

Our Curriculum



Rationale & Intent

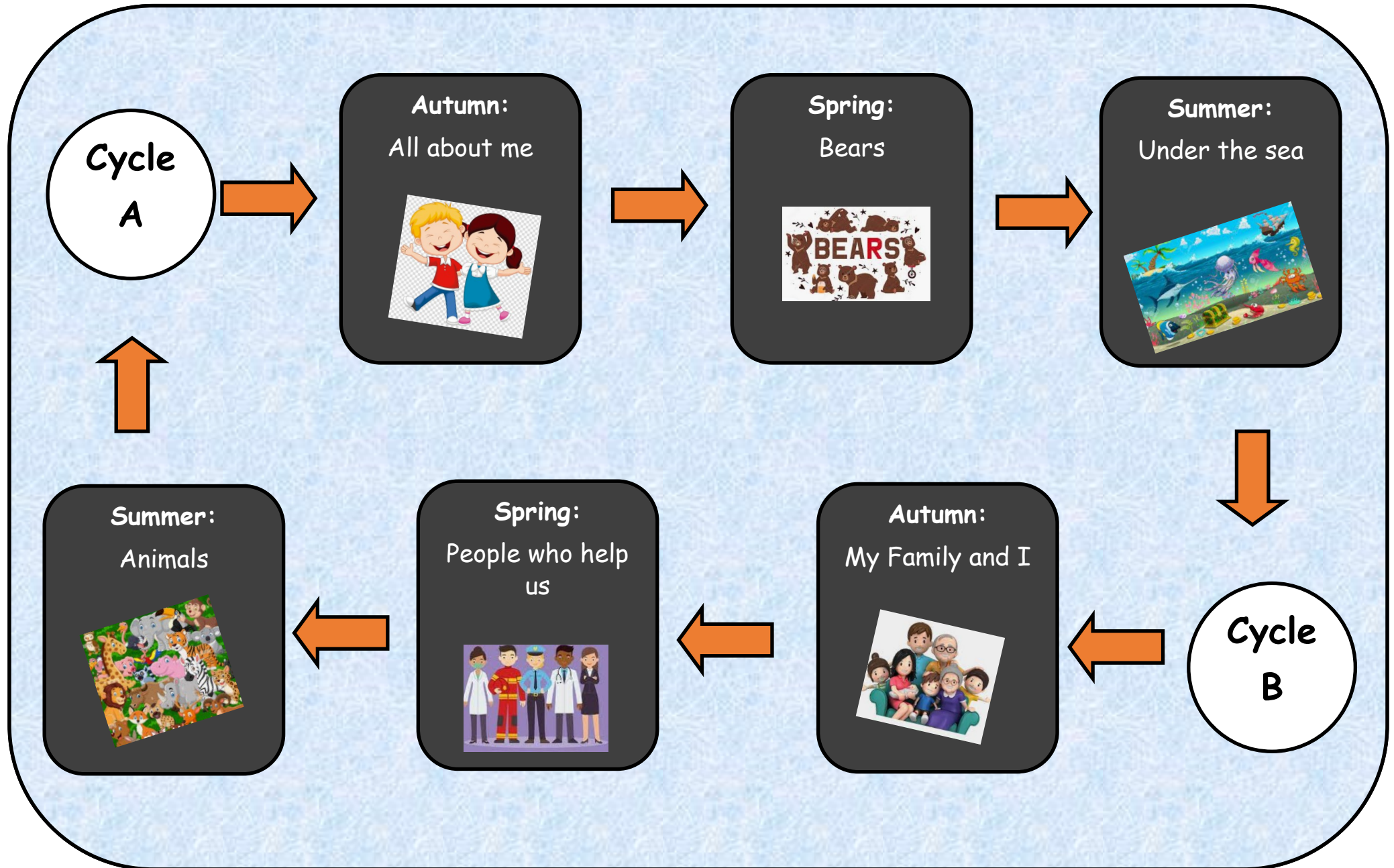
At Newton Hill Community School we provide high-quality teaching of Design & Technology that will enable pupils to become resourceful, innovative and enterprising citizens. We aim to inspire pupils' curiosity of a products functions, aesthetics and consumer implications. Teaching equips pupils to take risks, think critically, critique, evaluate and test products. Allowing them to develop the creative, technical and practical expertise to design and make high quality products.

Pupils will also learn about nutrition and apply this knowledge when learning how to cook.

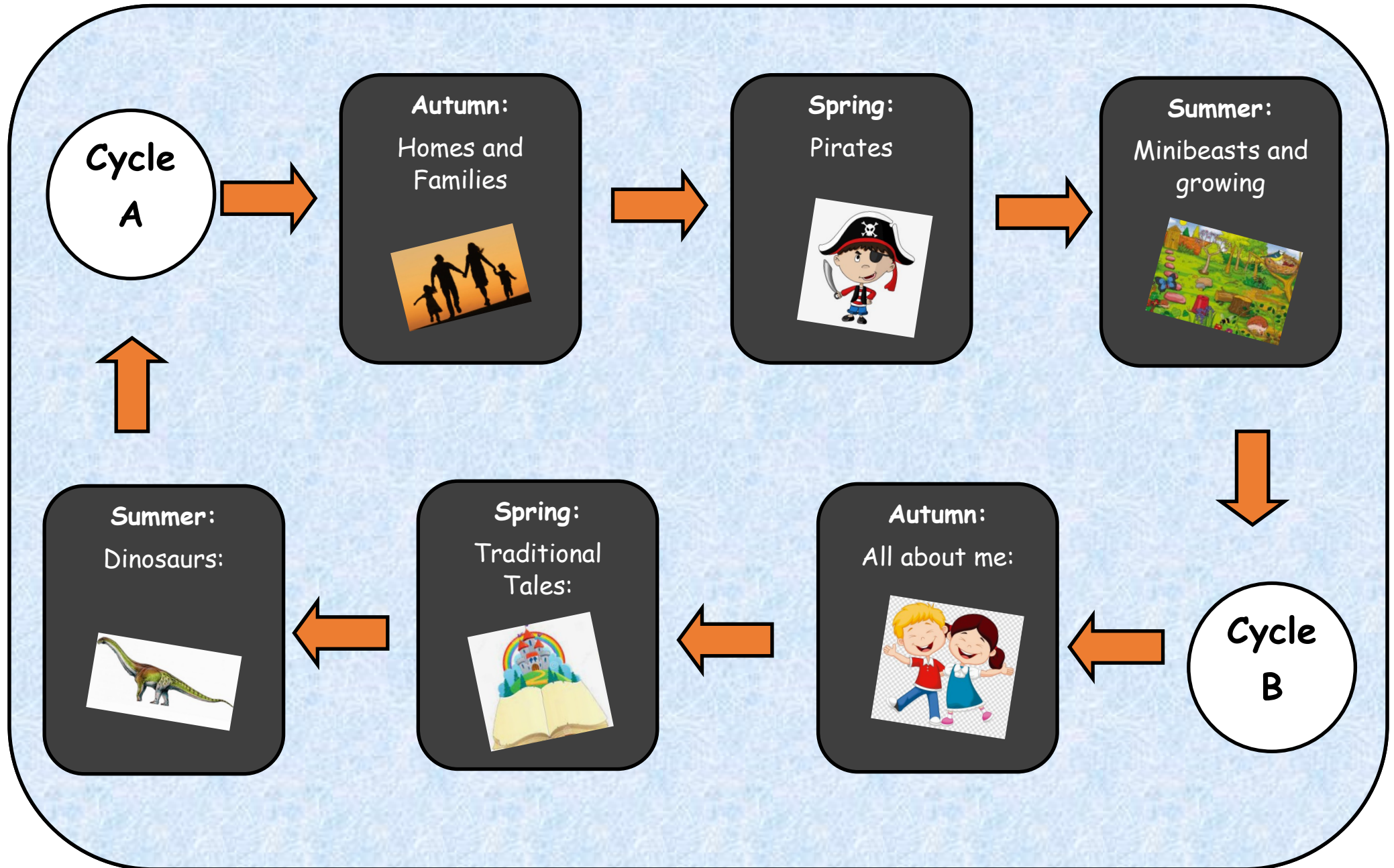
The national curriculum for Design & Technology aims to ensure that all pupils:

- Develop, plan and communicate ideas using different methods of research when studying products and creating prototypes.
- Evaluate finished products against the design criteria and the intended purpose.
- To work with accuracy, learning how to appropriately construct and join different materials using a range of tools.
- To learn different stitch methods and decorate textile products using a range of techniques.
- To develop a secure understanding of safe procedures in food safety and hygiene.
- To be able to weigh, join and combine different food types for an intended purpose.

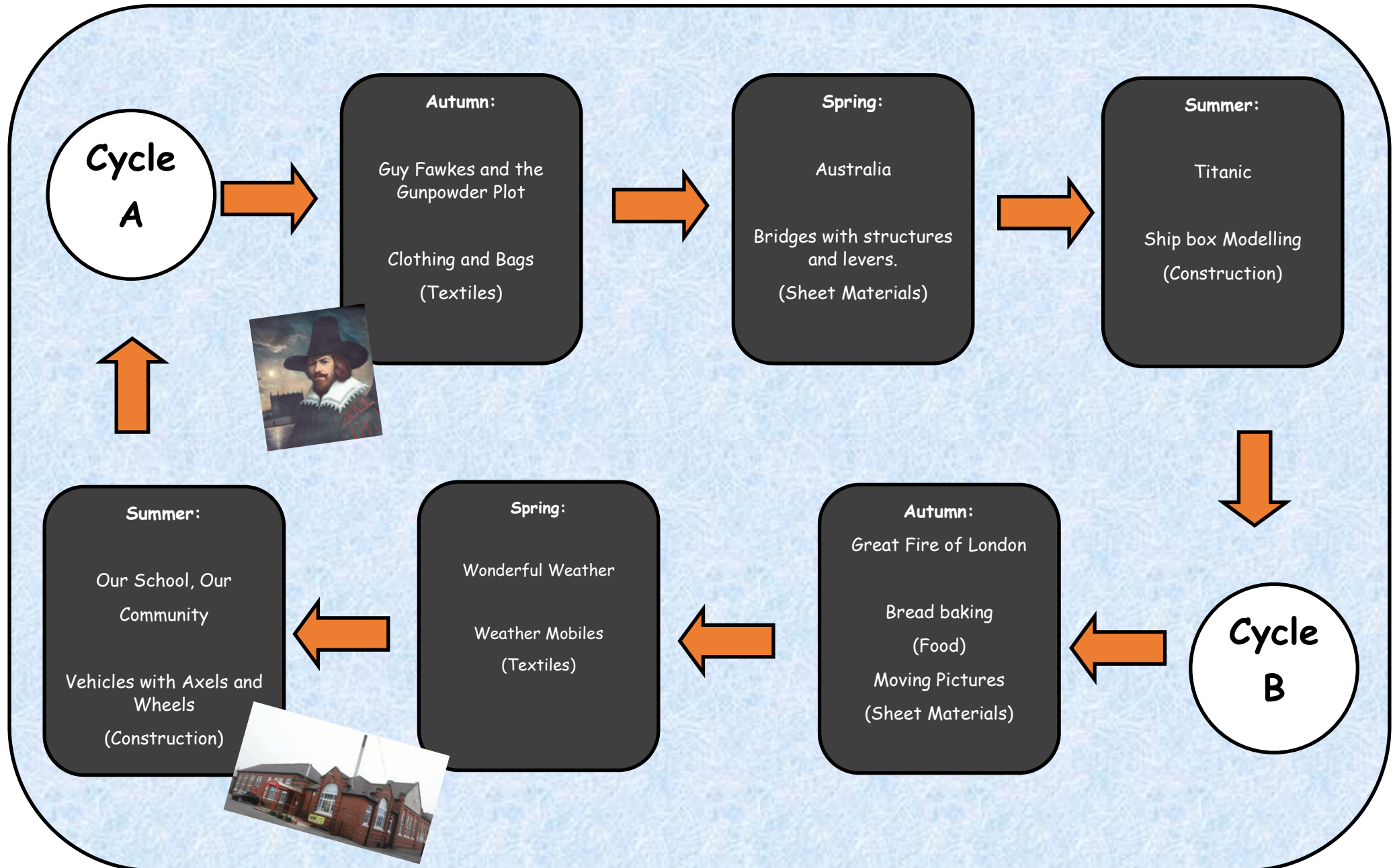
Nursery Journey



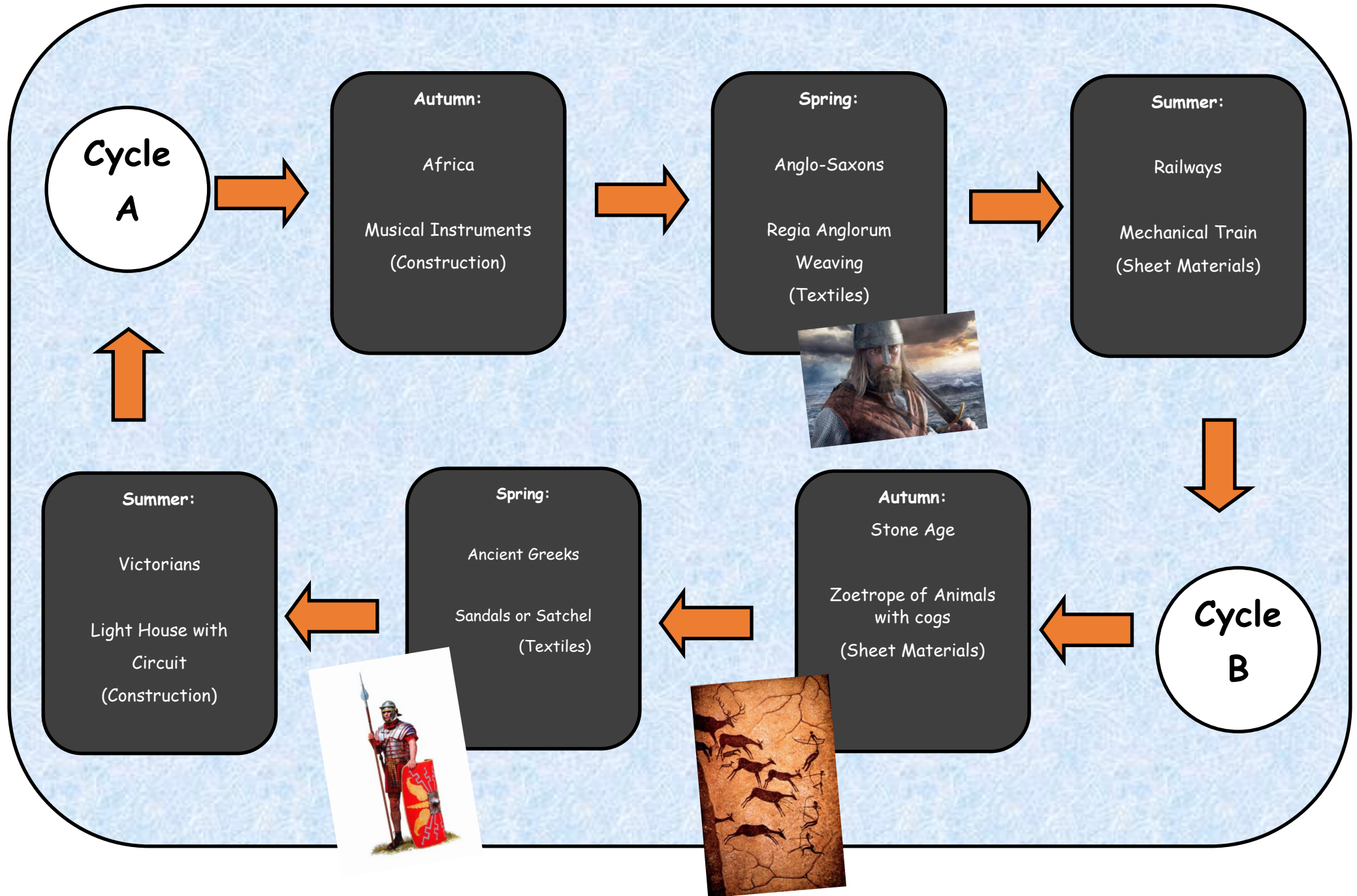
Reception Journey



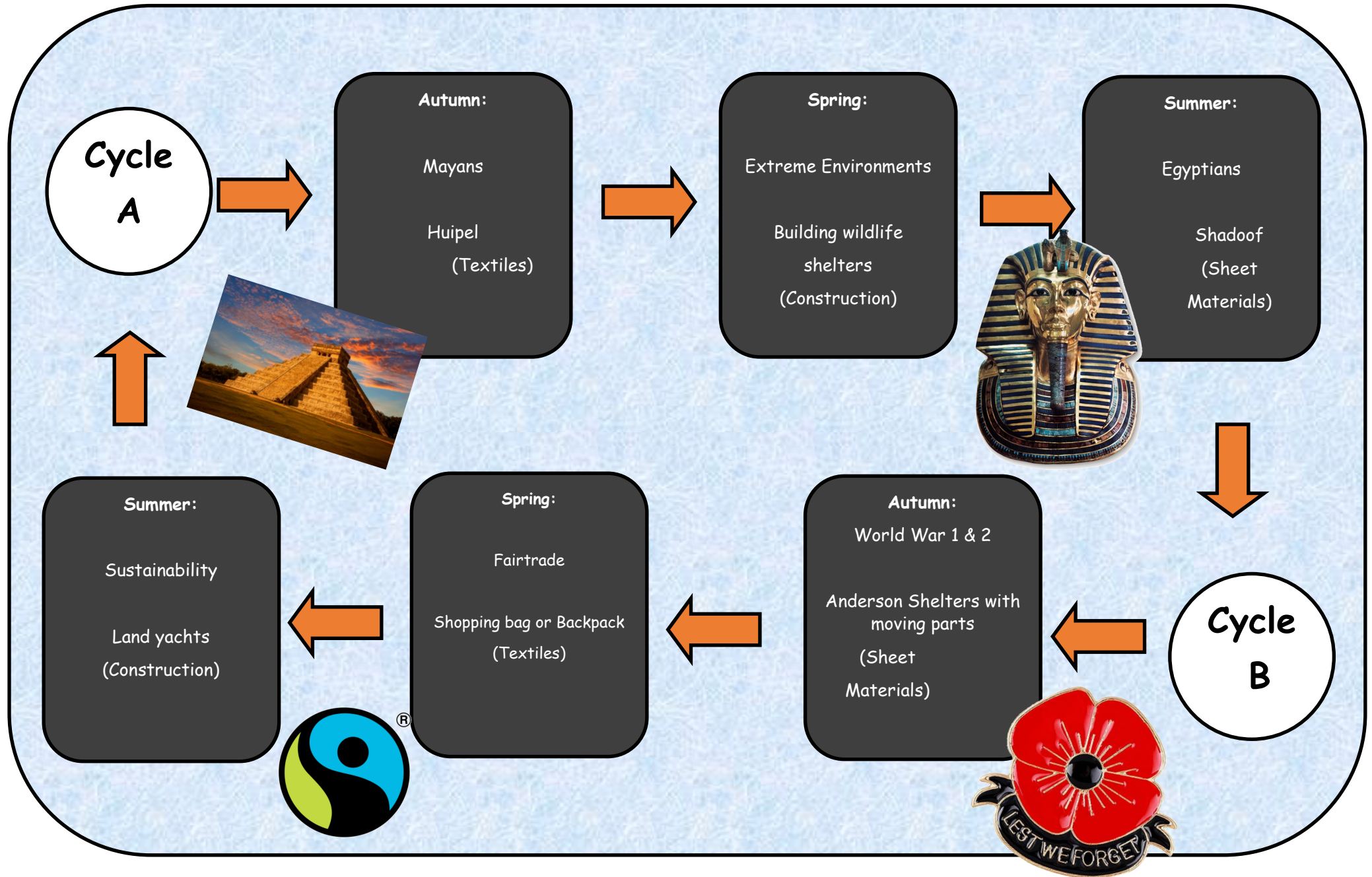
KS1 Journey



Lower Key Stage 2 Journey



Upper Key Stage 2 Journey



Nursery Skills

Design & Technology

Planning

Construction

Textiles

Sheet

Evaluating

Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them. (PSED)

Use large-muscle movements to wave flags and streamers, paint and make marks. (PD)

Choose the right resources to carry out their own plan. (PD)

Use one-handed tools and equipment, for example, making snips in paper with scissors. (PD)

Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park. (EAD)

Explore different materials freely, in order to develop their ideas about how to use them and what to make. (EAD)

Develop their own ideas and then decide which materials to use to express them. (EAD)

Create closed shapes with continuous lines, and begin to use these shapes to represent objects. (EAD)

Food Technology

Be increasingly independent about care needs. (PD)

Make healthy choices about food and drink. (PD)

Use one handed tools. (PD)

Reception Skills

Design & Technology

Planning
Construction
Textiles
Sheet
Evaluating

Explore, use and refine a variety of artistic effects to express their ideas and feelings. (PD)
Return to and build on their previous learning, refining ideas and developing their ability to represent them. (EAD)
Create collaboratively, sharing ideas, resources and skills. (EAD)
Use a range of small tools, including scissors, paintbrushes and cutlery. (PD)

Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. (EAD)

Food Technology

Know and talk about factors that effect their overall health. (PD)
Develop small schools competently. (PD)
Develop personal hygiene skills. (PD)
Use a range of small tools, including scissors, paintbrushes and cutlery. (EAD)

Year 1 Skills

Developing, Planning and Communicating Ideas

Follow verbal instructions.

Name the tools and materials they are using.

Begin to plan ahead by suggesting what they might do next.

Select pictures to help develop ideas.

Communicate their ideas using a variety of methods such as drawing, making models and discussion.

Construction

Develop skills to match, mark out, cut and shape.

Develop skills to assemble, join and combine materials.

Handle tools, objects, construction and malleable materials safely.

Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels.

Textiles

Colour fabrics using a range of techniques e.g. fabric paints, printing, painting.

Cut out shapes which have been created by drawing round a template onto the Fabric.

Food

Develop a food vocabulary using taste, smell, texture and feel.

Group familiar food products e.g. fruit and vegetables.

Follow safe procedures for food safety and hygiene.

Sheet Materials

Fold, tear and cut paper and card.

Know about simple mechanisms such as pop ups and slides.

Insert paper fasteners for card linkages.

Evaluating

Talk about their ideas.

Say what they like and do not like about what they have done.

Year 2 Skills

Developing, Planning and Communicating Ideas

Develop ideas and use materials such as fabric, paper, card, clay, wood, modelling materials.

Investigate, disassemble and evaluate a range of familiar products such as simple toys.

Explain how the product works.

Plan ahead by suggesting what they might do next as their ideas develop.

Communicate their ideas using a variety of methods such as drawing, making models, writing, discussion and using ICT.

Construction

Select from a range of tools, techniques and materials provided by the teacher.

Explain their choices.

Know about simple mechanisms such as wheels and axles.

Mark out materials to be cut using a template.

Join different materials appropriately e.g. glue and tape.

Cut strip wood/dowel using hacksaws under close supervision.

Textiles

Join fabrics by using simple running stitch, glue, staples and tape.

Decorate fabrics with buttons, beads, sequins, braids, ribbons.

Food

Cut, peel, grate, chop a range of ingredients.

Work safely and hygienically.

Measure and weigh food items, non statutory measures e.g. spoons, cups.

Sheet Materials

Create hinges.

Create simple pop ups.

Investigate strengthening sheet materials.

Join different materials

Evaluating

Talk about their ideas, describe what they have done. State likes and dislikes.

Start to identify what they could have differently and how they could improve their work.

LKS2 Skills

Developing, Planning and Communicating Ideas

Draw/sketch products to help analyse and understand how products are made.
Design and make using the range of materials including electrical and mechanical components, food, mouldable materials, stiff and flexible sheet materials and textiles.
Start to put together a design brief detailing what they want their product to do.
Think ahead about the order of their work and decide upon tools and materials.
Plan a sequence of actions to make a product.

Construction

Measure, mark out, cut and shape a range of materials.
Assemble, join and combine components and materials with increasing accuracy.
Know how electrical circuits, including those with simple switches can be used to achieve results that work.
Create wood frame structures and strengthen frames with diagonal struts.
Understand and follow safe procedures for using a range of tools.
Use glue gun with close supervision (one to one).

Textiles

Join fabrics using running stitch, over sewing, back stitch.
Understand seam allowance.
Explore fastenings e.g. sew on buttons and make loops.
Prototype a product using J cloths.
Use appropriate decoration techniques e.g. appliqué (glued or simple stitches).
Create a simple pattern.

LKS2 Skills

Food

Develop sensory vocabulary/knowledge using, smell, taste, texture and feel.
Analyse the taste, texture, smell and appearance of a range of foods.
Join and combine a range of ingredients e.g. snack foods.
Measure and weigh ingredients with increasing accuracy.
Understand and follow safe procedures for food safety and hygiene.

Sheet Materials

Begin to explore how mechanisms such as levers, pivots and cogs can be used to make things move in different ways using a range of equipment.
Use and explore complex pop ups.
Create nets.

Evaluating

Identify what does and does not work in the product.
Make suggestions as how their design could be improved.
Discuss how well the finished product meets the design criteria and how well it meets the needs the needs of the user.

UKS2 Skills

Developing, Planning and Communicating Ideas

Generate ideas for products after thinking about who will use them and what they will be used for.

Collect ideas and information from a variety of sources including ICT.

Put together a design brief detailing what they want their product to do.

Plan what they have to do using a simple sequence of actions.

Make labelled sketches and prototypes.

Communicate design ideas different ways using correct technical vocabulary.

Construction

Explore the sensory qualities of a wider range of materials and how to use appropriate materials and processes.

Be aware of possible constraints.

Measure, mark out, cut and shape a range of materials, and assemble, join and combine components and materials with accuracy.

Use appropriate skills for using finishing techniques and strengthen and improve the appearance of the product using a range of equipment and tools including ICT

Explore how mechanisms such as those introduced in years 3 and 4 can be used to make things move in different ways using a range of equipment including ICT.

Build frameworks using a range of materials e.g. wood, card corrugated plastic to support mechanisms.

Understand, explain and follow safe procedures for using a range of tools.

Textiles

Create 3D products using pattern pieces and seam allowance.

Understand pattern layout.

Pin and tack fabric pieces together.

Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (close supervision).

Decorate textiles appropriately often before joining components.

Make quality products.

UKS2 Skills

Food

Prepare food products taking into account the properties of ingredients and sensory characteristics.

Select and prepare foods for a particular purpose Taste a range of ingredients to develop a sensory food vocabulary and use when designing.

Weigh and measure accurately using scales.

Join and combine food ingredients appropriately e.g. beating, rubbing in etc.

Decorate appropriately.

Understand and follow safe procedures for food safety and hygiene.

Sheet Materials

Cut accurately and safely to a marked line.

Join and combine materials with temporary, fixed or moving joins.

Use craft knife, cutting mat and safety ruler under one to one supervision [if appropriate].

Choose an appropriate sheet material for the purpose.

Evaluating

Reflect on the progress of their product as they work.

Carry out appropriate tests before making any improvements.

Recognise that the quality of the product depends on how well it is made and how well it meets its intended purpose.

Recognise how well products meet social, economic and environmental considerations.

Identify what does and does not work in the product.

Make suggestions as how their design could be improved.