PROJECT LIST

You and your group should look into and then eventually choose one of these topics. Initially choose a shortlist of 3 in case another group has chosen the same topic. Then you will have to discuss, and agree on, which group pursues which topic.

1. Coding theory and linear algebra.
2. Permutations: derangements, descents and pattern avoidance.
3. The ubiquity of Catalan numbers.
5. Symmetries, rotations and reflections.
6. Partition identities.
7. Generating functions.
8. Partially ordered sets.
10. Motzkin paths and more general walking paths.
11. Graph colouring.
12. Pascal’s triangle and binomial coefficients.