Pleasant Street Primary School – DT Progression and Coverage

Design and Technology links - Nursery, Reception

EYFS Statutory Educational Programme: The development of children's artistic and cultural awareness supports their imagination and creativity. 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. The quality and variety of what children see, hear and participate in is crucial for developing their understanding, self-expression, vocabulary and ability to communicate through the arts. The frequency, repetition and depth of their experiences are fundamental to their progress in interpreting and appreciating what they hear, respond to and observe.

Taken from Non-Statutory guidance Development Matters **3- & 4-Year Olds will be learning to:**	***Taken from Non-Statutory guidance Development Matters*** **Reception will be learning to:**	**Early Learning Goal at the end of Reception children at the expected level of development will:**
- Explore different materials freely, to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures.	- Explore, use and refine a variety of artistic effects to express their ideas and feelings. - Return to and build on their previous learning, refining ideas and developing their ability to represent them. - Create collaboratively, sharing ideas, resources and skills.	**Creating with Materials ELG:** - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories.

- Experience working with paper and card to make simple flags and hinges
- Experience simple cutting, shaping and joining skills
- Explore and use different fabrics
- Cut and join fabrics with simple techniques
- Think about the user and purpose of products
- Have experience of common fruit and vegetables, undertaking sensory activities
- Experience cutting soft fruit and vegetables using appropriate utensils
- Assemble vehicles with moving wheels using construction kits
- Explore moving vehicles through play
- Experience using construction kits to build

Pleasant Street Primary School – DT Progression and Coverage

Design and Technology, Key Stage 1, Year 1

Prior Knowledge

- Explore different materials freely, to develop their ideas about how to use them and what to make. Develop their own ideas and then decide which materials to use to express them. Join different materials and explore different textures.
- Explore, use and refine a variety of artistic effects to express their ideas and feelings.
- Return to and build on their previous learning, refining ideas and developing their ability to represent them.
- Create collaboratively, sharing ideas, resources and skills.
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- Share their creations, explaining the process they have used;
- Make use of props and materials when role playing characters in narratives and stories.

- Experience working with paper and card to make simple flags and hinges
- Experience of different methods of joining card and paper
- Experience of using basic tools (scissors, hole punches) with construction materials
- Experience simple cutting, shaping and joining skills
- Explore and use different fabrics
- Cut and join fabrics with simple techniques
- Think about the user and purpose of products
- Have experience of common fruit and vegetables, undertaking sensory activities
- Experience cutting soft fruit and vegetables using appropriate utensils
- Assemble vehicles with moving wheels using construction kits
- Explore moving vehicles through play
- Have experience of designing, making and evaluating products for a specifies user and purpose
- Experience using construction kits to build

Mechanisms	Structures	Textiles	Cooking &Nutrition
Explore and use sliders and levers. Understand that different mechanisms produce different types of movement. Know and use technical vocabulary relevant to the project Use simple mechanisms in my product e.g. sliders and levers Measure, mark out and use a template to create shapes by cutting along straight lines, curved lines and shapes.		Understand how simple 3-D textile products are made, using a template to create two identical shapes. Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons. Know and use technical vocabulary relevant to the project. Measure, mark out and use a template to create shapes by cutting along straight lines, curved lines and shapes. Decorate textiles using a range of materials and components, including textiles Join fabrics using staples, a **running stitch/whip stitch** and other methods Know that a 3-D textiles product can be assembled from two identical fabric shapes.	Understand where a range of fruit comes from. Recognise and name a range of basic cooking skills with support. For example: • Mix (with increasing thoroughness) • Measure (with measuring spoons) • Snip with kitchen scissors • Cut (soft foods) using: - Fork secure - Claw grip -Bridge hold (and mini bridge) Get ready to cook with help and reminders. Taste different foods. Know all food comes from plants and animals and can give some basic examples. Use the right tools to chop food. Name and sort foods into the five groups in the Eatwell Guide that everyone should eat at least five portions of fruit and vegetables every day

Pleasant Street Primary School – DT Progression and Coverage

Design and Technology, Key Stage 1, Year 2

Prior Knowledge

Use a range of materials and components, including construction materials and kits. Assembled vehicles with moving vehicles through play. (EYFS) Gained some experience of designing, making and evaluating products for a specified user and purpose. (EYFS) Measure, mark out, cut	Know how to make freestanding structures stronger, stiffer and more stable Know and use technical vocabulary relevant to the product Use a range of materials and components including construction materials and kits Measure, mark out, cut and shape materials and components		Understand where a range of fruit and vegetables come from e.g. farmed or grown at home Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of the *Eatwell Plate* Know and use technical and sensory vocabulary relevant to the project. Recognise and name a range <u>of basic cooking skills with support.</u> For example: • Peel (with a peeler) • Mix (with increasing thoroughness) • Measure (with measuring spoons)
Mechanisms	**Structures**	**Textiles**	**Cooking & Nutrition**
Explore and use wheels, axles and axle holders. Distinguish between fixed and freely moving axles. Know and use technical vocabulary relevant to the project. Use a range of materials and components, including construction materials and kits. Measure, mark out, cut and shape materials and components. Assemble, join and combine materials and components. Use simple mechanisms in my product e.g. axles and wheels Cut wood and dowelling independently when supervised following procedures for safety	Know how to make freestanding structures stronger, stiffer and more stable. Know and use technical vocabulary relevant to the project. Know how freestanding structures can be made stronger, stiffer and more stable. Use a range of materials and components, including construction materials and kits. Measure, mark out, cut and shape materials and components. Assemble, join and combine materials and components.		Understand where a range of fruit and vegetables come from e.g. farmed or grown at home. Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of *The Eatwell plate*. Know and use technical and sensory vocabulary relevant to the project. Recognise and name a range <u>of basic cooking skills with support</u>. For example: • Peel (with a peeler) • Mix (with increasing thoroughness) • Measure (with measuring spoons) • Snip with kitchen scissors • Grate (soft foods) • Juice (juicer) • Cut (soft foods) using a fork secure, claw grip or mini bridge and bridge hold Taste foods and say whether they liked them or not. Know we need a variety and balance of food and drinks to stay healthy as depicted in the Eatwell guide. Give examples of foods which come from shops and markets and those that can be grown at home. Give some examples of foods which should be kept in the fridge, cupboard or freezer Sort a number of foods into plant or animal groups

Pleasant Street Primary School – DT Progression and Coverage

Design and Technology, Key Stage 2, Year 3

Prior Knowledge

Use a range of materials and components, including construction materials and kits.

Assembled vehicles with moving vehicles through play. (EYFS)

Gained some experience of designing, making and evaluating products for a specified user and purpose. (EYFS)

Measure, mark out, cut

Understand how simple 3-D textile products are made, using a template to create two identical shapes.

Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling.

Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons.

Know and use technical vocabulary relevant to the project.

Measure, mark out and use a template to create shapes by cutting along straight lines, curved lines and shapes.

Decorate textiles using a range of materials and components, including textiles

Join fabrics using staples, a **running stitch/whip stitch** and other methods

Know that a 3-D textiles product can be assembled from two identical fabric shapes.

Understand where a range of fruit and vegetables come from e.g. farmed or grown at home.

Understand and use basic principles of a healthy and varied diet to prepare dishes, including how fruit and vegetables are part of *The Eatwell plate*.

Know and use technical and sensory vocabulary relevant to the project.

Recognise and name a range <u>of basic cooking skills with support</u>.
For example:

- Peel (with a peeler)
- Mix (with increasing thoroughness)
- Measure (with measuring spoons)
- Snip with kitchen scissors
- Grate (soft foods)
- Juice (juicer)
- Cut (soft foods) using a fork secure, claw grip or mini bridge and bridge hold

Taste foods and say whether they liked them or not.

Know we need a variety and balance of food and drinks to stay healthy as depicted in the Eatwell guide.

Give examples of foods which come from shops and markets and those that can be grown at home.

Give some examples of foods which should be kept in the fridge, cupboard or freezer

Sort a number of foods into plant or animal groups

Mechanisms

Understand and use pneumatic mechanisms.

Know and use technical vocabulary relevant to the project.

Understand and use lever and linkage mechanisms.

Distinguish between fixed and loose pivots.

Know and use technical vocabulary relevant to the project.

Use simple mechanical systems in my products e.g. gears, levers and cams.
Discuss and describe well-known designers, inventors and their work.

Structures

Textiles

Know how to strengthen, stiffen and reinforce existing fabrics.

Understand how to securely join two pieces of fabric together.

Understand the need for patterns and seam allowances.

Know and use technical vocabulary relevant to the project.

Join fabrics using a range of stitches e.g. back stitch, chain stitch.

Choose an appropriate joining technique to add decorations to fabric.
Know that a single fabric shape can be used to make a 3D textiles product.

Use given sewing patterns or printing blocks to add detail.

Consider a seam allowance.

Discuss and describe well-known designers, inventors and their work.

Cooking & Nutrition

Know how to use appropriate equipment and utensils to prepare and combine food.

Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught.

Know and use relevant technical and sensory vocabulary appropriately.

Name and use a range of cooking skills with <u>increasing competence:</u>

- Peel (with a peeler)
- Mix (thoroughly)
- Spread (evenly over food)
- Measure (with measuring jug and scales)
- Snip with kitchen scissors (with great control)
- Grate (firmer foods like carrots)
- Spoon ingredients (using two spoons)
- Arrange (attractively)
- Cut (soft foods progressing to firmer foods) using:
  - Fork secure
  - Claw grip
  - Bridge hold (and mini bridge)

Understand the sections of the EatWell plate and why they differ in size.

Name an <u>increasing range</u> of cooking equipment and explain what it does.

Name foods which grow above ground (on bushes, trees and vines) and those which grow below ground.

Get ready to cook and remember what I need to do.

Recognise and name an <u>increasing range</u> of ingredients.

Understand that people around the world choose and combine different foods and drinks to make meals and snacks.

Pleasant Street Primary School – DT Progression and Coverage

Design and Technology, Key Stage 2, Year 4

Prior Knowledge

	Know how to make freestanding structures stronger, stiffer and more stable Know and use technical vocabulary relevant to the product Use a range of materials and components including construction materials and kits Measure, mark out, cut and shape materials and components		Know how to use appropriate equipment and utensils to prepare and combine food. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. Know and use relevant technical and sensory vocabulary appropriately. Name and use a range of cooking skills with <u>increasing competence:</u> • Peel (with a peeler) • Mix (thoroughly) • Spread (evenly over food) • Measure (with measuring jug and scales) • Snip with kitchen scissors (with great control) • Grate (firmer foods like carrots) • Spoon ingredients (using two spoons) • Arrange (attractively) • Cut (soft foods progressing to firmer foods) using: - Fork secure - Claw grip - Bridge hold (and mini bridge) Understand the sections of the EatWell plate and why they differ in size. Name an <u>increasing range</u> of cooking equipment and explain what it does. Name foods which grow above ground (on bushes, trees and vines) and those which grow below ground. Get ready to cook and remember what I need to do. Recognise and name an <u>increasing range</u> of ingredients. Understand that people around the world choose and combine different foods and drinks to make meals and snacks.	Constructed a simple series electrical circuit in science, using bulbs, switches and buzzers. Cut and joined a variety of construction materials, such as wood, card, plastic, reclaimed materials and glue.
Mechanisms	**Structures**	**Textiles**	**Cooking & Nutrition**	**Electrical Systems**
	Develop and use knowledge of how to construct strong, stiff shell structures. Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. Know and use technical vocabulary relevant to the project. Create a shell structure and use diagonal struts to strengthen it. Cut slots. Measure, mark out, cut and shape materials and components with some accuracy Know how to make strong, stiff shell structures Follow procedures for safety Discuss and describe well-known designers, inventors, engineers, chefs and their work.		Know how to use appropriate equipment and utensils to prepare and combine food. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. Know and use relevant technical and sensory vocabulary appropriately. Name and use a range of cooking skills with <u>increasing competence</u>. For example: • Peel (with a peeler) • Mix (thoroughly) • Spread (evenly over food) • Measure (with measuring jug and scales) • Snip with kitchen scissors (with great control) • Grate (firmer foods like carrots) • Shape (with greater precision) • Cut out with cutters • Spoon ingredients (using two spoons) • Arrange (attractively) • Cut (soft foods progressing to firmer foods) using: - Fork secure - Claw grip - Bridge hold (and mini bridge) Understand that food is processed into different ingredients (wheat to Bread). Understand the need to eat foods in the proportions shown by the eatwell guide as well as eating a variety of foods from the largest food groups to be healthy. Know that there are storage instructions on most food packaging and can identify and use these. Name the sources of common ingredients found in different dishes and meals. Discuss and describe well-known chefs and their work.	Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. Apply their understanding of computing to program and control their products. Know and use technical vocabulary relevant to the project.

Pleasant Street Primary School – DT Progression and Coverage

Design and Technology, Key Stage 2, Year 5

Prior Knowledge

Understand and use pneumatic mechanisms. Know and use technical vocabulary relevant to the project. Understand and use lever and linkage mechanisms. Distinguish between fixed and loose pivots. Know and use technical vocabulary relevant to the project. Use simple mechanical systems in my products e.g. gears, levers and cams. Discuss and describe well-known designers, inventors and their work.		Understand how simple 3-D textile products are made, using a template to create two identical shapes. Understand how to join fabrics using different techniques e.g. running stitch, glue, over stitch, stapling. Explore different finishing techniques e.g. using painting, fabric crayons, stitching, sequins, buttons and ribbons. Know and use technical vocabulary relevant to the project. Measure, mark out and use a template to create shapes by cutting along straight lines, curved lines and shapes. Decorate textiles using a range of materials and components, including textiles Join fabrics using staples, a **running stitch/whip stitch** and other methods Know that a 3-D textiles product can be assembled from two identical fabric shapes.	Know how to use appropriate equipment and utensils to prepare and combine food. Know about a range of fresh and processed ingredients appropriate for their product, and whether they are grown, reared or caught. Know and use relevant technical and sensory vocabulary appropriately. Name and use a range of cooking skills with <u>increasing competence</u>. For example: • Peel (with a peeler) • Mix (thoroughly) • Spread (evenly over food) • Measure (with measuring jug and scales) • Snip with kitchen scissors (with great control) • Grate (firmer foods like carrots) • Shape (with greater precision) • Cut out with cutters • Spoon ingredients (using two spoons) • Arrange (attractively) • Cut (soft foods progressing to firmer foods) using: - Fork secure - Claw grip - Bridge hold (and mini bridge) Understand that food is processed into different ingredients (wheat to Bread). Understand the need to eat foods in the proportions shown by the eatwell guide as well as eating a variety of foods from the largest food groups to be healthy. Know that there are storage instructions on most food packaging and can identify and use these. Name the sources of common ingredients found in different dishes and meals. Discuss and describe well-known chefs and their work.	
Mechanisms	**Structures**	**Textiles**	**Cooking & Nutrition**	**Electrical Systems**
Understand that mechanical and electrical systems have an input, process and an output. Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. Know and use technical vocabulary relevant to the project. Use complex mechanical system in products e.g. pulleys and linkages. Use a glue gun with close supervision.		A 3-D textile product can be made from a combination of accurately made pattern pieces, fabric shapes and different fabrics. Fabrics can be strengthened, stiffened and reinforced where appropriate. Use applique to decorate by gluing and stitching. Select the most appropriate way to join or secure materials in my design. Create a simple sewing pattern. Know that a 3D textiles product can be made from a combination of fabric shapes Demonstrate increased accuracy of skills Use correct technical vocabulary	Know how to use utensils and equipment including heat sources to prepare and cook food. Understand about seasonality in relation to food products and the source of different food products. Know and use relevant technical and sensory vocabulary. • Peel (to create ribbons, e.g. carrots, courgettes) • Mix (fold ingredients together e.g. flour into a mixture) • Measure accurately (using digital scales, analogue scales, measuring jug) • Grate (with greater control and skill, e.g. zest from a lemon) • Cut out with cutters (positioning carefully to avoid wastage) • Cut (firm foods) using: - Fork secure - Claw grip - Bridge hold (and mini bridge) Understand that some foods are seasonal and can give examples. Know that there are a <u>vast range</u> of ingredients used <u>around the world</u> and can name a variety. Recognise food (and some drinks) provide energy for the body so we can be active and stay healthy. Describe an <u>extended range</u> of cooking equipment, explain its function and how it is designed for its purpose. Get ready to cook, talk about and demonstrate what I should do during and after cooking. Say which part of a plant or animal different foods come from.	

Pleasant Street Primary School – DT Progression and Coverage

Design and Technology, Key Stage 2, Year 6

Prior Knowledge

Understand that mechanical and electrical systems have an input, process and an output. Understand how gears and pulleys can be used to speed up, slow down or change the direction of movement. Know and use technical vocabulary relevant to the project. Use complex mechanical system in products e.g. pulleys and linkages. Use a glue gun with close supervision.	Develop and use knowledge of how to construct strong, stiff shell structures. Develop and use knowledge of nets of cubes and cuboids and, where appropriate, more complex 3D shapes. Know and use technical vocabulary relevant to the project. Create a shell structure and use diagonal struts to strengthen it. Cut slots. Measure, mark out, cut and shape materials and components with some accuracy Know how to make strong, stiff shell structures Follow procedures for safety Discuss and describe well-known designers, inventors, engineers, chefs and their work.		Know how to use utensils and equipment including heat sources to prepare and cook food. Understand about seasonality in relation to food products and the source of different food products. Know and use relevant technical and sensory vocabulary. • Peel (to create ribbons, e.g. carrots, courgettes) • Mix (fold ingredients together e.g. flour into a mixture) • Measure accurately (using digital scales, analogue scales, measuring jug) • Grate (with greater control and skill, e.g. zest from a lemon) • Cut out with cutters (positioning carefully to avoid wastage) • Cut (firm foods) using: - Fork secure - Claw grip - Bridge hold (and mini bridge) Understand that some foods are seasonal and can give examples. Know that there are a vast range of ingredients used around the world and can name a variety. Recognise food (and some drinks) provide energy for the body so we can be active and stay healthy. Describe an extended range of cooking equipment, explain its function and how it is designed for its purpose. Get ready to cook, talk about and demonstrate what I should do during and after cooking. Say which part of a plant or animal different foods come from.	Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. Apply their understanding of computing to program and control their products. Know and use technical vocabulary relevant to the project.

Mechanisms	Structures	Textiles	Cooking & Nutrition	Electrical Systems
Understand that mechanical systems have an input, process and an output. Understand how cams can be used to produce different types of movement and change the direction of movement. Know and use technical vocabulary relevant to the project.	Understand how to strengthen, stiffen and reinforce 3-D frameworks. Know and use technical vocabulary relevant to the project.		Know how to use utensils and equipment including heat sources to prepare and cook food. Understand about seasonality in relation to food products and the source of different food products. Know and use relevant technical and sensory vocabulary. Name and use a range of cooking skills with confidence and accuracy to prepare increasingly challenging ingredients. For example: • Peel (to create ribbons, e.g. carrots, courgettes) • Mix (fold ingredients together e.g. flour into a mixture) • Measure accurately (using digital scales, analogue scales, measuring jug) • Grate (with greater control and skill, e.g. zest from a lemon) • Cut out with cutters (positioning carefully to avoid wastage) • Cut (firm foods) using: - Fork secure - Claw grip - Bridge hold (and mini bridge) Describe and demonstrate how to grow some foods. Recognise nutrients, vitamins, minerals and water are needed for health and are acquired by eating a variety of foods. Aware that there are date marks (‘use by’ and ‘best before’) on foods, can identify and use these. Find out about the ingredients used in different dishes, where ingredients come from and how they are produced/processed.	Understand and use electrical systems in their products. Understand the use of computer control systems in products. Apply their understanding of computing to program, monitor and control their products. Know and use technical vocabulary relevant to the project.