

Session 1 – house design

EASY TASK:

I want you all to make a house like this.....

I will give you step by step instructions

DESIGN TASK:

IDE – look at shapes of houses

FPT – sawing skills, gluing skills

DMA – using two pieces of square section wood, art straws and some card, can you make a house design of your choice?

Houses through the ages



Bronze/Iron Age
(2200 BC-AD 43)



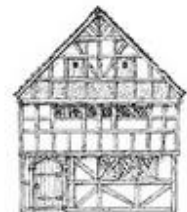
Roman
(AD 43-410)



Anglo Saxon-Viking
(AD 410-1066)



Medieval
(1066-1500)



Tudor
(16th Century)



Stuart
(17th Century)



Georgian
(18th Century)



Victorian
(19th Century)



Modern
(20th Century)



Future

Session 2 – traditional tales (EYFS)

Billy Goats Gruff

IDE – story telling, experiment with bridges

FPT – cutting, gluing

DMA – build a bridge that will let the three goats travel safely over the troll

Three Little Pigs

IDE – story telling, block building

FPT – cutting, gluing, sawing

DMA – design a secure house for the three little pigs that will keep them safe from the wolf

Independent extension activity in groups - can you build these using Lego? K'Nex? Large scale model you can fit in yourself?

Gingerbread Man

IDE – story telling, lollypop puppets

FPT – cutting, gluing,

DMA – design and make a sliding story map of the gingerbread man.

Independent extension activity in groups – tell the story in a shadow puppet theatre using puppets made from a variety of junk modelling material.

Session 2 – Castles and Great Fire of London

Castles

IDE – castle designs, pulley experience

FPT – sawing, gluing

DMA – a nearby Lord needs a new entrance to his castle. Design and make a grand model entrance.

EXT – build a working drawbridge.

Great Fire of London

IDE – fire engine design, axels

FPT – sawing, gluing, making a frame

DMA – Sir Christopher Wren has asked you to help design a new fire truck that can pulled by horses and carry as much water as possible. Build a moving model.

EXT – find a way to raise and lower a ramp

Local History

IDE – visit a local windmill (Fulbourn, Bourn, Burwell)

FPT – making cogs using template

DMA – Windy Miller is looking for a new windmill in the local area. Design a working model windmill.

EXT – turn the vertical windmill motion into a horizontal motion to grind some flour.

Session 2 – Romans and Vikings

Romans

IDE – chariot designs, knowledge of Romans

FPT – axles, drilling, sawing

DMA – Diocles needs a new chariot for his next race at the Circus Maximus. Design a scale model that can be pulled by two horses.

EXT – add weapons or different levels

Vikings

IDE – boat designs, testing of different boat toys, knowledge of Vikings

FPT – sawing, use of hot glue gun, waterproofing

DMA – the Vikings are looking for a new boat design. Design and make a model boat which can travel down a canal the fastest using wind power.

EXT – add an elastic band motor.

Victorians

IDE – bridge designs,

FPT – wooden structures, pulleys

DMA – Queen Victoria requires a bridge that will raise and lower over the Thames to let boats through to be built near the Tower of London. Build a working model.

EXT – add a motor to control the movement

Session 2 – Greeks, Egyptians and WWII

Greeks

IDE – catapult designs, pivot designs, elastic band designs

FPT – sawing, gluing, creating a solid frame

DMA – Dionysius of Syracuse has an idea for a new machine called a catapult. Build a working model using card and wood for him to show his carpenters.

EXT – use elastic bands to create the movement

Egyptians

IDE – shaduf knowledge

FPT – drilling, fixing materials, structures using wood

DMA – Ramses II advisors need a way of getting water from the Nile to the fields. Build a working model that will transport the water.

EXT – use pneumatics to power the movement

WWII

IDE – study Morrison and Anderson shelters

FPT – fixing materials together, cutting unusual materials and use of glue gun

DMA – the Home Office have asked you to design a new style of bomb shelter that has an emergency exit and a way of knowing when it is safe to come out. Design and make a model.

EXT – add a computing model to signal when it is all clear to a light or noise sensor