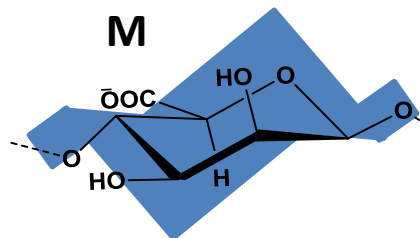
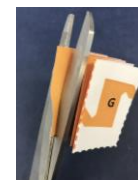


These are the monomers β -D-mannuronate (**M**) and α -L-guluronate (**G**), that are linked by ether bonds in the alginate polymer. To see the difference in the structure of the polymer from 'GGGGGGG' linkages versus 'MMMMM' linkages:

- 1) cut along the black dashed lines to give three strips of paper
- 2) Fold along the red dashed line, and keep folding in a concertina
- 3) Cut the end of the strip so that it folds up to the end of the paper
- 4) Cut around the coloured shape along the green lines ONLY.
- 5) Open out the chain to see the polymer structure



The 'GGGGGG' chains can form 'egg-boxes' when they are linked together with calcium – see if you can see this structure with 2 'GGGGG' chains. You can use 5p coins to represent the calcium ions.

