

Newquay Primary Academy – Summer Term 2 Sequence – Design & Technology



RECEPTION

Structures - Building my pet a home

Prior knowledge... Children have explored different materials, to develop ideas about how to use them.

YEAR 1

Structures: Constructing a lighthouse

Prior knowledge... Children have constructed various models and adapted their designs when needed.

YEAR 2

Structures - Baby Bear's chair

Prior knowledge... Children have explored various structures.

INTENT

Design and construct a home for my pet to live in, using a range of tools and techniques. Explore various ships and build my own to sail the role play ocean.

Design and construct a light house for a client (mouse) to live in. Explore various types of light house, how they work and their key features

Explore stability and methods to strengthen structures, to understand Baby Bear's chair weaknesses and develop an improved solution for him to use.

VOCABULARY / STICKY KNOWLEDGE

Design, join, construct, plan, improve, combine, stick, cut, attach, consider, purpose, ship, sail, float, sink.

Axle, bridge, design, design criteria, model, net, packaging, structure, template, unstable, stable, strong, weak

Design criteria, man-made, natural, properties, structure, stable, shape, model, test

SEQUENCE OF LESSONS

1. Use a variety of tools and techniques to create a home and accessories for my pet, explaining my process and make improvements.
2. Use tools and attaching techniques to build my boat, explaining my success or failure when it floats/sinks.
3. Evaluate my creations and make improvements. Feedback to friends on how they can improve their work.

1. To include individual preferences and requirements in my design.
2. To make a stable structure.
3. To assemble the components of my structure.
4. To evaluate my project and adapt my design.

1. To explore the concept and features of structures and the stability of different shapes.
2. To understand that the shape of the structure affects its strength.
3. To make a structure according to design criteria.
4. To produce a finished structure and evaluate its strength, stiffness and stability.

OUTCOME / COMPOSITE

To design, make and evaluate a home for my pet.

To design, make and evaluate a functioning light house.

To make a stable chair for baby bear to sit on (Goldilocks and the three bears).