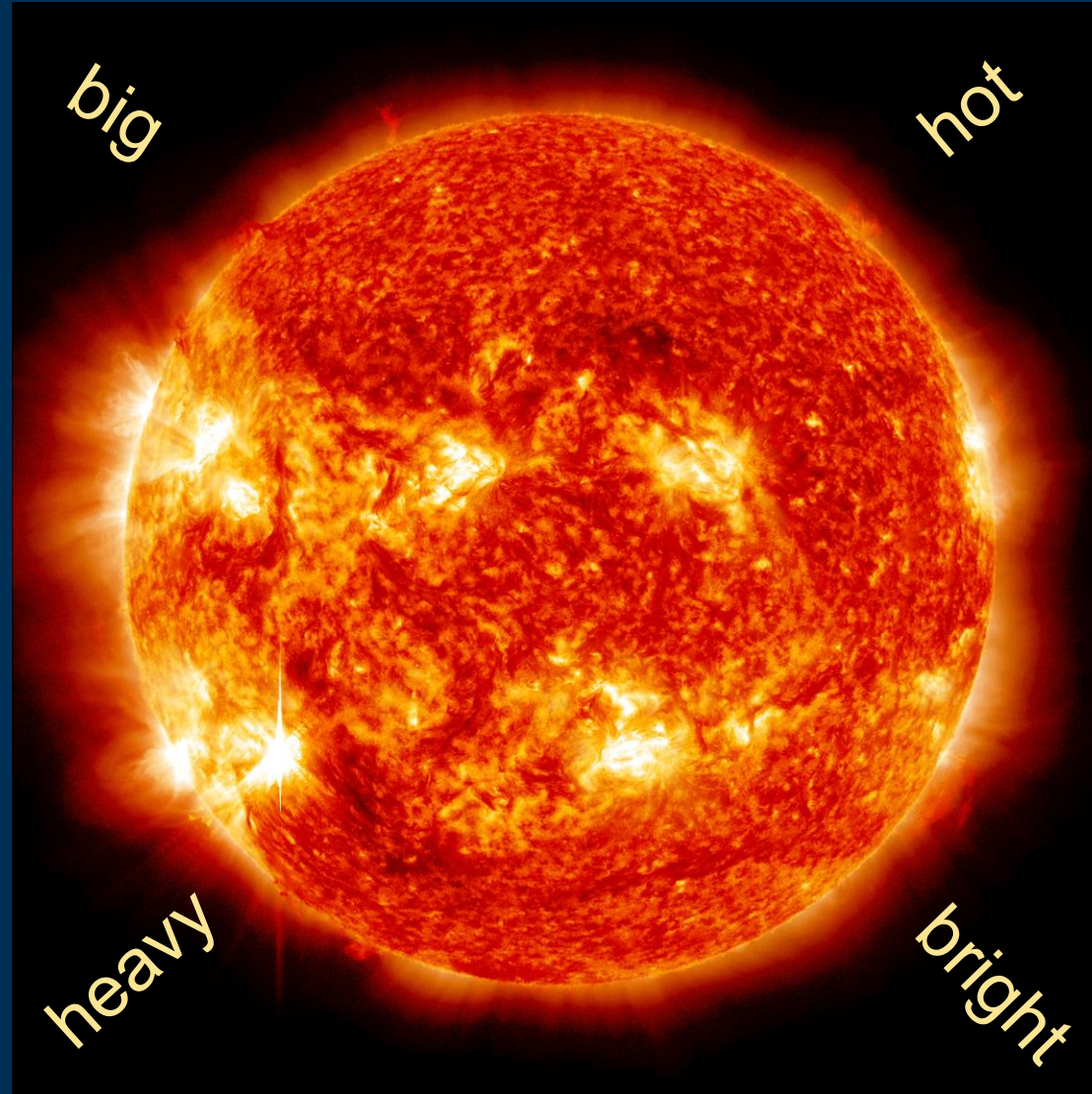


**Teachers' Pack**

# **Magnificent Magnets & Cool Currents**

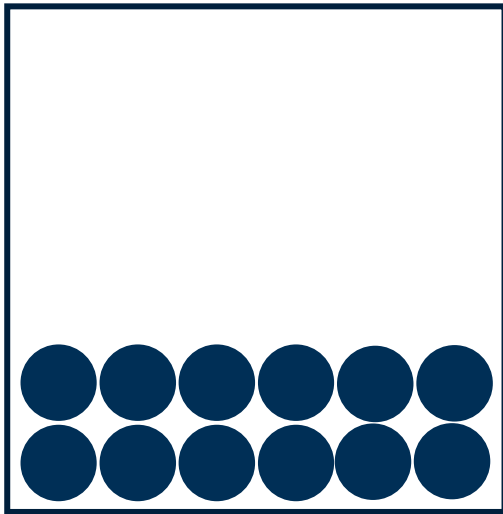


# The Sun

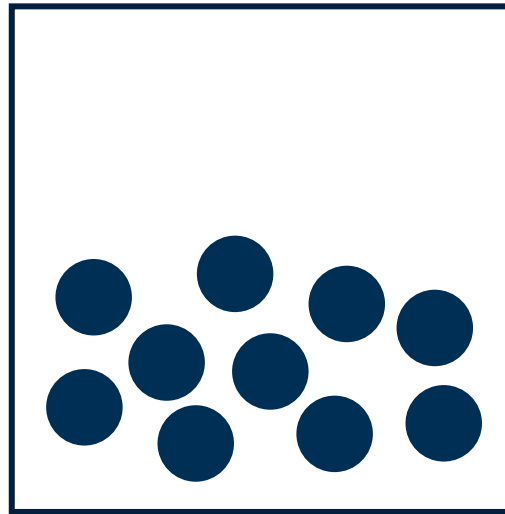


... far away

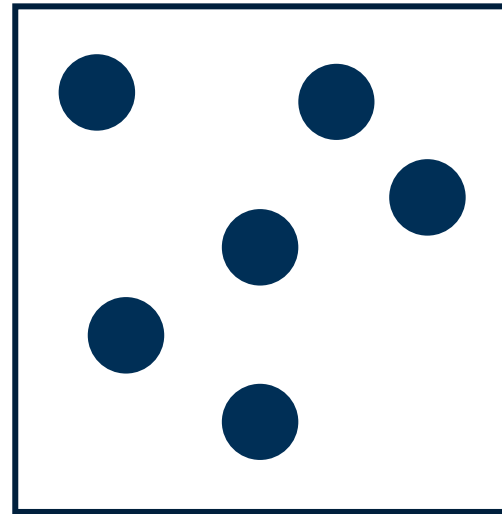
# States of matter



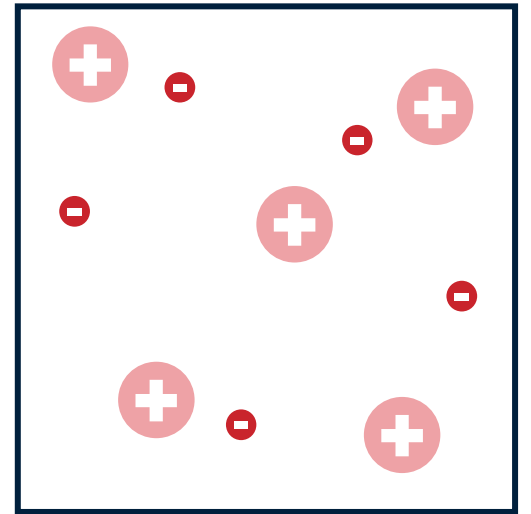
solid



liquid

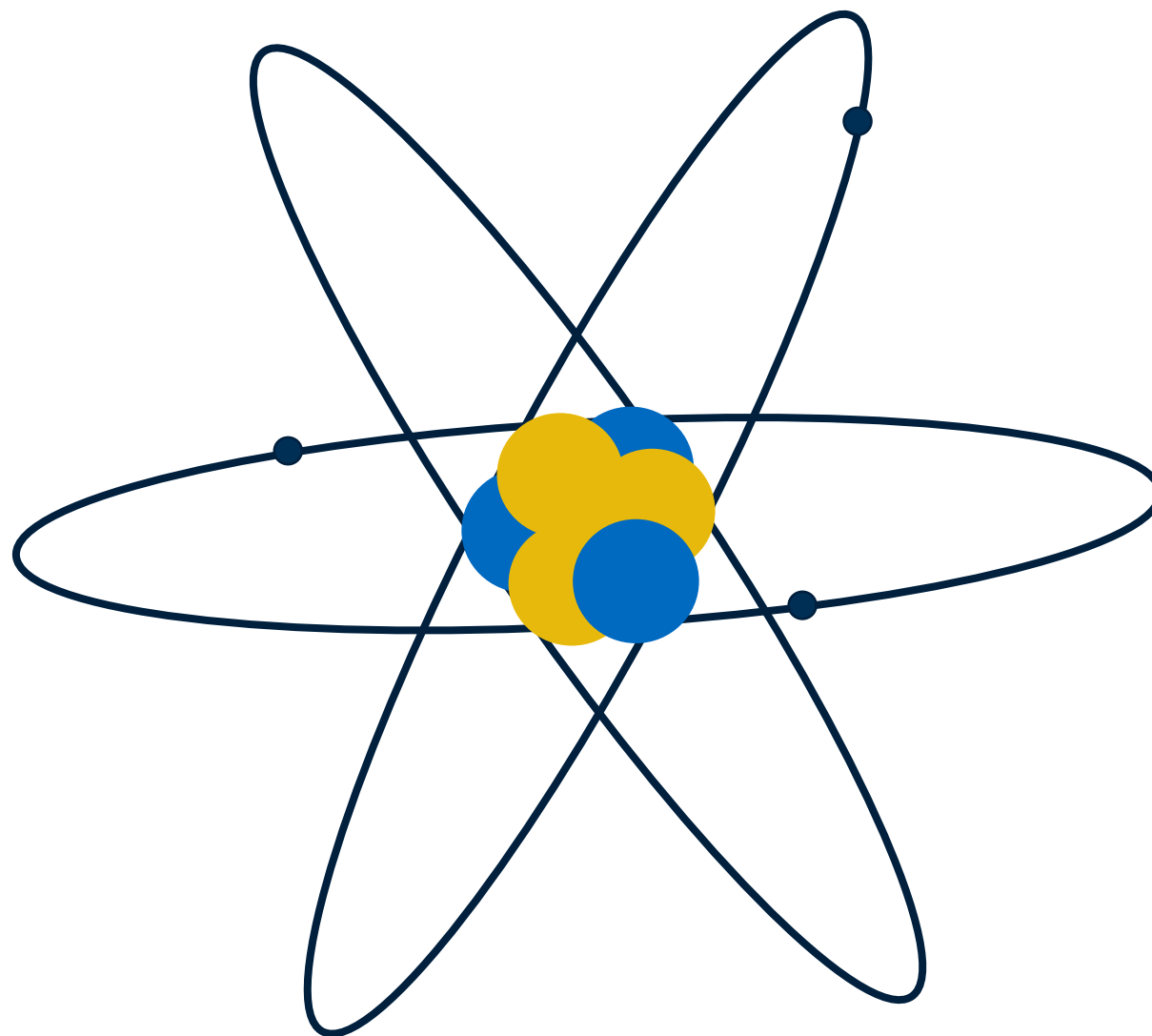


gas



plasma

# An atom

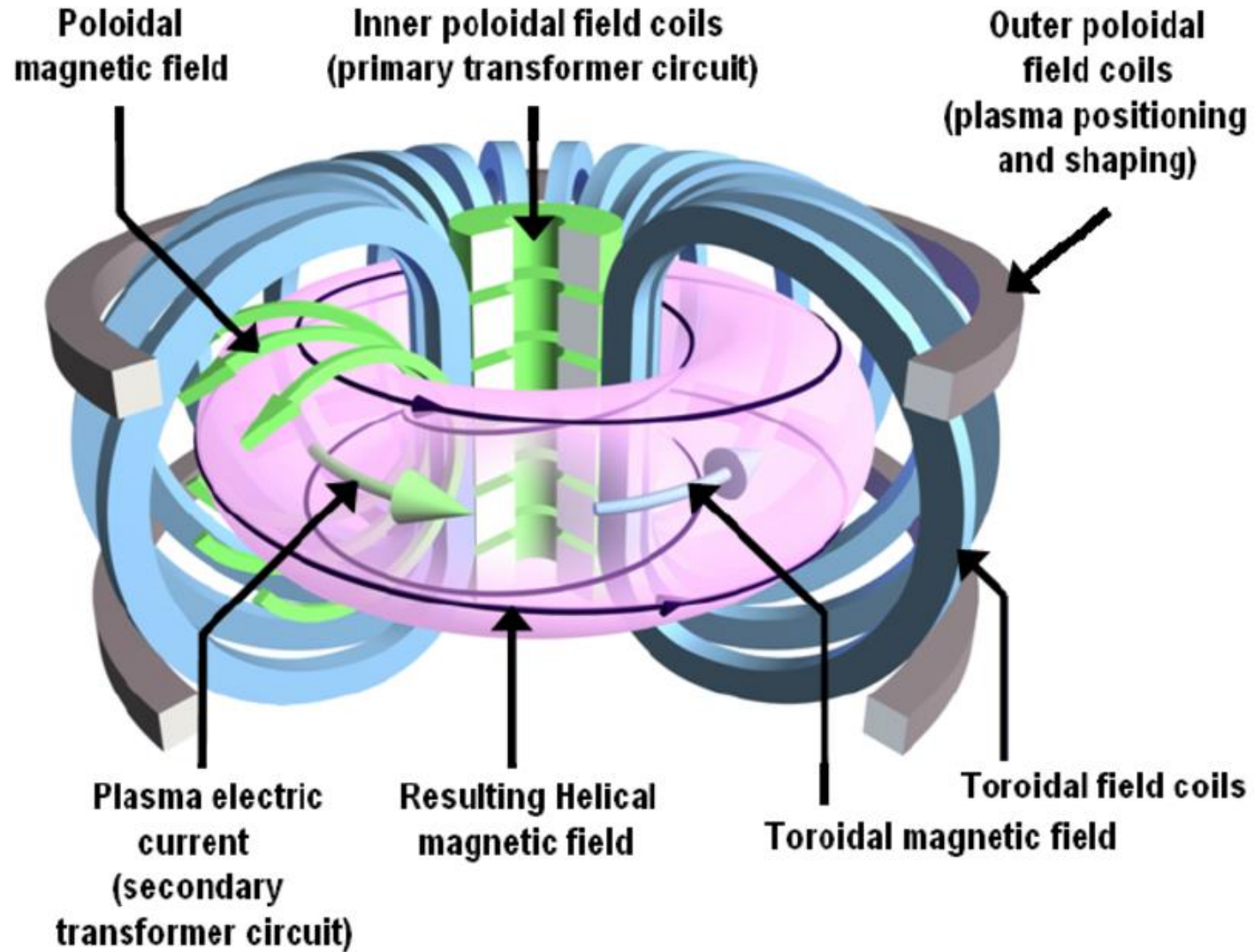


**electrons**



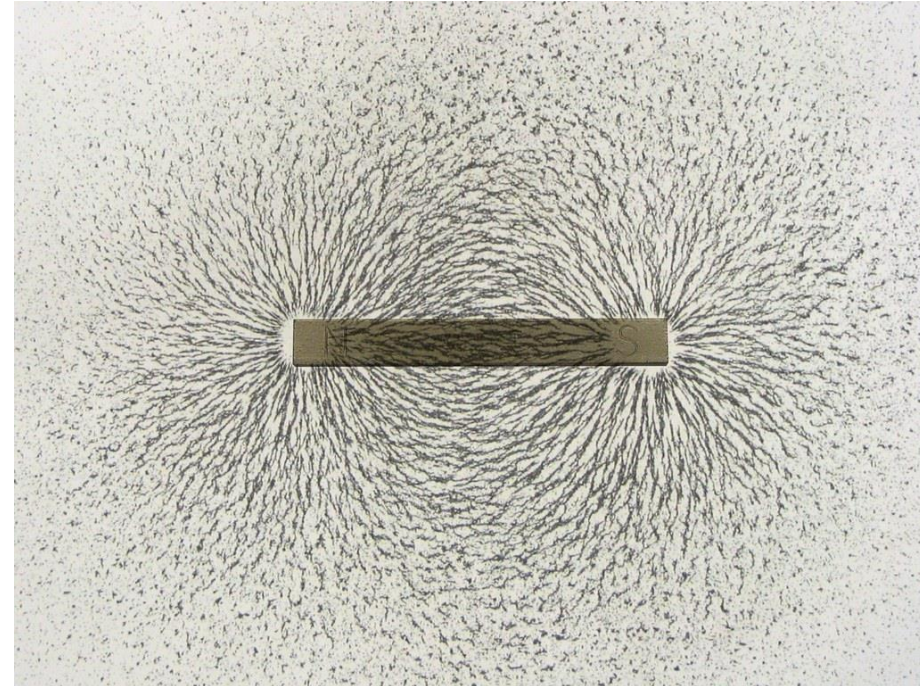
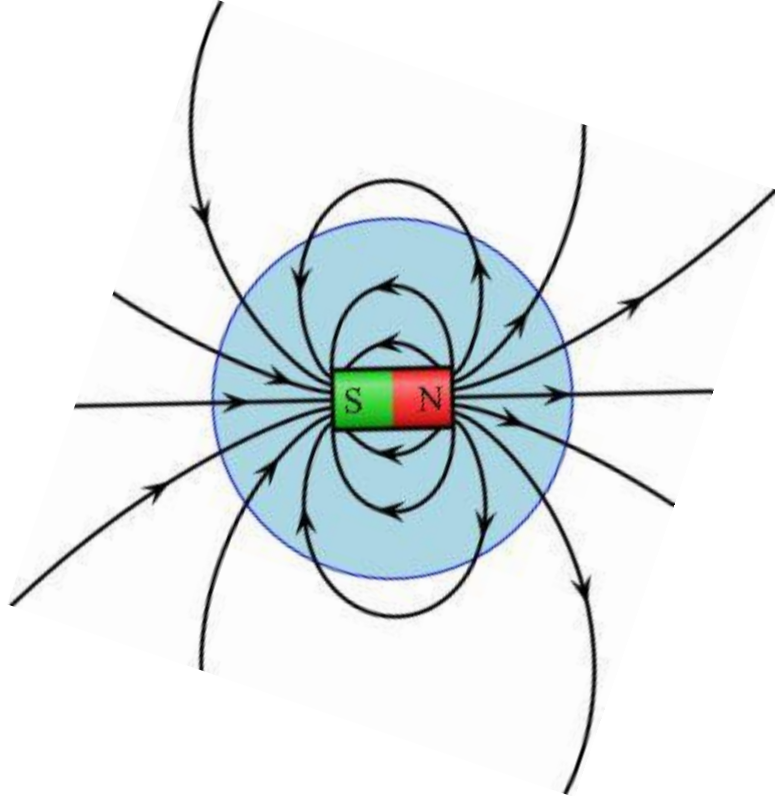
**nucleus**

# Tokamak





# Magnetic field lines



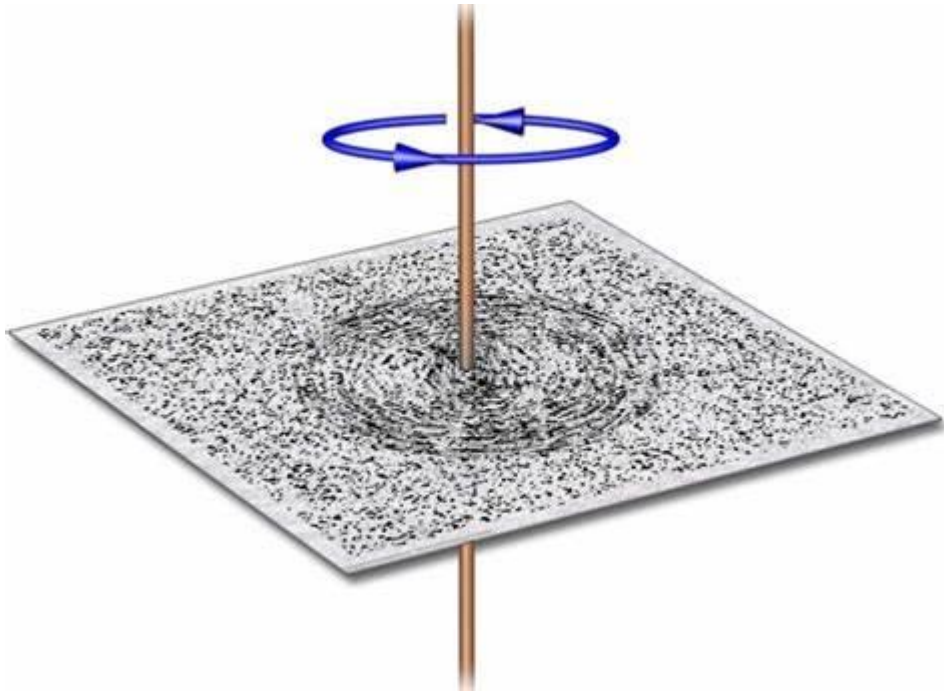
A diagram illustrating the generation of a magnetic field. It features a central white circle containing the text "movement of charged particles generates a magnetic field". Surrounding this circle are several concentric, curved black lines with arrows, representing magnetic field lines. The arrows on these lines indicate a clockwise direction of flow when viewed from above. The lines are more densely packed in the upper half and more spread out in the lower half, suggesting a stronger field in the upper region.

**movement of charged particles  
generates a magnetic field**



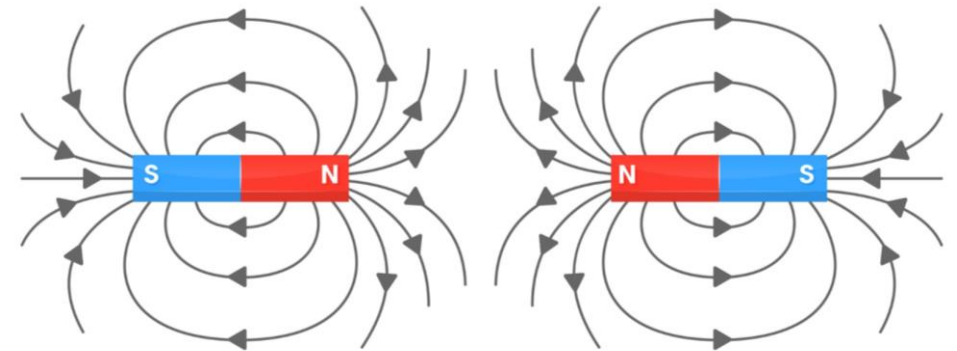
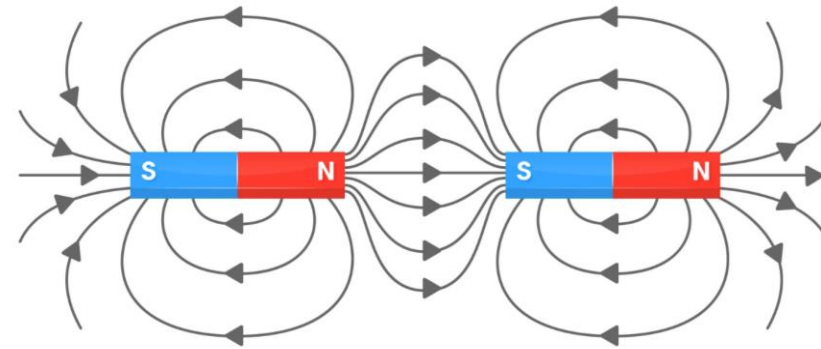
# More magnetic field lines

## Magnetic fields interacting



charged particles moving through a wire  
(as current) creates a magnetic field

opposite poles attract



like poles repel