

# **Design and Technology Portfolio**

**St Martin's Catholic Primary School**

# EYFS

## Moving



### Bend



### Colour

## Our Creations



### Cut



### Fold

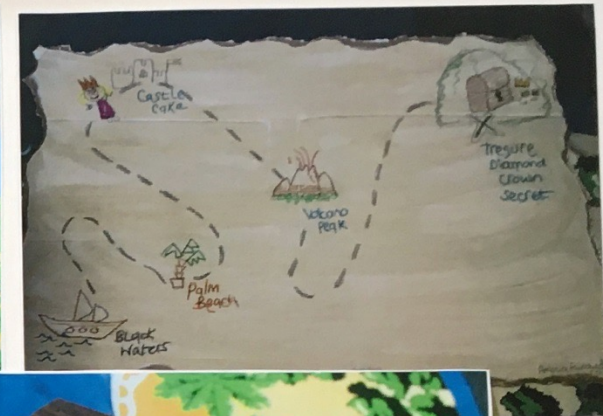


# EYFS Design and make a pirate ship at home



# EYFS

Design and make a pirate treasure chest at home



# EYFS

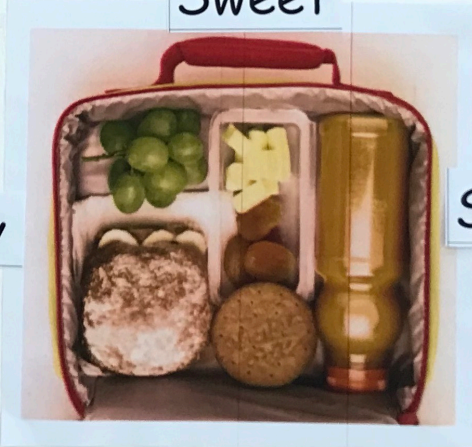
## Food Technology

## Healthy Food

### Taste



### Sweet



### Savoury

### Sour



# Year 1 Design and make a moving picture



Design



Make



Evaluate



# Year 1

## Design and make a structure

### Design

#### My House Design - idea

I am going to make a house. - plan

It will have

walls ☒ a roof ☒ windows ☒ a door ☒

My finished house looks like this.



I used these materials to make my house.

a cardboard roll, a fairy cake case, paper windows and doors, paint, glue

I like my house. ☒ I do not like my house. ☐

#### My House Design - idea

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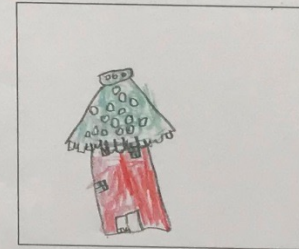
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### Evaluate

Year 1



# Year 1

## Food and nutrition Making fruit salad

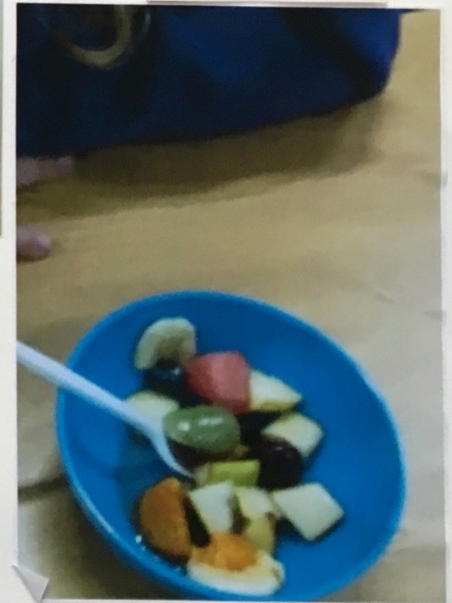
### Design



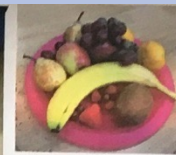
### Make



### Evaluate



We all helped to make a fruit salad. It was colourful and juicy. Some fruits were crunchy and others were soft. It smelled and tasted delicious!



PIC-COLLAGE

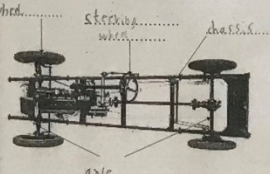
# Year 2

## Design and make a moving vehicle

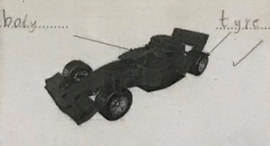
Name: \_\_\_\_\_ Date: 7/2

### Car Parts

Wheel..... Steering..... Chassis.....  
Wheel.....



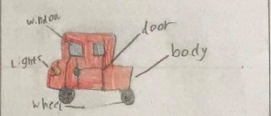
body..... tyre.....



Name: \_\_\_\_\_ Date: 7/2

### Vehicles

I know that vehicles have different purposes and are made up of different parts.  
Draw a picture of one of the vehicles on your table and label its parts.



What is your vehicle called?  
car


What vehicles have parts that light up?  
head lights

What vehicles have parts that make noise?  
horn

9/2 A super design

### My Vehicle Design

Type of vehicle: car  
Purpose of vehicle: toy  
Special Feature:  
Date of Invention: 12/11/22

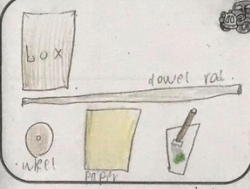


Name: \_\_\_\_\_

9/2

### Materials

Draw and label the materials you will use to create your vehicle.



For the body of my vehicle I will use a box

For the Axle I will use a dowel rod


For the wheels I will use wheel

The tools I will use are a saw and a ruler

16/7

### My finished Product

Place a picture of your vehicle here:



Describe how you made your vehicle:  
first we measured the box and then we sawed the dowel rod through the box and added the wheels if any we decorated the vehicle

16/2

### Vehicle Design Evaluation

Type of vehicle: A big making company


Are you happy with it? kind of

What do you like the most about your vehicle? the logo

Does it work? yes

How do you know? The axle was the car and the wheels

What would you change about it? I would make better by putting more color on it



## Design

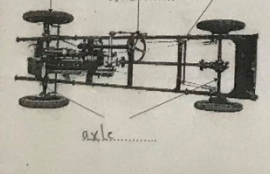
## Make

## Evaluate


Name: \_\_\_\_\_ Date: 7/2

### Car Parts

Wheel..... Steering..... Chassis.....  
Wheel.....




body..... tyre.....



Name: \_\_\_\_\_ Date: 7/2

### Vehicles

I know that vehicles have different purposes and are made up of different parts.  
Draw a picture of one of the vehicles on your table and label its parts.



What is your vehicle called?  
car

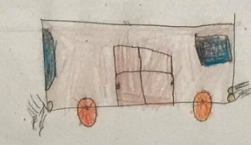
What vehicles have parts that light up?  
head lights

What vehicles have parts that make noise?  
horn

9/2 A super design

### My Vehicle Design

Type of vehicle: car  
Purpose of vehicle: toy  
Special Feature: Logo  
Date of Invention: 22/11/22

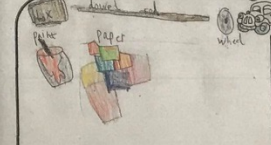


Name: \_\_\_\_\_

9/2

### Materials

Draw and label the materials you will use to create your vehicle.



For the body of my vehicle I will use a box

For the Axle I will use a dowel rod

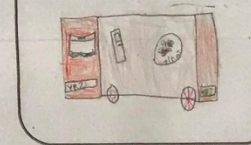
For the wheels I will use wheel

The tools I will use are a saw and a ruler

16/2

### My finished Product

Place a picture of your vehicle here:



Describe how you made your vehicle:  
First we measured the dowel rod then we sawed the dowel rod through the box and added the wheels finally we decorated the vehicle

16/2

### Vehicle Design Evaluation

Type of vehicle: bus


Are you happy with it? could be better

What do you like the most about your vehicle? the logo

Does it work? yes

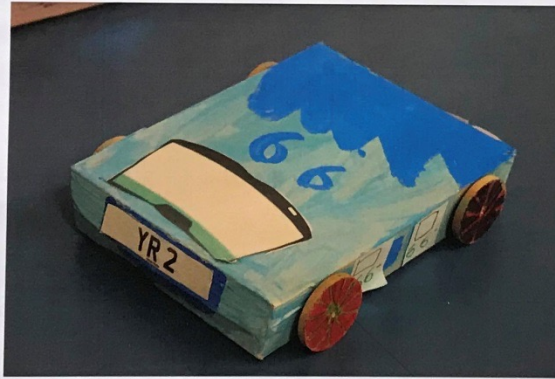
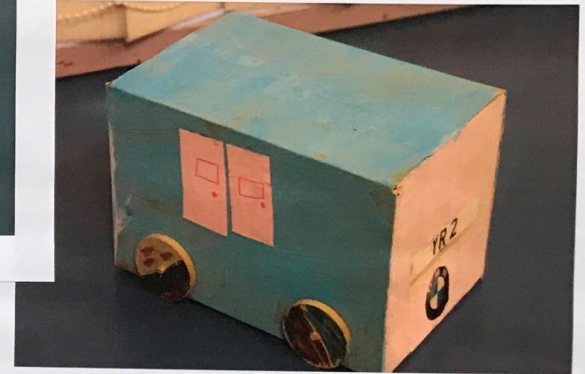
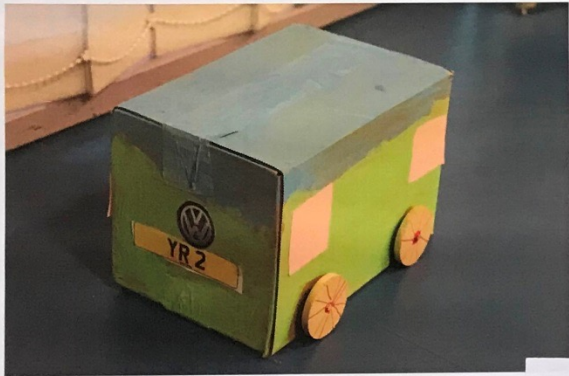
How do you know? the wheels move

What would you change about it? the yellow wheels



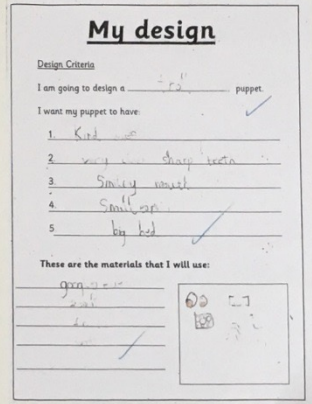
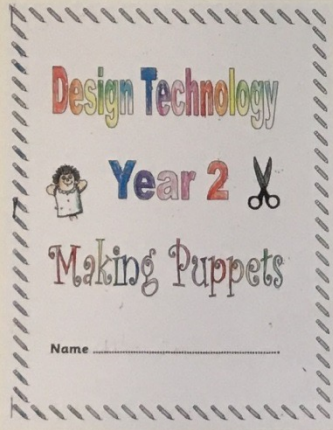
# Year 2 Design and make a vehicle

## Measure and saw

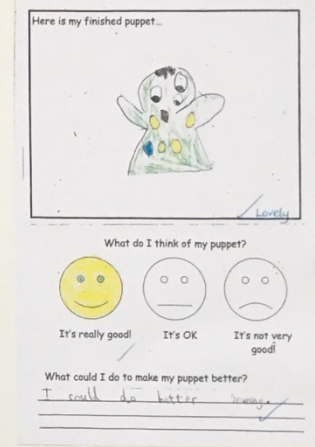


# Year 2

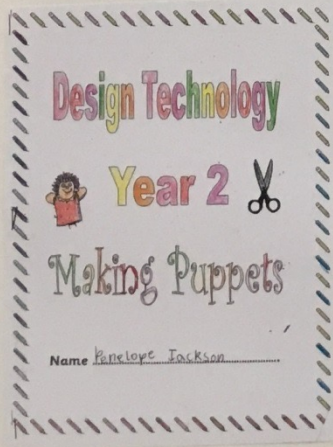
## Design and make puppets



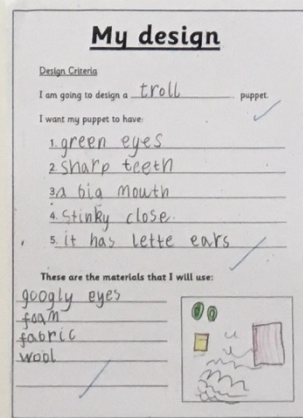
Make



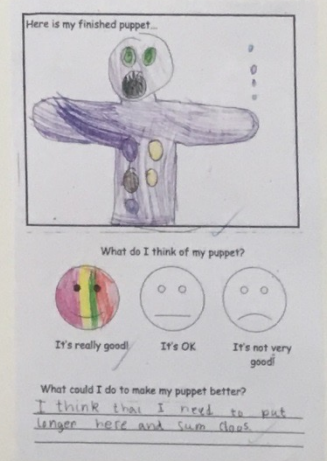
Design



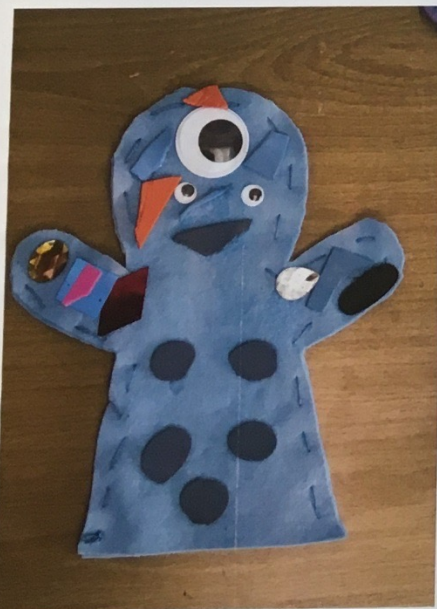
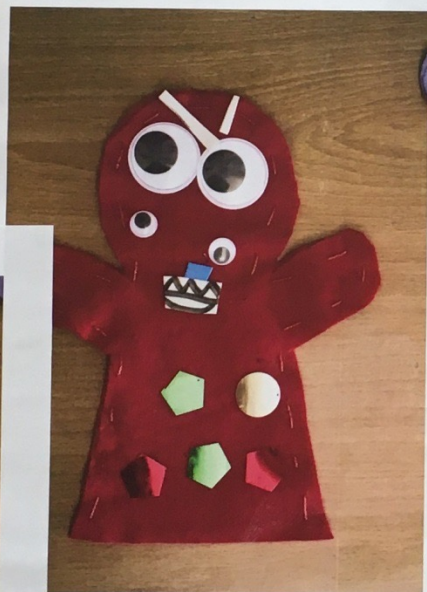
Sew the fabric



Evaluate



Year 2



# Year 2 Design and make a pizza

## Food Technology

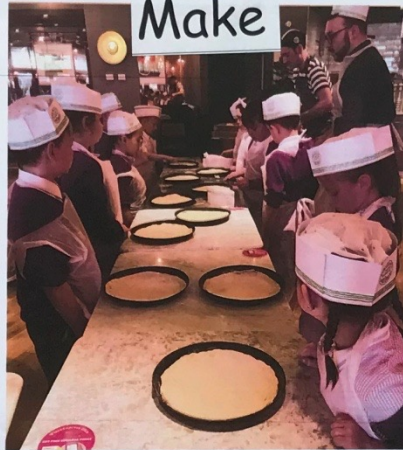
### Design

Wash hands

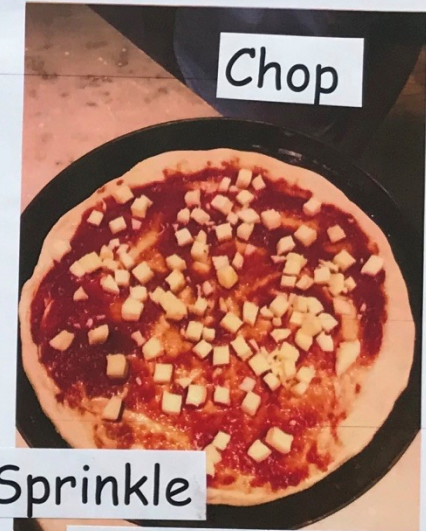
Weigh



Make



Chop



Sprinkle

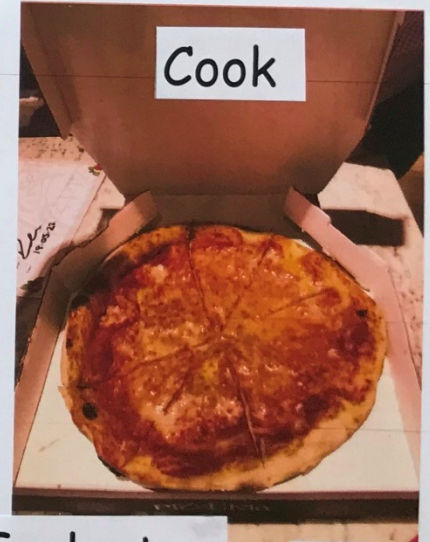
Knead



Spread



Cook



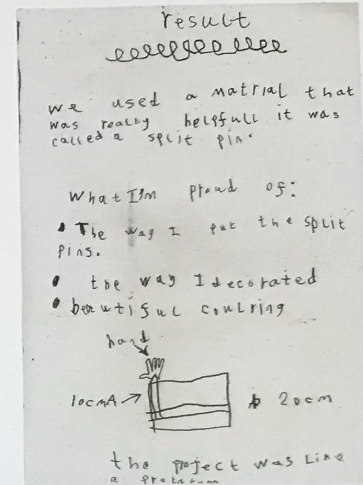
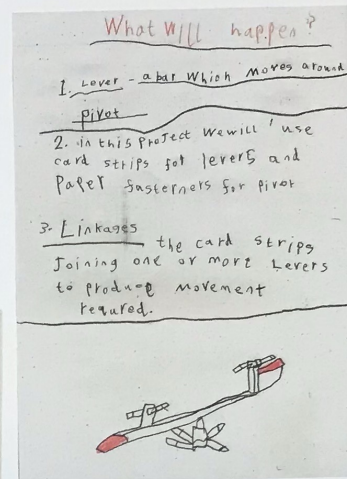
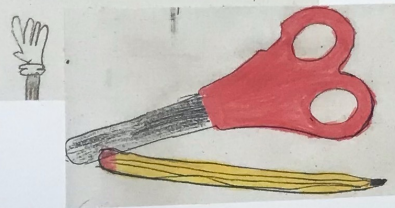
Evaluate

Taste

# Year 3 Moving

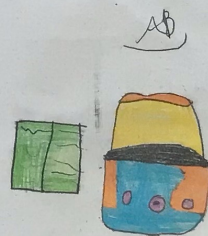
## Design and make a moving mechanism

### Levers and Linkages



## Design ideas

### Levers and Linkages



Designer

### Levers and Linkages

Designer

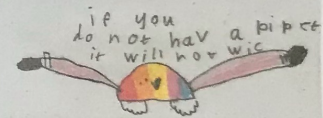
Things I am proud of:

- the way I decorated my hand
- my cutting skills
- Beautiful colouring

## Evaluate

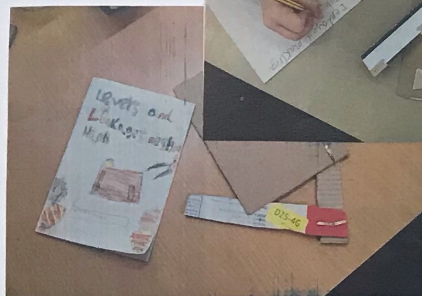
Lever - a bar which moves around a pivot.  
In this project we will use card strips for levers and paper fasteners for pivots.

Linkage - the card strips joining one or more levers to produce movement required



if one of you go on by it 2 of you go on on

## Make



# Year 3

## Design and make a picture frame



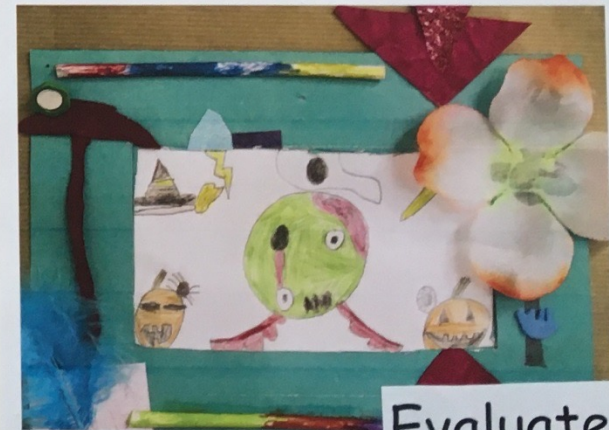
### Design



### Make



### Evaluate



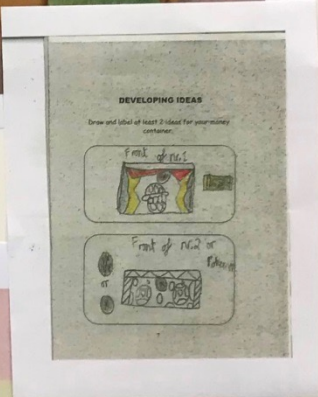
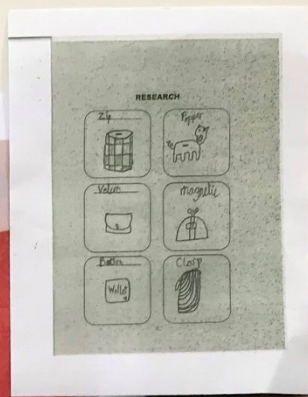
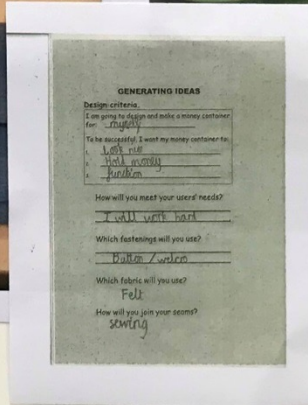
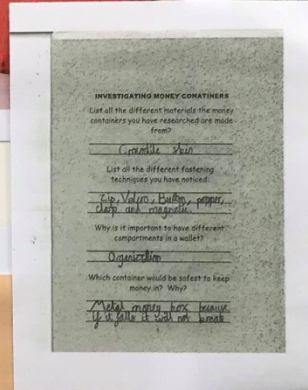
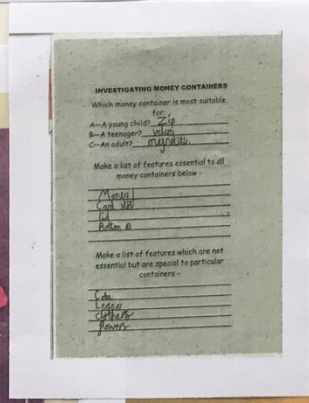
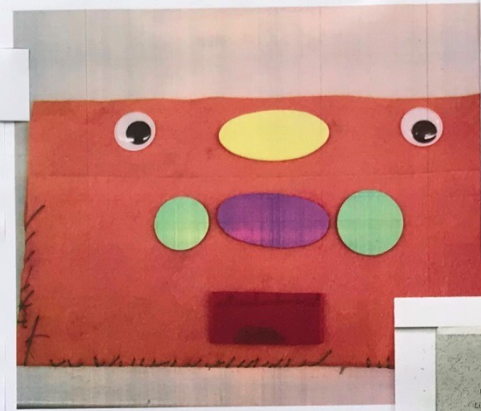
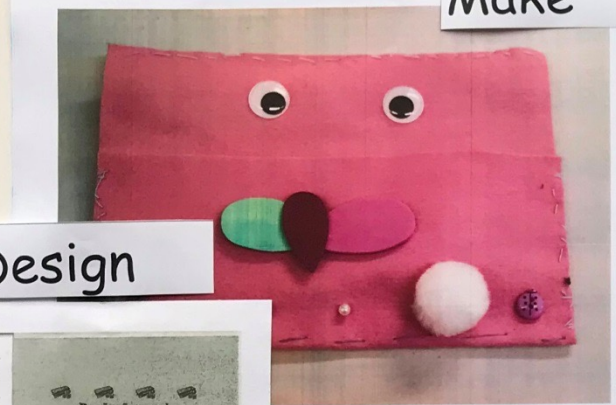
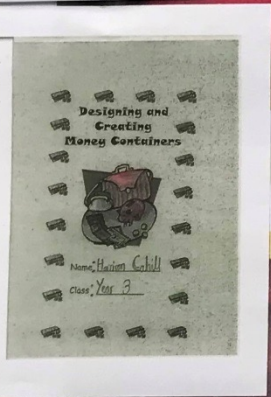
# Year 3 Design and make a money wallet

Make

Design

Sewing

Evaluate



Year 3

Food Technology

Savoury

Bread

Design



Weigh ingredients



Make



Healthy diet



Bake



Evaluate



# Year 4

## Design and make a Roman catapult



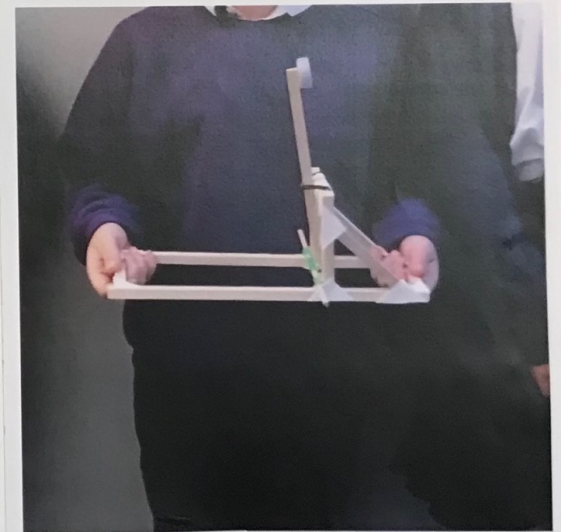
Measure



Wood



Saw



Cut

# Year 4 Design and make a Roman catapult

## Design Technology Project Booklet

### Design ideas

DT unit:

### Moving



#### Design Brief

Product: Roman Catapult  
 User: Romans  
 Purpose: To launch at a target

## Design Technology Project Booklet

Name: Jessica Brough

Term: 1

DT unit: Roman Catapult



#### Design Brief

Product: Roman catapults  
 User: Romans  
 Purpose: To launch objects at a target.

#### Design Research

Find examples that you might use for inspiration or ideas for your design project. Glue in pictures, information or brainstorm ideas.



#### Design ideas

Design Idea 1 (realistic)



Design Idea 2 (as imaginative as possible!)



#### Design Research

Find examples that you might use for inspiration or ideas for your design project. Glue in pictures, information or brainstorm ideas.



#### Design ideas

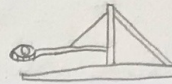
Design Idea 1 (realistic)



Design Idea 2 (as imaginative as possible!)



#### My Final Design



### Diagrams

#### Preparation

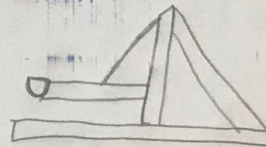
##### Materials

- 10mm Wooden Dowel
- 10mm Wooden Dowel
- Bottle cap
- Pin
- Rubber band
- Paper Card
- Glue sticks

##### Equipment / Tools

- Tape measure
- Saw
- Glue gun

#### My Final Design



#### Preparation

##### Materials

- 10mm Wooden Dowel
- 10mm Wooden Square
- bottle cap
- pin
- Rubber band
- glue sticks

##### Equipment / Tools

- Tape measure
- Saw
- glue gun

#### My Finished Product



### Make

#### Evaluation

What do I like about my product?

It worked, because it fired the marble far

What could I improve?

It could be used a bigger container to fire bigger things like a rock



#### My Finished Product



### Evaluate

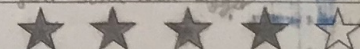
#### Evaluation

What do I like about my product?

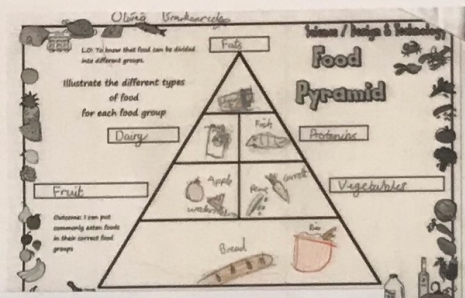
it fired a marble

What could I improve?

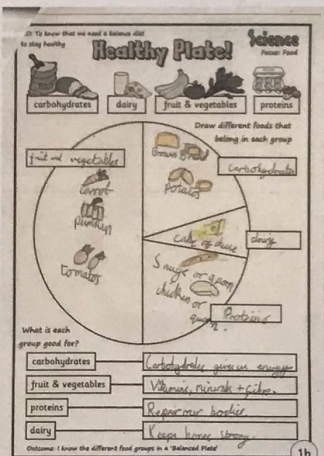
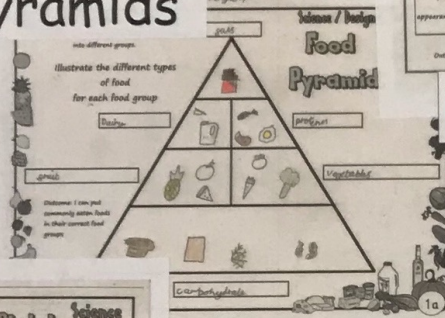
instead of a bottle cap, you can use some stick bigger stuff like a rock



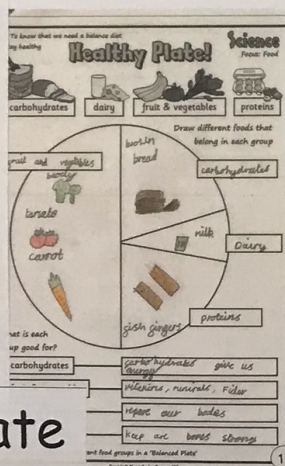
# Year 4 Design and make a cereal bar



## Food Pyramids



## A healthy plate



**Design & Technology**

**Cereal Bars**

LO: To investigate different types of food.

Look closely at different cereal bars. Illustrate how they look and briefly describe each one.

name: <u>cherry baked</u>	ingredients: <u>dried cherry, brownie crumbs, wheat</u>
appearance: <u>Brown with red cherries on top</u>	Texture: <u>Soft and sticky</u>
name: <u>fruit &amp; nut</u>	ingredients: <u>raisins, almond, chocolate</u>
appearance: <u>Dark brown with nuts and raisins</u>	Texture: <u>Soft and sticky</u>
name: <u>chocolate chip</u>	ingredients: <u>chocolate chips, oatmeal, butter</u>
appearance: <u>Dark brown with chocolate chips</u>	Texture: <u>Soft and sticky</u>

Outcome: I can compare different types of food products.

**Design & Technology**

**Cereal Bars**

LO: To investigate different types of food.

Look closely at different cereal bars. Illustrate how they look and briefly describe each one.

name: <u>cherry baked</u>	ingredients: <u>dried cherry, brownie crumbs, wheat</u>
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name: <u>fruit &amp; nut</u>	ingredients: <u>raisins, almond, chocolate</u>
appearance: <u>Dark brown with nuts and raisins</u>	Texture: <u>Soft and sticky</u>
name: <u>chocolate chip</u>	ingredients: <u>chocolate chips, oatmeal, butter</u>
appearance: <u>Dark brown with chocolate chips</u>	Texture: <u>Soft and sticky</u>

Outcome: I can compare different types of food products.

## Texture and taste

**Design & Technology**

**Create a Cereal Bar**

LO: To have ideas for adapting a basic recipe.

Draw a cereal bar and label its texture and taste.

Texture: soft, sticky, chewy

Taste: chocolate, nutty, sweet

What would be the main ingredients?

honey, chocolate chips, peanut butter, oats, raisins

Why have you chosen these ingredients?

We chose honey and peanut butter to stick the oats together. We chose raisins to give the bar a chewy texture. We chose chocolate chips and oatmeal to give it a sweet taste.

Outcome: I can think of ideas for adapting a basic recipe.

**Design & Technology**

**Create a Wrapping**

LO: To have ideas for adapting a basic recipe.

Illustrate a wrapping for your cereal bar.

What kind of information would you need to show?

you need to show the ingredients, nutritional information, description of product and name.

Outcome: I can think of ideas for a wrapping for my cereal bar.

## Design

**Design & Technology**

**Create a Wrapping**

LO: To have ideas for adapting a basic recipe.

Illustrate a wrapping for your cereal bar.

What kind of information would you need to show?

The ingredients, nutritional information, description of product, name.

Outcome: I can think of ideas for a wrapping for my cereal bar.

## Make

**Design & Technology**

**Create a Cereal Bar**

LO: To evaluate work.

Evaluate how well you made a cereal bar.

What do you think of your cereal bar?

I liked it a lot! I can make it better next time.

Do you need to improve your cereal bar?

Yes, I will add nuts.

What else could you do to make it different?

Less oats. More peanut butter.

Outcome: I can evaluate my work and think of ways to improve a cereal bar and make suggestions.

## Evaluate

**Design & Technology**

**Create a Cereal Bar**

LO: To evaluate work.

Evaluate how well you made a cereal bar.

What do you think of your cereal bar?

I liked it a lot! I can make it better next time.

Do you need to improve your cereal bar?

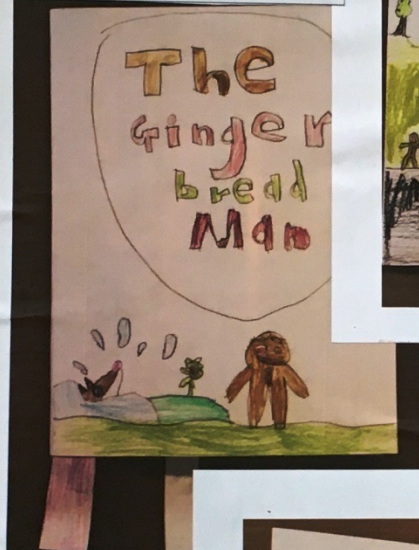
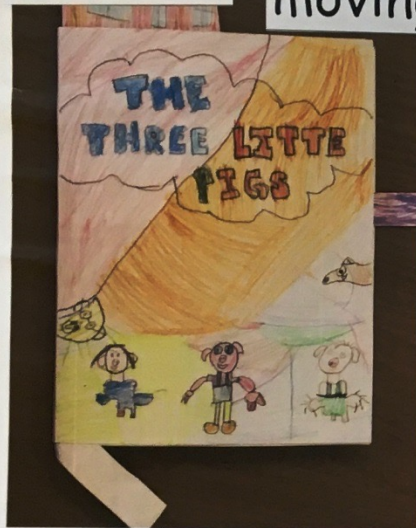
Yes, I will add nuts.

What else could you do to make it different?

Less oats. More peanut butter.

Outcome: I can evaluate my work and think of ways to improve a cereal bar and make suggestions.

# Year 4 Design and make a moving book



Make



Design



Evaluate



## What aim could your game have?

Here are some ideas:

To score the most points

To collect the most money

To reach the top of the mountain first

Write down some ideas for different aims.

To score the most goals

To become a professional footballer

## What special features could your game have?

Your game could have something that makes it just that bit special.

Maybe it could have ...

A spinner instead of a dice

Cards which you pick up

Counters with special shapes

Write down some different ideas of your own.

a football dice

a tabletop football type of board

DESIGN A BOARD GAME  
© Shell Centre for Mathematical Education/Joint M

## Brainstorming sheet

Filled in by Jack Marshall

20.10.21

## What could the theme be?

Your game could be about many things.

A gold robbery

An escape

A trip round the world

A murder mystery

A school day

Pop music

A shopping spree

Now write down some more ideas of your own ...

football theme

win the game by becoming the most professional

become the best manager

choose a team

grow up as a football-loving child

win leagues and trophies

M7

## Design and make a moving game

## Design

## GAME PLAN

Names Jack Marshall and Issa

21.10.21

Our game is called ... Pick your football career

Who it's for ... Kids who enjoy football.

Good, you have thought about target audience what aged children?

What you need in order to play ...

Standard and football dice, Premier league team cards, football characters

What it's about ... You start off as a child and make your way up to become a professional footballer

Aims of the game ... to score the most goals and become the best in the world.

## Rules

How to start ... you roll a football dice and if it lands on 3 for a demonstration you age up 3 years

How to make a move ... A certain character can move a certain amount of spaces

Other rules ... if you land on a offside flag you move back three spaces. If you land on a red card space you get sent off. If you land on a tackle space you can remove a rating off another players trait.

Great set of rules

DESIGN A BOARD GAME  
© Shell Centre for Mathematical Education/Joint Matriculation Board 1987

M9

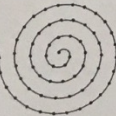
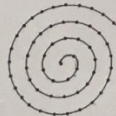
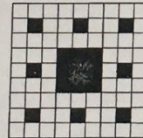
JACK MARSHALL

## Brainstorming sheet (continued)

What could the board look like? ...

Make your board look as interesting as possible.

Here are some ideas for different board shapes:



You could have a race-track, a map, a plan of a house or ...

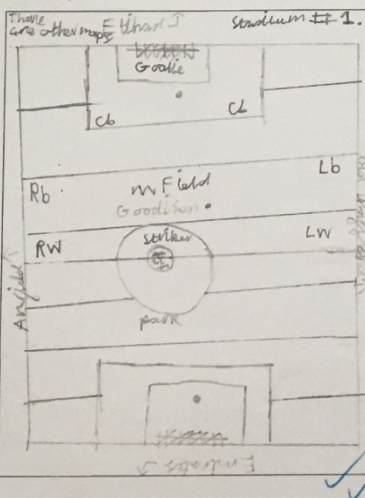
DESIGN A BOARD GAME  
© Shell Centre for Mathematical Education/Joint Matriculation Board 1987

20.10.21

Now sketch some ideas of your own in the space below.

Use a separate sheet of paper if you need more room.

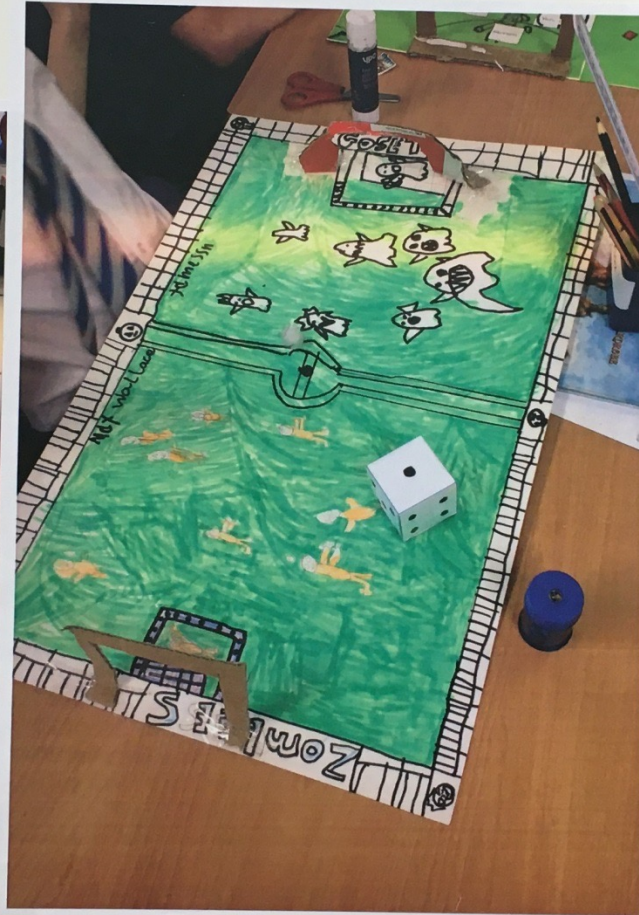
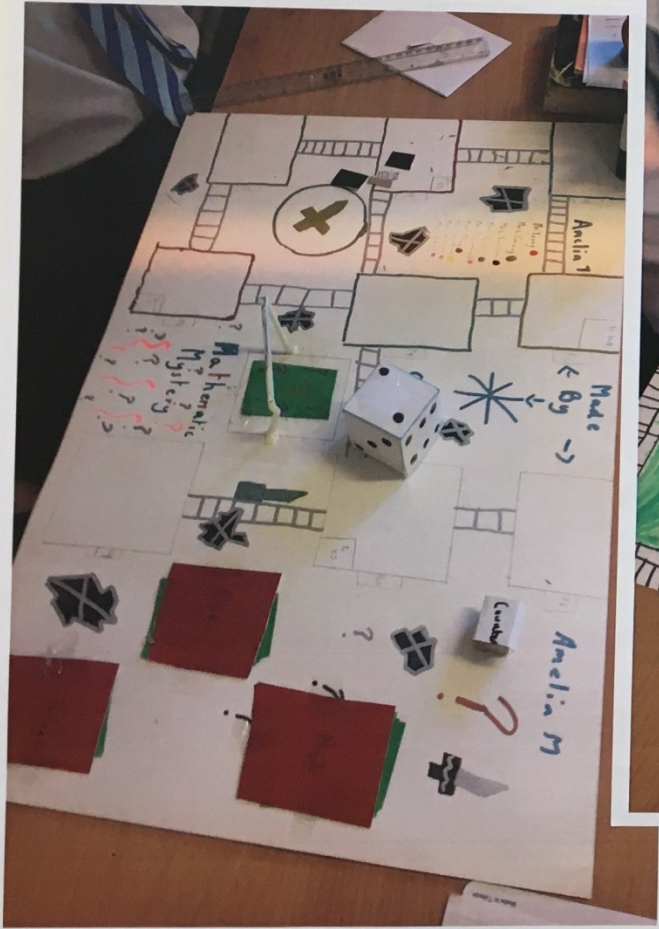
Ask your teacher for lined or dotted paper if you need any.



M8

# Year 5

## Design and make a moving game



## Design and make a board game

[illegible]

# Year 5

## Design and make a moving boat

### Making Boats



Year 5

### Design sketch

Can I investigate the best materials to make

Write the materials tested.  
Explain why you would or would not use each one.

It is waterproof, it sank slowly and it is very flexible it is not too heavy and not too light.  
I recommend

Acetate.

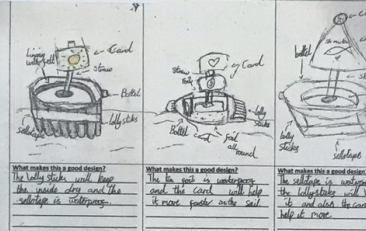
It is not waterproof, it is absorbent and it is too heavy but not too light.  
I recommend

Photo Paper

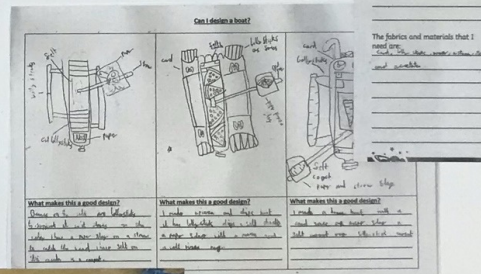
Card

Fab.

Word bank: waterproof sturdy strong absorbent heavy light



### Diagrams



### My Final Design

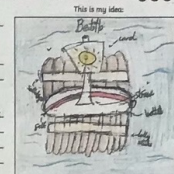
Name: Chen Baochen

I am going to make: a boat

The tools that I need are: Scissors and glue and what I need.

The fabrics and materials that I need are: a bottle, fly stick, straw, felt and card to make my boat.

Can I plan?



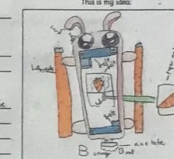
### My Final Design

Name: Gracie

I am going to make: a boat

The tools that I need are: Scissors and Glue and what I need.

Can I plan?



### Design ideas



### Evaluate

1. Did your boat manage to float successfully?  
Yes my boat was a success it did float for 10 seconds even with some weight.
2. Did your boat look like your design?  
No I changed the design completely. My boat design was too hard and I changed all my boat ideas.
3. What do you think worked well with your boat?  
I chose for me waterproof material and it was very waterproof.
4. What would you change to make it better?  
If I was given good materials I would like to make a boat that was a bit bigger and I would like to make a boat that was a bit bigger and I would like to make a boat that was a bit bigger.

Can I evaluate my best design?

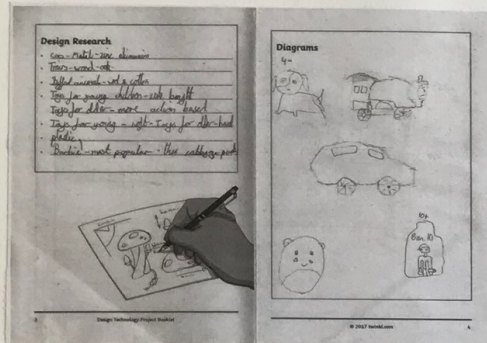
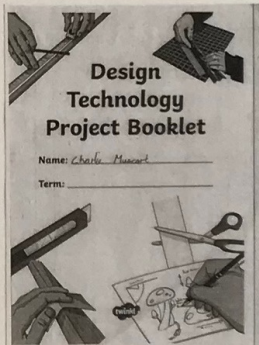
1. Did your boat manage to float successfully?  
Yes it did float in the water and it was a success.
2. Did your boat look like your design?  
Yes it did look like my design and it was a success.
3. What do you think worked well with your boat?  
I chose for me waterproof material and it was very waterproof.
4. What would you change to make it better?  
If I was given good materials I would like to make a boat that was a bit bigger and I would like to make a boat that was a bit bigger.

### Make

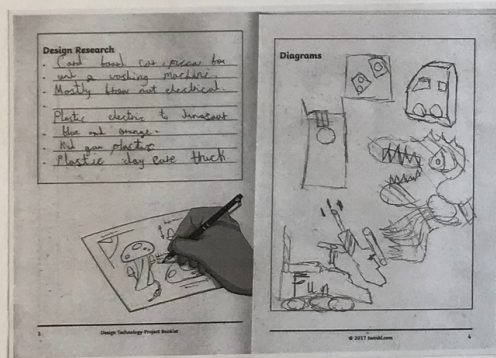


# Year 5

## Design and make a moving toy

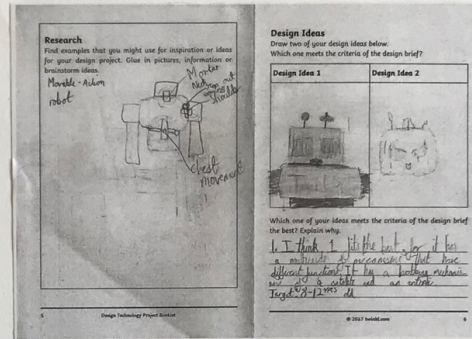


## Design research

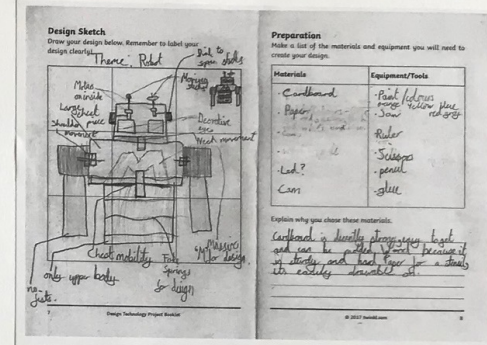
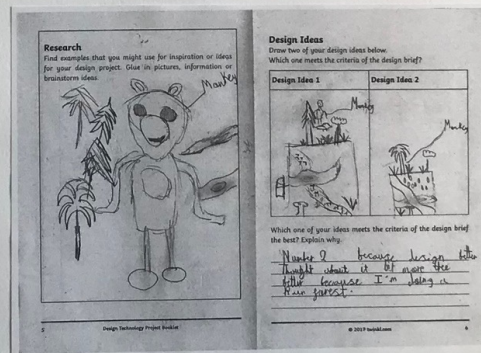


## Diagrams

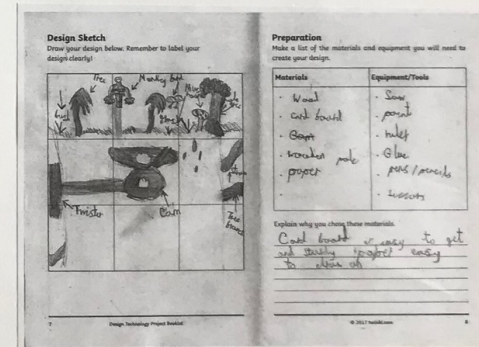
## Design ideas



## Design sketch



## Preparation

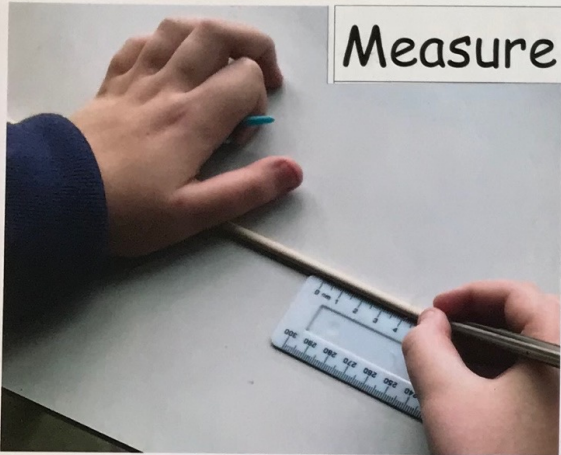


## Materials and tools

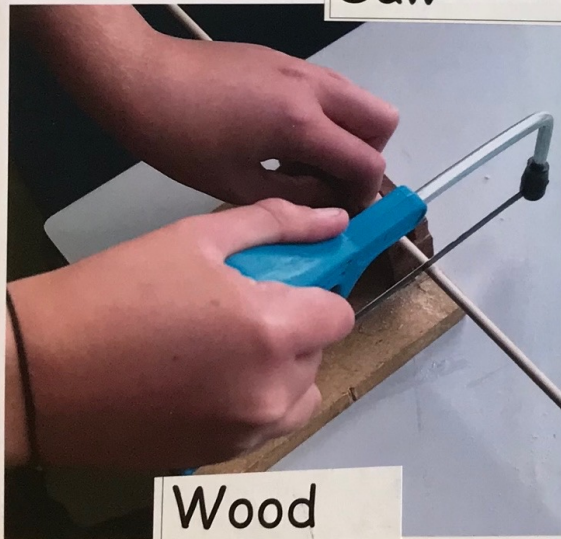
# Year 5

Design and make a moving toy

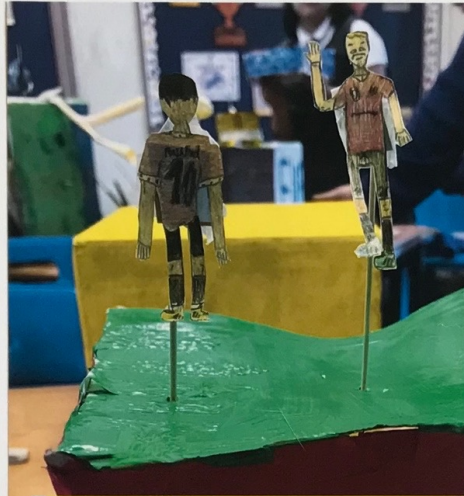
Measure



Saw



Wood



Cut



Paint



# Year 5 Products

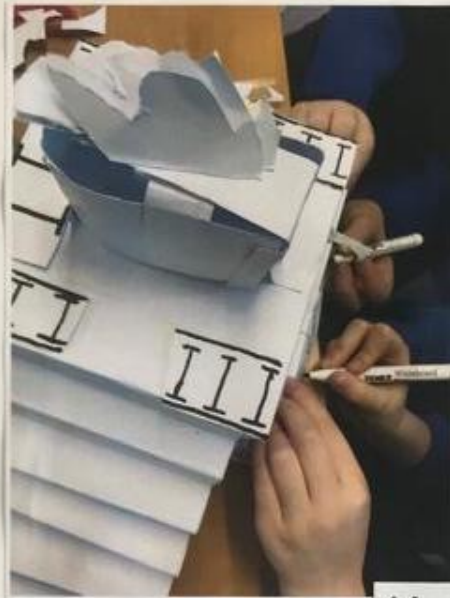
Greek architecture

Design



Strengthen

Measure accurately



Make



Evaluate



Year 5

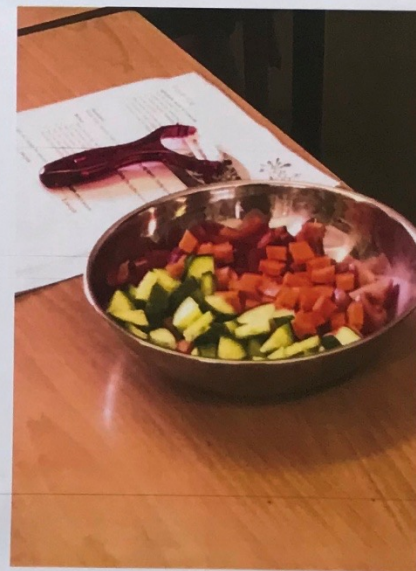
Design and make  
fajitas

Food Technology

Wash hands



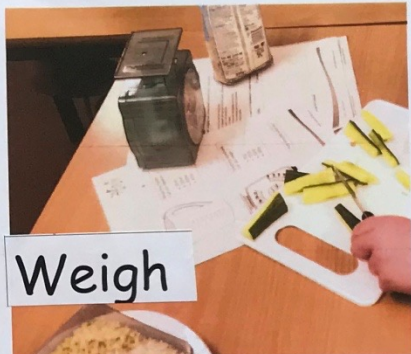
Chop



Year 5

Design and make  
fajitas

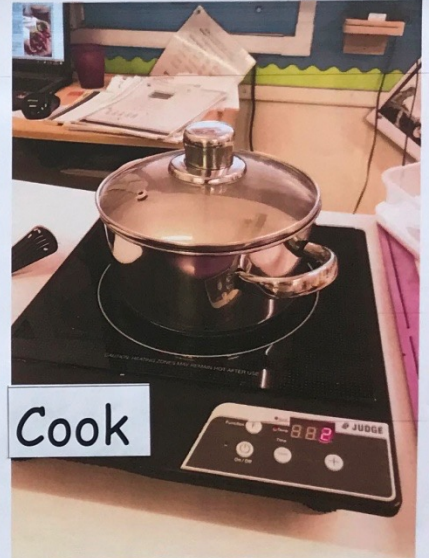
Food Technology



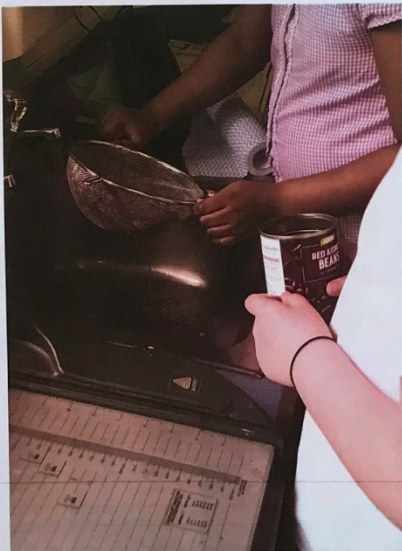
Weigh



Make



Cook



Taste



Evaluate

# Year 6

## Designing your own cereal packaging

Material: Cardboard

Why will you be using this material?  
Because its recyclable and makes the cereal last a long time.

Colours: Pink, white, the rainbow.

Why will you be using these colours?  
To make them stand out and catch eyes.

## Design and make a cereal box

### Design

## Designing your own cereal packaging

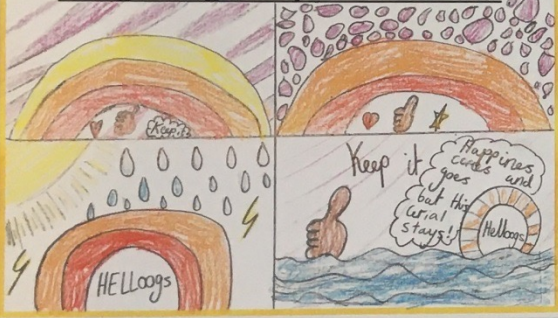
Material: card board

Why will you be using this material?  
because its recyclable.

Colours: blue, white, brown, pink

Why will you be using these colours?  
because there bright

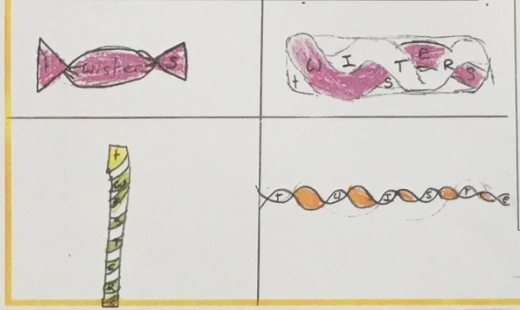
### Design a logo for your cereal box.



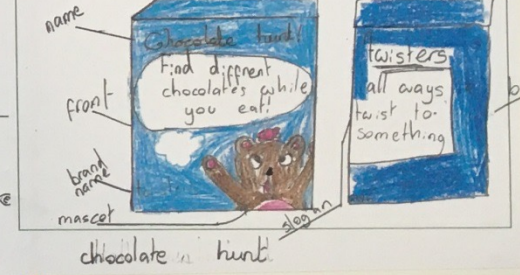
What will my packaging look like? Draw and label your design in the box.

Labels: Slogan, logo, name

### Design a logo for your cereal box.



What will my packaging look like? Draw and label your design in the box.



## Design Technology Project Evaluation Sheet

Aim of the Project:  
To make a cereal box.

What Worked Well?  
How my paints were all the right colours.  
How they all mixed perfectly.

Challenges I Faced  
Making the box inside out with glue.  
The time.



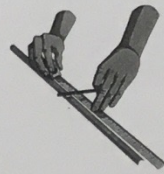
### Evaluate

## Design Technology Project Evaluation Sheet

Aim of the Project:  
To make a cereal box that will make a good sell.

What Worked Well?  
designing.

Challenges I Faced  
painting



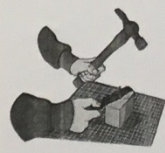
How I Dealt with Any Challenges  
Instead of glue we used tape.  
speed speeded up.

What I Would Change Next Time  
Nothing it worked out perfect.  
Some of the colours in the rainbow.



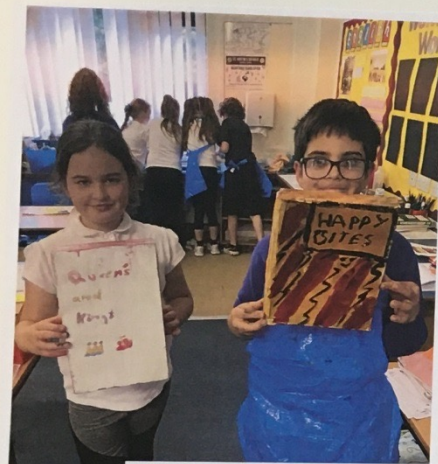
How I Dealt with Any Challenges  
because when the glue wouldn't stick. I used tape.

What I Would Change Next Time  
drawing not painting and paint  
the outside we paint and not flipping it inside out.



# Year 6

## Make



# Year 6

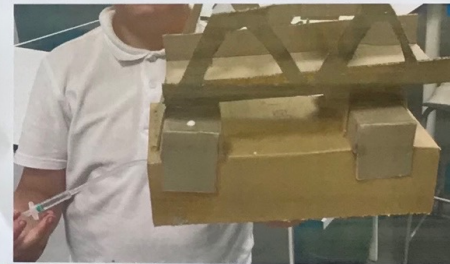
Design and make a moving bridge

Design



Make

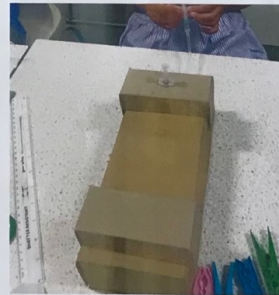
Measure



Evaluate

Hydraulics

Cut



# Year 6

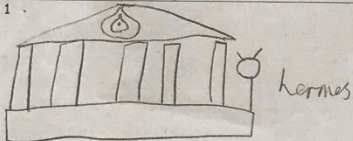
## Design and make a Temple

I am designing a Greek temple

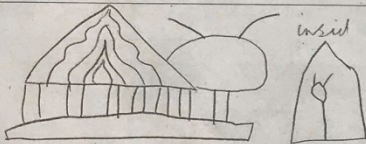
What materials I will use and why  
Paper to draw on,  
Cardboard to build it,  
Bottle caps to build it.

What equipment I will use and why  
Pencil to draw with,  
Ruler to help steady,  
and 10 rulers to line it up  
exactly.

Design 1



Design 2



My Design

Name Temple of Zeus

I am designing a Greek temple

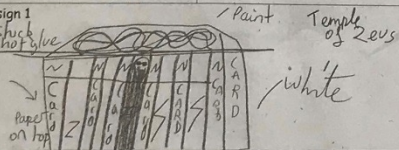
What materials I will use and why

Cardboard +  
Paper

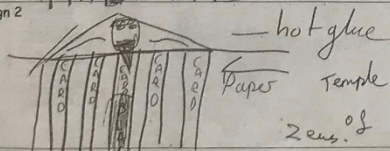
What equipment I will use and why

I will use  
Scissors that glue.

Design 1



Design 2



Plans - Step by step

- Build base
- Get toilet rolls for pillars
- Glue pillars onto base
- Build roof
- Glue roof on
- Make pearls
- Glue pearls on
- Draw cord on the base
- Cut out seaweed
- Glue seaweed on
- Colour in
- Draw on Poseidon

## Design

I am designing a Greek temple

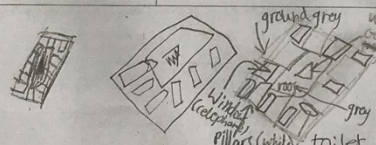
What materials I will use and why

paper  
color styrene  
cardboard  
pop stick sticks  
toilet roll  
rolls.

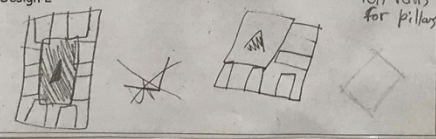
What equipment I will use and why

celotape  
glue  
hot glue  
paint  
paint brushes

Design 1



Design 2



Plans - Step by step

- 1) Make the base as strong as possible out of cardboard.
- 2) Make the pillars out of an empty toilet roll.
- 3) Stick pillars to the base.
- 4) Make a sign
- 5) put the sign in the middle
- 6) Make a roof
- 7) Paper all around
- 8) Draw sign on the roof
- 9) add details
- 10) finish product / final result

## Make

Plans - Step by step

- 1) Make the base.
- 2) use toilet rolls for columns
- 3) Put the building in.
- 4) put roof on.
- 5) make everything white + cover up holes.
- 6) draw on it.

## Evaluate

Evaluations / Alterations and why you have done this?  
we change the cardboard to rolled up paper because it gave the temple a stronger structure.

What would I do better next time?  
I would use different materials like clay to mold the shapes into what I would have used.

Evaluations / Alterations and why you have done this?  
one alteration is that with the cardboard everything could stick to it and I did this so I could make the roof.

What would I do better next time?  
I would use stronger paper and normal tape not making myspins tape.

# Year 6

## Design and make a Temple



Year 6

Design and make  
afternoon tea

Food Technology

Design

Cost



Wash hands



Spread



Weigh ingredients



Chop



Taste

Evaluate



Make

