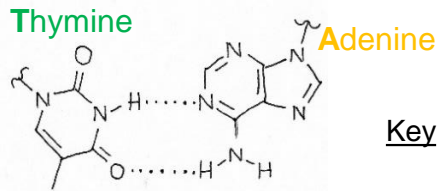
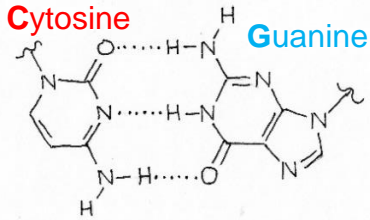
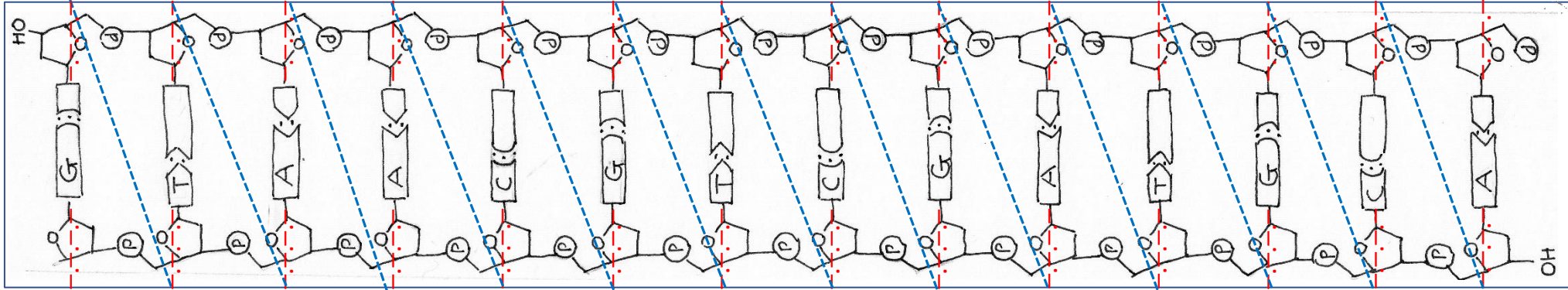
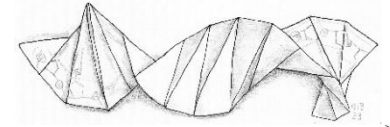


Origami DNA

Complete the pairs of bases below, cut out the strip and fold your own DNA helix

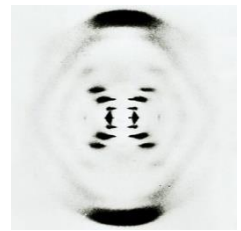


mountain valley

Key to fold



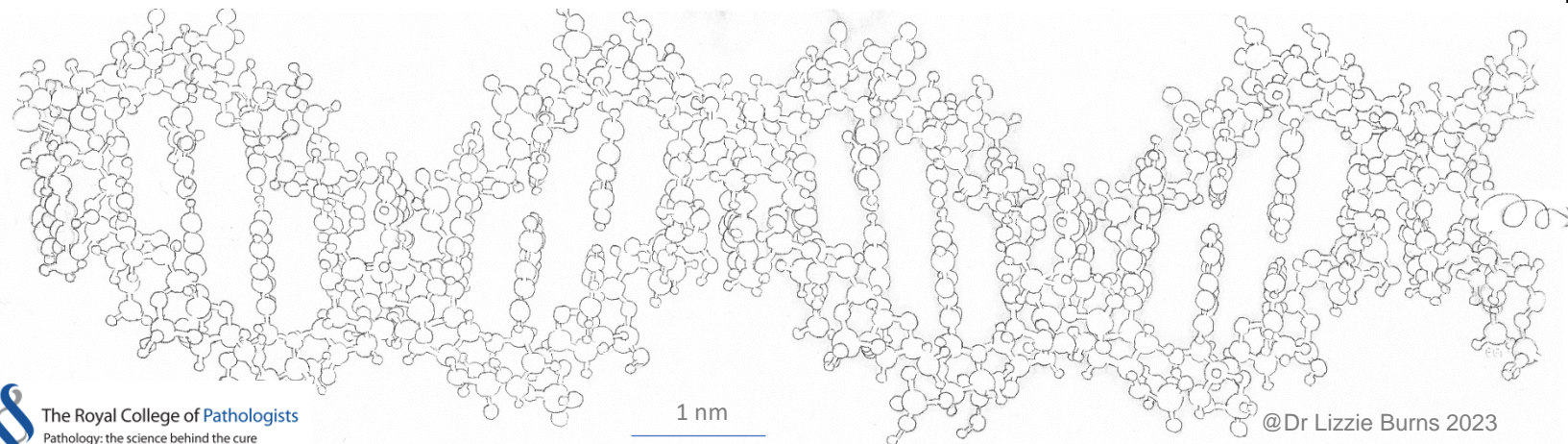
Cut out the rectangle above and fold as 'mountains' along the ladder rungs and diagonally as 'valleys' to make a helix shape. [See video.](#)



The **DNA code** is made of 4 bases called **C, G, A** and **T**, and you can see how only **C-G** and **A-T** pair (hydrogen bonding).

What can go wrong? – making a mistake in matching A-T and C-G would produce a new mutation which can be involved in a cell (somatic) becoming cancerous. However, mutations also allow evolution and where inherited (zygote) mutations can produce change. This could be advantageous and more likely for the individual to survive and pass on their genes, or when disadvantageous could result in a genetic disease.

While the double-helix is too small to see, Rosalind Franklin's work in the 1950s used x-ray shone through a crystal of DNA indicated a regular structure.



1 nm

@Dr Lizzie Burns 2023



Your DNA is packaged in 23 chromosomes in each cell, and if stretched out it would be about 2m long. DNA for all the cells in your body would measure 150,000 trips to the moon and back!