

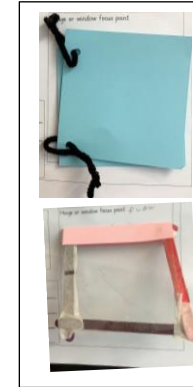
Newlathes Nursery and Infant School Medium Term Planning

Year Group: 1

Term: Aut1

Subject: DT

Learning/ Skill: mechanisms hinges



Resources

Variety of papers, lolly sticks, hole punch masking tape, pipecleaners, laminated sheets, cellophane glue coloured paper. STEM Can it fly? to introduce topic. Paper planes from STEM book Polysterene gliders

National Curriculum Links/Learning:

DESIGNING

Work confidently within a range of contexts- imaginary.

State what products they are making and who it is for.

Use simple design criteria.

-Communicate ideas through drawings.

-model ideas by exploring materials and making templates/mock ups.

MAKING

Select from a range of tools and equipment.

Use a range of materials

Assemble join and combine materials with some accuracy.

Use finishing techniques.

EVALUATING

Make simple judgements against their design criteria.

Say what they like/dislike about the polysterene planes.

TECHNICAL KNOWLEDGE

Select materials for function by property e.g transparent, waterproof, bendable

Prior Learning:

Cutting, joining and folding skills.

Link to photo frame work in Reception.

Folding work in EYFS.

Activities/Teaching

Use Can it fly? As intro to topic.

Read Pigs might Fly as a hook.

USER identify that the pigs need a good paper plane that can fly across the finish line and they need to be able to see out of the window and get in and out through a door.

Look at and play with polysterene gliders. What is and isn't good about these?

Set design criteria for plane.

Explore different designs of planes and gliders and test which goes furthest/across the finish line. Which are still intact? Which fly in a straight line? Which are easy to use? Which are light?

Test different types of paper and card for the best design of plane. Which goes over the finish line? Best of three.

Demonstrate to children how to make a variety of hinges; hole punch and pipecleaner, masking tape, fabric, l bar. Children have opportunities to experiment.

Children to make door or window using criteria it must open and close, you must be able to see through it and it should not let water in (window). Select own materials and make independently.

Design surface decoration for paper plane. Look at logos, aeroplane like animals in the book etc. Record on planning sheet.

Oral evaluation of product.

Planning area ideas

Make a parachute from different materials

Make a helicopter spinner

Make a kite

Make a peg plane

Explore hinges

Subject Specific Vocabulary

Hinge-a flexible joint which allows movement.

transparent – lets light through and you can see through it clearly.

Fold- to bend over itself.

Crease- a line created by pressing down.

plan- to decide how to do something before you do it.

Evaluate- assess a product to identify if it is successful

Design-

Window frame

equipment

Aeroplane – a machine that can fly fixed

Glider – aircraft that flies without the use of a motor

moveable – being able to move

Helicopter - a flying machine with rotors.

Wings

Different types of paper

decorate

Any subject specific requirements?

UserThe Pigs from Pigs might fly (imaginary)

Purpose of product

To see through and get in /out of

To fly across finish line so pigs win the race.

Future learning:

mechanisms in Y1 levers and sliders y2 pop up books