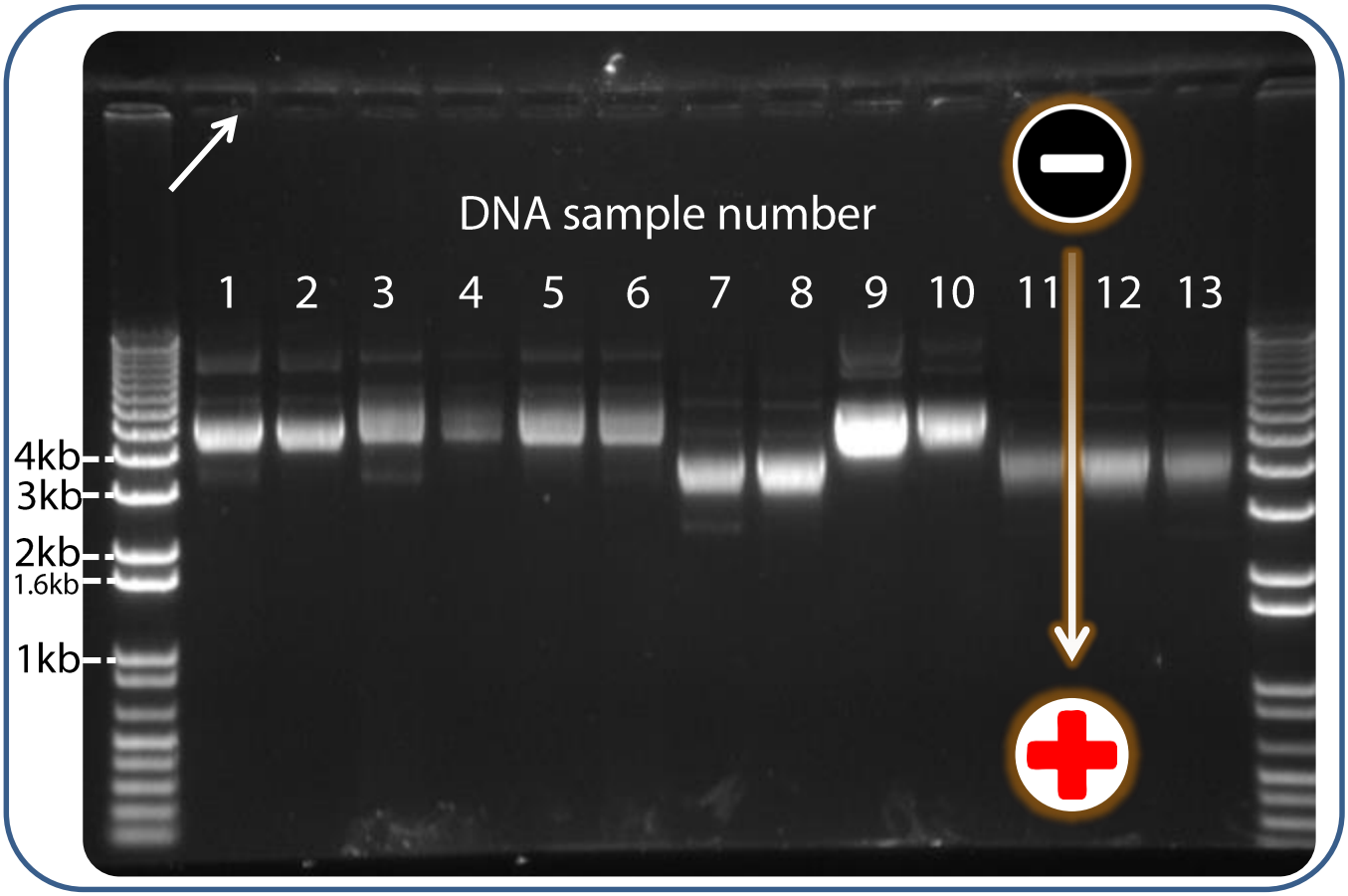
# Gel separation of DNA by size




This is a photograph of the gel used to separate the DNA by size, the wells are faintly visible at the top (arrow).

The negative electrode was at the top and the positive electrode at the bottom. DNA has a negative charge so when a voltage is applied it is attracted to the bottom (positive end).
The gel acts like a sieve: large pieces of DNA get tangled up and move slower than small pieces.

A dye was added to the gel, when it binds to DNA it fluoresces and enables us to see the DNA.

On each side is a DNA 'ladder' made of pieces of DNA of known size. Each rung above 4kb is 1kb larger and each one below 1kb is 0.1kb smaller. 1kb = 1kilobases, that is 1000 bases of DNA.
Each base is a single letter of the DNA code.

Reading across from the ladder, you can estimate the size of the DNA. The brighter the band, the more DNA there is.