

End Points

Year 5 – Automata toys



What I know and can explain

- To understand that the mechanism in an automata uses a system of cams, axles and followers.
- To understand that different shaped cams produce different outputs.
- Experimenting with a range of cams, creating a design for an automata toy based on a choice of cam to create a desired movement.
- Understanding how linkages change the direction of a force.
- Making things move at the same time.
- Understanding and drawing cross-sectional diagrams to show the inner-workings of my design
- Measuring and marking the accuracy of the jelutong and dowel pieces required.
- Measuring, marking and cutting components accurately using a ruler and scissors.
- Assembling components accurately to make a stable frame.
- Understanding that for the frame to function effectively the components must be cut accurately and the joints of the frame secured at right angles.
- Selecting appropriate materials based on the materials being joined and the speed at which the glue needs to dry/set.
- Evaluating the work of others and receiving feedback on own work.
- Applying points of improvement to their toys.
- Describing changes they would make/do if they were to do the project again.

Useful vocabulary

accurate
assembly diagram
automata
axle
bench hook
cam
clamp
component
cutting list

dowel
drill bits
exploded diagram
finish
follower
jelutong
linkage
set square
tenon saw

