

DT Progression Map

Cycle B

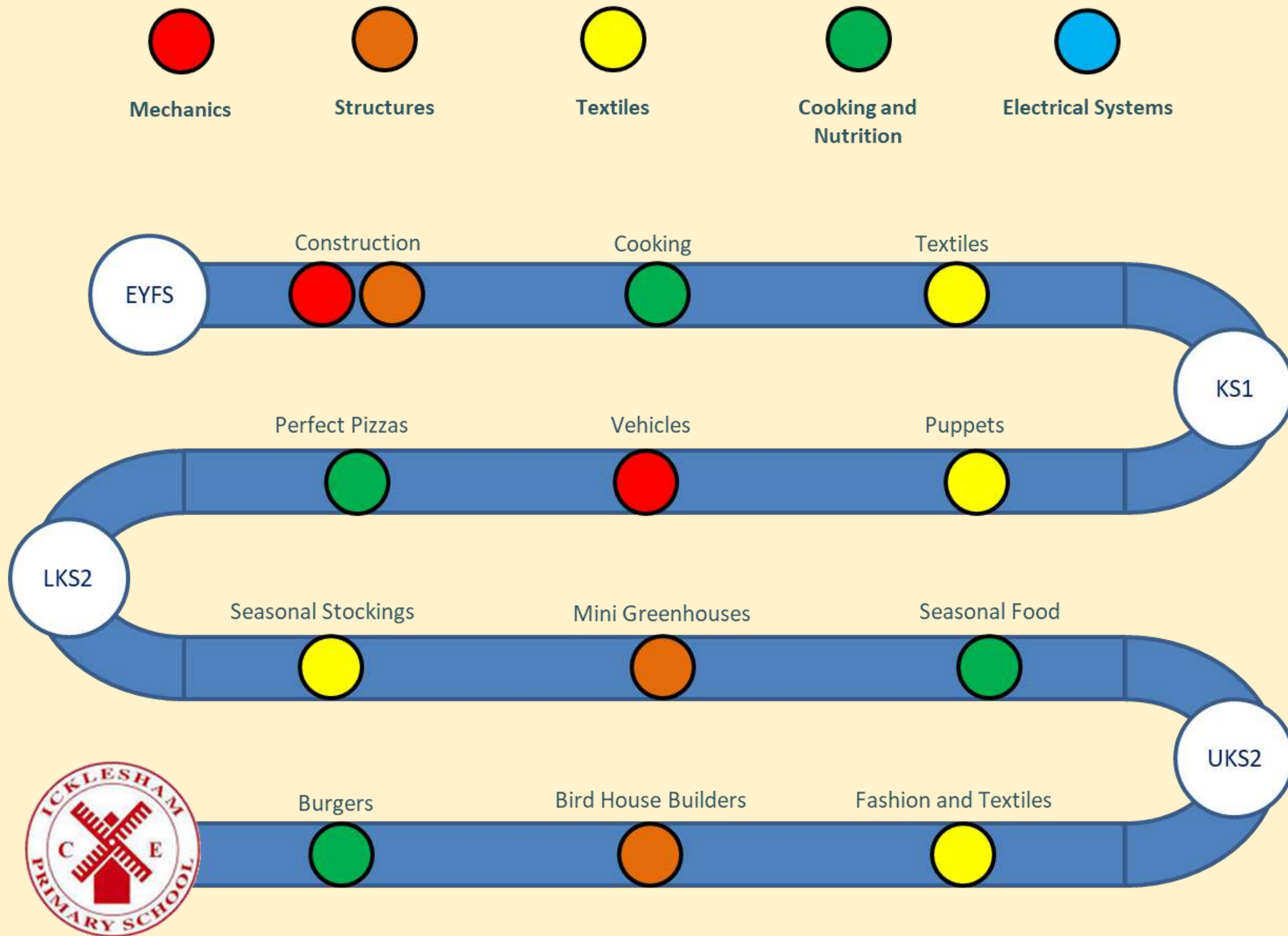
*“Design is not just what it looks like and feels like.
Design is how it works.”*

Steve Jobs



DT Curriculum Map

Cycle B



Objective
To explore a range of construction resources.

I wonder...
What shall we build?



Substantive Knowledge (Content)

- To know we can use a range of resources to create structures: natural resources, construction kits, large and small loose parts, treasure modelling: boxes (various sizes), cardboard tubes, ribbons, tissue paper, fabric, bottles, lids, corks
- To know we can combine resources to create structures
- To know we can join materials in different ways: PVA glue, pritt-stick, Sellotape, masking tape, staples.
- To know we can use a range of tools to help us to create structures, to join, combine and shape materials
- To know structures need to be stable
- To know safety needs to be considered when building with large loose parts and construction resources

Future Learning

KS1
Children will be learning how to make structures stronger.

LKS2
Children will be learning about using mechanisms as part of a product.

UKS2
Children will be learning about how bridges are made.

Skills

Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something

Concepts

Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting

Key vocabulary

construction	The work of building or making something
loose parts	Open-ended materials that can be combined and recombined in a variety of ways
treasure modelling	Creating structures from repurposed resources
den	A rough structure, usually built outside
building	A structure with walls and a roof
vehicle	A machine, usually with wheels and an engine, used for transporting people or goods, especially on land
crate	
plank	
gutter	
brick	
block	
log	
stick	
stone	
fabric	
tarpaulin	
join	
cut	
stick	
glue, pritt-stick, Sellotape, masking tape, staples, stapler	

Assessment points

- Explore** different construction resources
- Select** resources to fit the purpose
- Select** methods and tools to join resources
- Adapt** their work where necessary, **evaluating** as they work

EYFS Coverage

- It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. *Educational Programme for Expressive Arts and Design, Statutory Framework*

Minimum expectations, including for pupils with SEND

- Explore** different construction resources

High prior attainment and extension opportunities, including for pupils with SEND
Follow the full design, make, evaluate process.



Objective

To use some basic cooking skills

I wonder...

What could we cook?



Substantive Knowledge (Content)

- To know we can combine ingredients to make food.
- To know ingredients may change in different ways as we cook them.
- To know we can use different tools and methods to prepare ingredients for cooking.
- To know we may not like all of the food we make, but we won't know unless we taste it!
- To know it is fine to not like all the food we make and we don't all like the same things.
- To know some foods are healthier than others and we can eat more of these.
- To know some people are allergic to some ingredients.
- To know some tools and processes need us to be extra careful to stay safe
- To know we always wash our hands before we cook to make sure our hands are clean with no germs that could go in the food.

Future Learning

KS1

Children will be learning how to design a healthy pizza.

LKS2

Children will be designing a meal using seasonal food.

UKS2

Children will be learning how to make burgers.

Skills

Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something
Cooking and nutrition	The study of food and how it is used

Concepts

Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting

Key vocabulary

cook	To prepare food to be eaten
bake	To cook inside an oven
ingredient	A food used with others in the preparation of a dish
flour	Powder made from grain, especially wheat
sugar	A sweet substance used to make foods sweet
butter	A pale-yellow solid food containing a lot of fat
egg	
salt	
milk	
cheese	
vegetable	
fruit	
cake	
biscuit	
dough	
wash	
stir	
scoop	
slice	
chop	
mash	
grate	
spoon	
knife	
bowl	

Assessment points

- Use different tools and methods to cook food safely
- Try new foods
- Identify healthier and less healthy foods
- Know how to use key tools and processes safely
- Know to wash hands before cooking and understand the reason for this

EYFS Coverage

- It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. *Educational Programme for Expressive Arts and Design, Statutory Framework*
- Be confident to try new activities *Managing Self ELG*
- Manage their own basic hygiene and personal needs, including... understanding the importance of healthy food choices. *Managing Self ELG*

Minimum expectations, including for pupils with SEND

- Use different tools and methods to cook food safely
- Try new foods

High prior attainment and extension opportunities, including for pupils with SEND

Record simple recipes, step-by-step (e.g. with photographs and scribed by adult, to share with family).



Objective

To explore different ways of using textile resources

I wonder...

What could we do with this fabric?



Substantive Knowledge (Content)

- To know how to thread objects
- To know how to weave with textile resources
- To know fabric can be used in making products
- To know fabric can be joined to other fabrics and to other resources in different ways
- To know we can sew fabrics together
- To know we can sew designs onto fabrics
- To know sewing uses similar processes to threading and weaving.

Future Learning

KS1

Children will be learning to make puppets using different materials.

LKS2

Children will be learning how to make seasonal stockings.

UKS2

Children will be learning about fashion and textiles.

Skills	
Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something

Concepts	
Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement

Key vocabulary	
thread (verb)	To put e.g. string or thread through a narrow hole
bead	Small coloured piece of wood or plastic with a hole through it
weave	To make a textile piece by repeatedly passing strips of e.g. wool, fabric paper in and out through long threads
string	A piece of strong, thin rope
thread (noun)	A thin fibre
wool	Thick thread made from natural or artificial animal hair
ribbon	A long narrow strip of material
needle	A thin metal pin with a hole at one end, used for sewing
fabric	Cloth or material
sew	Use a needle and thread to join fabrics
stitch (noun)	A piece of thread sewn in cloth
staple [stapler]	Fasten using staples and stapler

Assessment points

- Explore different ways to work with textiles
- Select resources to fit the purpose
- Select methods and tools to join resources
- Adapt their work where necessary, evaluating as they work

EYFS Coverage

- It is important that children have regular opportunities to engage with the arts, enabling them to explore and play with a wide range of media and materials. *Educational Programme for Expressive Arts and Design, Statutory Framework*

Minimum expectations, including for pupils with SEND

- Explore different ways to work with textiles

High prior attainment and extension opportunities, including for pupils with SEND

What will you do to extend children’s learning



Objective

To be able to join materials to make a product

I wonder...

How do you make a puppet?



Substantive Knowledge (Content)

- To know a puppet is a moveable model that is typically moved by strings, rods or by hand
- To know puppets are used for entertainment
- To know different puppet types include rod, finger and glove
- To know how to join materials, including sewing
- To know what is important when designing against a criterion

Prior Learning

EYFS

Children have explored threading and weaving with a variety of resources. Children have explored working with fabric and other textile resources in a variety of ways, including sewing.

Future Learning

LKS2

Children will be learning how to make seasonal stockings using sewing to decorate.

UKS2

Children will be learning about fashion and textiles.

KS3

Children will be learning to develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations.

Skills

Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something

Concepts

Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting

Key vocabulary

puppet	Definition
join	To put things together
sewing	Using a needle and thread
stitch	A loop of thread
fabric	A material made of cloth
foam	
material	
stapler	

Assessment points

- **Know** what a puppet is
- **Know** how puppets are used
- **Know** some different puppet types
- **Know** some ways of joining materials together
- **Design** a puppet for a child
- **Make** an appealing puppet using different joining techniques
- **Evaluate** their product against the design criteria

National Curriculum Coverage

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Generate, develop, model and communicate their ideas through talking, drawing, templates and mock-ups
- Select from and use a range of tools and equipment to perform practical tasks
- Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Minimum expectations, including for pupils with SEND

Children to begin to join materials together. With support, children to begin comparing and contrasting materials in terms of suitability.

High prior attainment and extension opportunities, including for pupils with SEND

Children to think about, discuss and reason what would be important when designing and making a puppet for a toddler.



Objective
To be able to make a model with moving parts

I wonder...
How can we make a car using sticks?



Substantive Knowledge (Content)

- To know that a wheel is the round circle and the axle is the rod that goes right through the very centre of the wheel to help it move and stay in place
- To know that a chassis is the base frame of a vehicle
- To know vehicles use wheels, axles and chassis to move
- To know that axles and wheels need to be attached to the chassis
- To be able to design a vehicle with moving parts
- To be able to connect and join the moving parts to the chassis

Prior Learning

EYFS
Children have used a range of resources to create structures, including natural resources, construction kits, large and small loose parts and treasure modelling.

Future Learning

LKS2
Children will be learning about using mechanisms as part of a product.

UKS2
Children will be learning about different mechanisms that are used in Chinese inventions.

KS3
Children will be learning to understand how more advanced mechanical systems used in their products enable changes in movement and force.

Skills

Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something

Concepts

Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting

Key vocabulary

measure	To check the size of something
mark	Making a line or shape on something
cut	Some you can do with scissors
chassis	The main body of a vehicle
vehicle	A thing used for transporting people or objects
axle	
join	
wheel	
vehicle	
car	
connect	
moving part	

Assessment points

- Know** what a wheel and axle are
- Know** how wheels, axles and chassis work
- Know** why vehicles use wheels, axles and chassis
- Know** where axles need to go
- Know** how to design a vehicle with an axle and wheels
- Design** a vehicle with an axle and wheels
- Make** a vehicle with moving parts
- Evaluate** the effectiveness of the moving parts used with their model

National Curriculum Coverage

- Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology
- Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- Evaluate their ideas and products against design criteria
- Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Minimum expectations, including for pupils with SEND
Children to identify and describe axles and wheels. With support, children begin to measure, mark and cut in a practical sense.

High prior attainment and extension opportunities, including for pupils with SEND
Children to think about and discuss what other things use a wheel and an axle.



Objective
To be able to use food preparation skills

I wonder...
Where do pizzas come from?


Substantive Knowledge (Content)

- To know what a pizza is a dish of Italian origin, consisting of a flat round base of dough baked with a topping of tomatoes and cheese, typically with added meat, fish, or vegetables.
- To know which foods come from plants or animals
- To know food has to be grown, reared or caught
- To know a balanced diet includes the right amount of fruit and vegetables, carbohydrates, proteins, dairy and fats
- To know the names of a variety of different foods
- To know we can categorise foods into food groups of fruit and vegetables, carbohydrates, proteins, dairy and fats
- To be able to prepare food used to make pizzas
- To be able to make pizzas
- To know how to evaluate an existing product

Prior Learning

EYFS
Children have used basic cooking skills to prepare a variety of dishes.

Future Learning

LKS2
Children will be designing a meal using seasonal food.

UKS2
Children will be learning how to make burgers.

KS3
Children will be learning to cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet.

Skills

Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something
Cooking and nutrition	The study of food and how it is used

Concepts

Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting

Key vocabulary

balanced diet	Eating and drinking the right amount of foods
carbohydrates	The main source of energy for our bodies
dairy	Foods made from milk
fats	Give fuel to the body
protein	Builds and repairs parts of the body
allergy	
evaluate	
healthy/unhealthy	
pizza	
fruit	
vegetables	

Assessment points

- Know** where food comes from
- Know** what a balanced diet is
- Know** what different foods are
- Know** how to categorise foods
- Know** how to prepare foods
- Know** how pizzas are made
- Know** how to design a pizza
- Design** a pizza based on a brief
- Make** a pizza based on a design
- Evaluate** whether the pizza can be described as a healthy meal

National Curriculum Coverage

- Design purposeful, functional, appealing products for themselves and other users based on design criteria
- Select from and use a range of tools and equipment to perform practical tasks
- Evaluate their ideas and products against design criteria
- Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from

Minimum expectations, including for pupils with SEND
Children to identify healthy foods that can be added to their pizza. With support, children to evaluate their own pizza and compare it to others.

High prior attainment and extension opportunities, including for pupils with SEND
Children to think about and discuss where all the ingredients come from to make a ham and pineapple pizza.



Objective
To be able to use sewing skills

I wonder...
How can I decorate something by sewing?



Substantive Knowledge (Content)

- To know the Christmas stocking tradition comes from Saint Nicholas putting gold coins into stockings
- To know that a stocking is a large sock shaped fabric container
- To know that stockings can be made more appealing by adding decorations
- To be able to join fabrics used for making a stocking using thread
- To be able to use stitching
- To know that embroidery is the craft of decorating fabric or other materials using a needle to apply thread or yarn
- To know that appliqué is decorative work in which one piece of cloth is sewn or fixed onto another
- To be able to make a plan for a stocking
- To be able to make a stocking

Prior Learning

EYFS
Children have explored threading and weaving with a variety of resources. Children have explored working with fabric and other textile resources in a variety of ways, including sewing.

KS1
Children have learnt to make puppets using fabric and joining techniques.

Future Learning

UKS2
Children will be learning about fashion and textiles.

KS3
Children will be learning to develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations.

Skills	
Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something

Concepts	
Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting

Key vocabulary	
stocking	A decorative pouch shaped like a large sock that is used for holding gifts at Christmas
sewing	Using a needle and thread
stitching	One movement of a threaded needle through cloth or other material being sewn
embroidery	To make or decorate with needlework
appliqué	A cut-out decoration fastened to a larger piece of material
needle	
thread	
fabric	
decoration	
sequin	
ribbon	
button	

Assessment points

- Know** where the Christmas stocking comes from
- Know** what an appealing stocking looks like
- Know** how to join fabrics using stitching
- Know** what embroidery and appliqué are
- Know** how to make a plan for a stocking
- Design** a plan for a decorative stocking
- Make** a decorative stocking
- Evaluate** whether the stocking can be used effectively

National Curriculum Coverage

- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- Select from and use a wider range of tools and equipment to perform practical tasks
- Select from and use a wider range of materials and components
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures

Minimum expectations, including for pupils with SEND
Children to design a plan for a stocking. With support, children can cut and join fabrics together.

High prior attainment and extension opportunities, including for pupils with SEND
Children to think about, discuss and reason if everybody would like to have the same stocking.



Objective
To be able to design and make a product with a stable structure

I wonder...
How can I make a greenhouse?



Substantive Knowledge (Content)

- To know that a greenhouse is a building with glass walls and a glass roof
- To know we have greenhouses to grow plants
- To know that gable construction, with straight walls and sloping roofs that create a triangular gable on either end of the structure are good for greenhouse construction
- To know that metal and wood are good materials for making a greenhouse frame
- To know why these materials are suitable
- To be able to design a mini greenhouse
- To be able to amend a design
- To be able to make a mini greenhouse
- To know how effective their mini greenhouse is

Prior Learning

EYFS
Children have used a range of resources to create structures, including natural resources, construction kits, large and small loose parts and treasure modelling.

KS1
Children have learnt about how structures can be made stronger.

Future Learning

UKS2
Children will be learning how to make birdhouses.

KS3
Children will be learning to identify and solve their own design problems and understand how to reformulate problems given to them.

Skills

Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something

Concepts

Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting

Key vocabulary

greenhouse	A building used to grow plants
structure	An object made of different parts
frame	A flat container to hold something
collapse	To fall down or fall to pieces
plants	Living things that grow from soil
lolly sticks	
dowelling	
card	
pipe cleaners	
bubble wrap	
cling film	
plastic	
tape	
clay	
glue	
string	

Assessment points

- Know** what a greenhouse is
- Know** why we have greenhouses
- Know** how to make a stable structure
- Know** which materials are suitable for making a greenhouse
- Know** how to design a mini greenhouse
- Design** a mini greenhouse
- Make** a mini greenhouse
- Evaluate** the effectiveness of their mini greenhouse

National Curriculum Coverage

- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures

Minimum expectations, including for pupils with SEND
Children to identify materials that are good for making a greenhouse. With support, children can make a mini greenhouse.

High prior attainment and extension opportunities, including for pupils with SEND
Children to think about, discuss and reason if a mini greenhouse will be as effective as a full-sized greenhouse.



Objective
To understand what seasonality means

I wonder...
What is a good summer dish?


Substantive Knowledge (Content)

- To know seasonality means foods grown at different times of the year
- To know some British ingredients include plums and peaches
- To know when some British ingredients are available
- To know how seasonal fruits grow in Britain
- To know that vegetables form an important part of a healthy diet
- To know that seasonally produced meat can form part of a healthy diet
- To know that fish are caught, reared, processed and used in meals

Prior Learning

EYFS
Children have used basic cooking skills to prepare a variety of dishes.

KS1
Children have learnt what a balanced diet is.

Future Learning

UKS2
Children will be learning how to make burgers.

KS3
Children will be learning to cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet.

Skills

Technical knowledge	Understanding how things work
Evaluating	To study carefully and judge something
Cooking and nutrition	The study of food and how it is used

Concepts

Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting

Key vocabulary

seasonal	Fruit and vegetables that are ripe and ready in a particular season
ingredient	A food used with others in the preparation of a dish
climate	The weather found in a certain place over a long period of time
nutrients	Important substances you get from food that help your body survive and grow
healthy	Being strong and well
caught	
reared	
processed	
prepare	
diet	
fruit	
vegetables	
meat	
fish	

Assessment points

- Know** what seasonality means
- Know** what some British ingredients are
- Know** when some British ingredients are available
- Know** how seasonal fruits are grown in Britain
- Know** why vegetables form an important part of a healthy diet
- Know** how seasonally produced meat can form part of a healthy diet
- Know** how fish are caught, reared, processed and used in meals
- Evaluate** if eating seasonal food is a good thing

National Curriculum Coverage

- Understand and apply the principles of a healthy and varied diet
- Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Minimum expectations, including for pupils with SEND
Children to identify seasonal British foods. With support, children to explain how seasonal foods are produced.

High prior attainment and extension opportunities. Including for pupils with SEND
Children to think about, discuss and reason if we should only eat seasonal foods.



Objective
To be able to make a product using fabrics

I wonder...
How can I make a bag?



Substantive Knowledge (Content)

- To know some fabrics are natural and some are synthetic
- To know how some natural and synthetic fabrics are produced
- To know the names of different materials including cotton
- To know the sequence for producing cotton cloth
- To know functional stitching is used to keep a product stable and decorative stitching is to make it look appealing
- To know why different sewing stitches are used
- To know fashion designers use pattern pieces as templates for cutting fabric
- To be able to design a product that is functional
- To know that a seam allowance is the area between the fabric edge and the stitching line on two pieces of material being sewn together
- To know how to thread a needle
- To know how to join fabrics using simple hand-sewing stitch

Prior Learning

EYFS
Children have explored threading and weaving with a variety of resources. Children have explored working with fabric and other textile resources in a variety of ways, including sewing.

KS1
Children have learnt to make puppets using fabric and joining techniques.

LKS2
Children have learnt to develop their sewing skills when making a season stocking.

Future Learning

KS3
Children will be learning to develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations.

Skills	
Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something
Concepts	
Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting
Key vocabulary	
cotton	A fiber, or hairlike material, that people use to make cloth and other goods
functional	Serving a purpose or able to serve the intended purpose
fashion designer	Someone who designs clothing
seam allowance	The area between the stitching and raw, cut edge of the fabric
stitching	One movement of a threaded needle through cloth or other material being sewn
fabric	
material	
needle	
thread	
pattern	
decorative	
natural fabric	
synthetic fabric	
features	
hem	
seam	
garment	

Assessment points

- Know** how some fabrics are produced
- Know** what some materials are called
- Know** the sequence for producing cotton cloth
- Know** the difference between functional and decorative stitching
- Know** why different sewing stitches are used
- Know** how fashion designers use pattern pieces
- Know** how to thread a needle
- Know** what seam allowance is
- Design** a bag using design criteria
- Make** a bag that is functional
- Evaluate** the finished bag compared to their design
- Evaluate** the quality of their finished bag

National Curriculum Coverage

- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- Select from and use a wider range of tools and equipment to perform practical tasks
- Select from and use a wider range of materials and components
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures

Minimum expectations, including for pupils with SEND
Children to know the difference between functional and decorative stitching. With support, children can thread a needle and use a sewing technique.

High prior attainment and extension opportunities, including for pupils with SEND
Children to think about, discuss and reason why fashion designers need to know about stitching.



Objective
To be able to design and make a product with a stable structure

I wonder...
Do bricks make the best houses?



Substantive Knowledge (Content)

- To know that a bird house is a box, typically made to resemble a house, provided for a bird to make its nest in
- To know we have bird houses to help birds thrive and survive
- To know that bird houses have sides, a roof and an entrance
- To know what materials are needed to make a bird house
- To know what tools are needed to make a bird house
- To be able to work with tools safely including saws and drills
- To be able to design a bird house
- To be able to make a bird house
- To be able to evaluate their bird house

Prior Learning

EYFS
Children have used a range of resources to create structures, including natural resources, construction kits, large and small loose parts and treasure modelling.

KS1
Children have learnt about how structures can be made stronger.

KS1
Children have learnt how to make a stable greenhouse.

Future Learning

KS3
Children will be learning to identify and solve their own design problems and understand how to reformulate problems given to them.

Skills

Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something

Concepts

Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting

Key vocabulary

bird house	A house built to home birds
attract	Having something brings others towards it
material	The substance used to make something
tools	Anything that is used to make a change to something else or to help do a job
safety	Anything that people do to protect themselves or others from harmful accidents
bird	
wood	
saw	
clamp	
drill	
measuring tape	
sandpaper	
glue gun	
sketch	
3D	
woodwork	

Assessment points

- Know** what a bird house is
- Know** why we have bird houses
- Know** what a bird houses look like
- Know** what materials are needed to make a bird house
- Know** what tools are needed to make a bird house
- Know** how to work with tools safely
- Know** how to design a bird house
- Design** a bird house
- Make** a bird house
- Evaluate** the bird house compared to their design
- Evaluate** the quality of their finished bird house

National Curriculum Coverage

- Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design
- Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures

Minimum expectations, including for pupils with SEND
Children to design a birdhouse. With support, children to make a birdhouse by measuring, marking, cutting and joining materials.

High prior attainment and extension opportunities, including for pupils with SEND
Children to think about, discuss and reason how the skills they have learnt can help in the future.



Objective
To be able to use food preparation skills

I wonder...
What is the ultimate burger?



Substantive Knowledge (Content)

- To know there are different types of burgers including beef, chicken and meat-free
- To know that nutritional facts break down the amount of calories, carbs, fat, fibre, protein, and vitamins per serving of the food
- To know that nutritional facts are important to understand what you are eating and to make healthy choices
- To know how to prepare, make and cook a patty
- To know what other ingredients we can add to a burger
- To know the names of different burger buns and which are best to use
- To be able to design a burger
- To be able to make a burger
- To be able to evaluate their burger

Prior Learning

EYFS
Children have used basic cooking skills to prepare a variety of dishes.

KS1
Children have learnt what a balanced diet is.

LKS2
Children have learnt about seasonal foods.

Future Learning

KS3
Children will be learning to cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet.

Skills

Technical knowledge	Understanding how things work
Designing	A plan to make something
Making	To create or produce something
Evaluating	To study carefully and judge something
Cooking and nutrition	The study of food and how it is used

Concepts

Responsibility	working safely, how design can solve problems, choosing the right materials, responsibilities to customers to ensure quality / reliable products, healthy eating, quality ingredients
Similarity and difference	making comparisons, noting differences and drawing conclusions
Cause and consequence	identifying how things work, how an action can cause change/movement
Significance	significant designers and designs, real world examples of effective and successful products
Written and oral expression	Using terminology, evaluating, creating accurate designs, labelling and annotating, explaining processes, presenting

Key vocabulary

burger	
patty	
recipe	
ingredients	
nutritional facts	
cooking	
cheese	
meat	
sauce	
lettuce	
tomato	
vegetarian	
vegan	
chicken	
information	
tables	
method	
equipment	
utensil	
food hygiene	
preparation	

Assessment points

- Know** what different types of burgers there are
- Know** what nutritional facts are
- Know** why nutritional facts are important
- Know** how to prepare, make and cook a patty
- Know** what other ingredients can be added to a burger
- Know** which buns are the best to use
- Know** how to design a burger
- Know** about food hygiene and preparation skills and techniques
- Design** a burger
- Make** a burger
- Evaluate** the success of their burger

National Curriculum Coverage

- Understand and apply the principles of a healthy and varied diet
- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed
- Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Minimum expectations, including for pupils with SEND
Children to design a burger to be made. With support, children can prepare, make and cook a patty.

High prior attainment and extension opportunities, including for pupils with SEND
Children to think about and discuss what the ultimate burger is.

