



Curriculum Progression Document

# **Design Technology**

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## Curriculum Intent

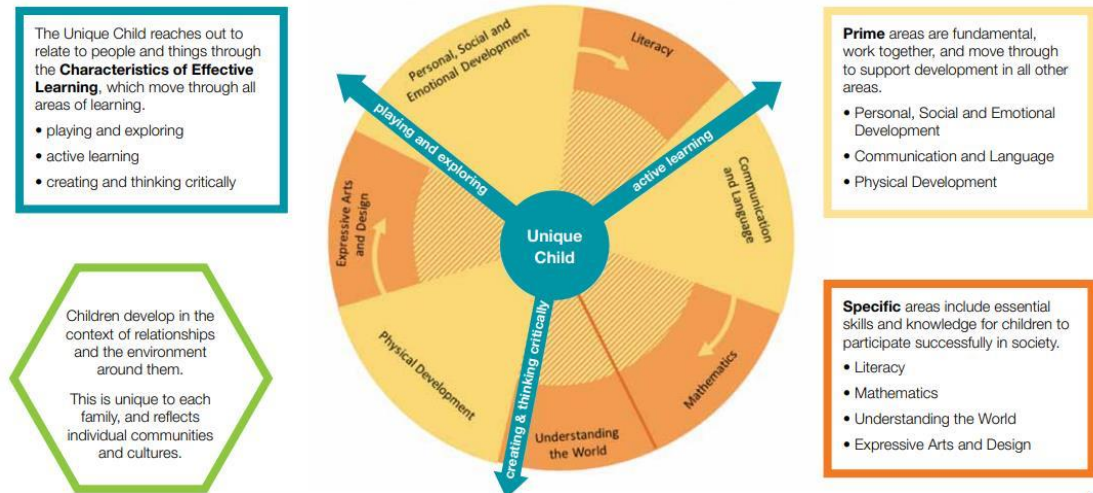
**Intent** - It is the intent of St. Bartholomew's First School for a high quality Design and Technology curriculum to be taught across all year groups, through well planned and resourced projects and experiences. Each year, all children will be taught at least one Design and Technology topic per term; one of which will be related to Cooking and Nutrition. Design and Technology projects will often be made cross curricular - linking to other subjects taught.

### **This vision is achieved by:**

- Following the National Curriculum through the use of Design and Technology Association's 'Projects on a Page' documents.
- Ensuring every Design and Technology project will clearly follow the design process: research, design, make and evaluate.
- Strongly embedding our key skills. It is an inspiring, rigorous and practical subject, requiring collaboration, problem solving, self-management, communication, creative thinking and evaluation.
- Designing and making products that solve real and relevant problems within a variety of contexts.

# Design Technology in the Early Years Foundation Stage

Each area of the EYFS curriculum has an **Early Learning Goal**, which is the standard that a child is expected to achieve by the end of their reception year. The ELG (Early Learning Goals) covers all of the 7 areas of learning as specified in the Early Years Foundation Stage Curriculum.



The following link to the teaching and learning of Design Technology in our EYFS:

## ELG 16: Expressive arts and design: Exploring and using media and materials

Children at the expected level of development will:

- Children sing songs, make music and dance, and experiment with ways of changing them.
- Children safely use and explore a variety of materials, tools and techniques.
- They experiment with colour, design, texture, form and function.

**EELG 16: Expressive arts and design: Being imaginative**

Children at the expected level of development will:

- Children use what they have learnt about media and materials in original ways.
- They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.

KS1 YEAR C (2022-23)	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2	Early Learning Goal
THEME	Over the hills and far away	Lest we forget	From Crewkerne to the rainforest	Sweet like Chocolate	Reduce, Reuse, Recycle	Pyramids, Mummies and Tombs	
<b>Creating with Materials</b>	<p>Drawing To draw portraits of themselves.</p> <p>To name colours</p> <p>To experiment with mixing colours</p> <p>To create simple representations of people and objects</p> <p>To draw and colour with pencils and crayons</p> <p>To role play using given</p>	<p>Textiles To use a needle and thread to make a Poppy.</p> <p>To use colours for a particular purpose</p> <p>To share their creations</p> <p>To explore different techniques for joining materials (Glue Stick, PVA)</p> <p>To know how to work safely and hygienically</p>	<p>Painting and Printing To use stylofoam to make a leaf print.</p> <p>To experiment with different mark making tools such as art pencils, pastels, chalk</p> <p>To explore different techniques for joining materials (Glue Stick, PVA, Masking Tape, Tape)</p> <p>To know how to work safely and hygienically</p>	<p>Food To follow a simple recipe to make a sweet treat.</p> <p>To use natural objects to make a piece of art (Andy Goldsworthy)</p> <p>To share creations and talk about the process</p> <p>To explore different techniques for</p>	<p>Sculpture To use recycling to make plant pots and sculptures for the outside space.</p> <p>To know which prime colours you mix together to make secondary colours</p> <p>To plan what they are going to make (cooking, wood work, construction, junk modelling)</p>	<p>Mechanisms To make a sand buggy.</p> <p>To know some similarities and differences between materials</p> <p>To learn about and compare artists ?????????</p> <p>To explore, use and refine a variety of artistic effects to express their ideas and feeling</p> <p>To share</p>	<p>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.</p>

	<p>props and costumes</p> <p>To explore different techniques for joining materials (Glue Stick)</p> <p>To know how to work safely and hygienically</p> <p>To use non-statutory measures (spoons, cups)</p> <p>To use some cooking techniques (spreading, cutting) – Sandwiches</p> <p>To use different construction materials</p>	<p>To use non-statutory measures (spoons, cups)</p> <p>To use some cooking techniques (spreading, cutting, threading, coring) – Sandwiches, Fruit Kebab</p>	<p>To use non-statutory measures (spoons, cups)</p> <p>To use some cooking techniques (spreading, cutting, threading, coring, mixing) Sandwiches, Fruit Kebab, Biscuits</p> <p>To use tools to cut and join wood</p> <p>To know the names of tools</p>	<p>joining materials (Glue Stick, PVA, Masking Tape, Split Pins)</p> <p>To make props and costumes for different role play scenarios</p> <p>To know how to work safely and hygienically</p> <p>To use non-statutory measures (spoons, cups)</p> <p>To use some cooking techniques (spreading, cutting, threading, coring, mixing, grating) Sandwiches,</p> <p>Fruit Kebab, Biscuits, Salads</p> <p>To use tools to cut and join wood using different nails and screws</p> <p>To know the names of tools</p>	<p>To draw more detailed pictures of people and objects</p> <p>To manipulate materials</p> <p>To create observational drawings</p> <p>To know how to work safely and hygienically</p> <p>To use non-statutory measures (spoons, cups)</p> <p>To use some cooking techniques (spreading, cutting, threading, coring, mixing, grating, adding flavours)</p> <p>Sandwiches, Fruit Kebab, Biscuits, Salads</p>	<p>creations, talk about process and evaluate their work</p> <p>To adapt work where necessary</p>	
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<p><b>Being Imaginative and Expressive</b></p>	To sing and perform nursery rhymes	To perform a song in the Christmas Play	To join in with whole school singing assemblies	To perform songs at the Easter Concert	To move in time to music	To listen to poems and create their own	<p>Invent, adapt and recount narratives and stories with peers and their teacher. Sing a range of well know nursery rhymes and songs. Perform songs, rhymes, poems and stories with others and (when appropriate) try to move in time with music.</p>
	To join in with whole school singing assemblies	To learn and perform a poem at the Christmas Concert	To create musical patterns using untuned instruments	To join in with whole school singing assemblies	To learn dance routines	To join in with whole school singing assemblies	
	To experiment with different instruments and their sounds	To join in with whole school singing assemblies	To begin to create costumes and resources for role play	To associate genres of music with characters and stories	To join in with whole school singing assemblies	To create own compositions using tuned instruments	
	To talk about whether the like or dislike a piece of music	To pitch match		To create costumes and resources for role play	To act out well know stories	To invent their won narratives, making costumes and resources	
	To create musical patterns using body percussion	To sing the melodic shape of familiar songs			To follow a musical pattern to play tuned instruments		
	To use costumes and resources to act out narratives	To begin to build up a repertoire of songs			To create narratives based around stores		
		To sing entire songs					
		To use costumes and resources to act out narratives					

# Design Technology and the National Curriculum: Key Stage One

Key stage 1 Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].

When designing and making, pupils should be taught to:

## Design

- ☐ 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, mock-ups and, where appropriate, information and communication technology

## Make

- ☐ select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- ☐ select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

## Evaluate

- ☐ explore and evaluate a range of existing products



- ☐ evaluate their ideas and products against design criteria

#### Technical knowledge

- ☐ build structures, exploring how they can be made stronger, stiffer and more stable
- ☐ explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

#### **Cooking and Nutrition**

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

#### Key stage 1

- use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from.

# Design Technology and the National Curriculum: Key Stage Two

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].

When designing and making, pupils should be taught to:

## Design

- 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

## Make

- 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

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

## Technical knowledge

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products.

### **Cooking and Nutrition**

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Pupils should be taught to:

Key stage 2

- 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.

# Whole School Programme of Study

Year C = 2022 - 2023

KS2 YEAR C (2022-23)_	AUTUMN 2_	SPRING 2_	SUMMER 2_
THEME_	Lest we forget _	Sweet like Chocolate_	Pyramids, Mummies and Tombs_
KS1	<i>Textiles</i> Design, make, Evaluate	<i>Food</i> Cooking and Nutrition	<i>Mechanisms</i> Design, make, Evaluate
KS2	<i>Textiles</i> Design, make, Evaluate	<i>Food</i> Cooking and Nutrition	<i>Mechanical Structures</i> Design, make, Evaluate

KS2 YEAR D (2023-24)_	AUTUMN 2_	SPRING 2_	SUMMER 2_
THEME_	Invaders and Raiders_	Crewkerne through the ages_	Going for gold
KS1	<i>Mechanisms</i> Design, make, Evaluate	<i>Food</i> Cooking and Nutrition	<i>Structures</i> Design, make, Evaluate
KS2	<i>Structures</i> Design, make, Evaluate	<i>Food</i> Cooking and Nutrition	<i>Electrical Systems</i> Design, make, Evaluate

KS2 YEAR A (2024-25)_	AUTUMN 2_	SPRING 2_	SUMMER 2_
THEME_	Battle, Blitz and Victory _	Heroes and Heroines _	On the March!
KS1	<i>Mechanisms</i> Design, make, Evaluate	<i>Food</i> Cooking and Nutrition	<i>Textiles</i> Design, make, Evaluate
KS2	<i>Textiles</i> Design, make, Evaluate	<i>Food</i> Cooking and Nutrition	<i>Mechanical Structures</i> Design, make, Evaluate

KS2 YEAR B (2025-26)_	AUTUMN 2_	SPRING 2_	SUMMER 2_
THEME_	Intrepid Explorers_	Fossil Hunting_	Local History Topic
KS1	<i>Mechanisms</i> Design, make, Evaluate	<i>Food</i> Cooking and Nutrition	<i>Structures</i> Design, make, Evaluate
KS2	<i>Structures</i> Design, make, Evaluate	<i>Food</i> Cooking and Nutrition	<i>Electrical Systems</i> Design, make, Evaluate

## Reasoning Behind our Design Technology Curriculum

STAGE	TOPIC	WE TEACH THIS BECAUSE ...	BUILD ON LEARNING ...	FUTURE LEARNING ...	LINKS TO ST BARTS SCHOOL LIFE ...
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STAGE	TOPIC	WE TEACH THIS BECAUSE ...	BUILD ON LEARNING ...	FUTURE LEARNING ...	LINKS TO ST BARTS SCHOOL LIFE ...
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# Design Technology Vocabulary

## EYFS Design and Technology and Skills Overview

Knowledge	Vocabulary	Skills
Know that different media can be combined to create new effects.	Paper Card Wood Fold Glue	Manipulates material to achieve a planned effect. Constructs with a purpose in mind, using a variety of resources. Uses simple tools and techniques competently and appropriately. Selects appropriate resources and adapts work where necessary. Selects tools and techniques needed to shape, assemble and join materials they are using.  Chopping with a blunt knife Mashing

	Cooking and Nutrition Preparing fruit and vegetables	Textiles Templates and joining	Mechanisms Sliders and Levers. Wheels and Axels.	Structure Freestanding Structures
<b>KS1</b>	<ul style="list-style-type: none"> <li>- names of fruit and vegetables -</li> <li>names of equipment</li> <li>- names of utensils</li> </ul> <p>sensory vocabulary, e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard</p>	<ul style="list-style-type: none"> <li>- names of existing products</li> <li>- names of fabrics</li> <li>- names of tools</li> <li>- names of joining and finishing techniques</li> </ul> <p>template, pattern pieces, mark out, join, decorate, finish</p>	<ul style="list-style-type: none"> <li>- names of tools used</li> <li>- names of equipment used</li> <li>- names of materials</li> </ul> <p>used slider, lever, pivot, slot, bridge/guide</p>	<p>cut, fold, join, fix</p> <p>structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved</p>

	<p>flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients</p> <p>planning, investigating, tasting, arranging, popular, design, evaluate, criteria</p>	<p>features, suitable, quality mock-up, design brief, design criteria, make, evaluate, user, purpose, function</p>	<p>pull, push, up, down, straight, curve, forwards, backwards</p> <p>vehicle, wheel, axle, axle holder, chassis, body, cab</p> <p>assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism</p> <p>design, make, evaluate, purpose, ideas, user, criteria, function, functional, design criteria, product</p>	<p>metal, wood, plastic circle, triangle, square, rectangle, cuboid, cube, cylinder</p> <p>design, make, evaluate, user, purpose, ideas, design criteria, product, function</p>
<b>KS2</b>	<p><b>Cooking and Nutrition</b> Healthy and varied diet</p>	<p><b>Textiles</b> 2D to 3D product</p>	<p><b>Mechanical Systems and Electrical Systems</b> Levers and Linkages. Simple circuits and switches</p>	<p><b>Structure</b> Shell structures</p>
	<ul style="list-style-type: none"> <li>- names of products</li> <li>- names of equipment</li> <li>- names of utensils</li> <li>- names of techniques</li> <li>- names of ingredients</li> </ul> <p>texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury</p>	<ul style="list-style-type: none"> <li>- names of fabrics</li> </ul> <p>fabric, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance</p> <p>user, purpose, design, model, evaluate, prototype, annotated</p>	<p>mechanism, lever, linkage, pivot, slot, bridge, guide, system, input, process, output, linear, rotary, oscillating, reciprocating</p> <p>series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb,</p>	<p>shell structure, three-dimensional shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity</p> <p>marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle,</p>



	hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested, healthy/varied die  planning, design criteria, purpose, user, annotated sketch, sensory evaluations	sketch, functional, innovative, investigate, label, drawing, aesthetics, function, pattern pieces	bulb holder, wire, insulator, conductor, crocodile clip  control, program, system, input device, output device  user, purpose, function, prototype, design criteria, innovative, appealing, design brief	corrugating, ribbing, laminating  font, lettering, text, graphics, decision  evaluating, design brief, design criteria, innovative, prototype
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# Progression in Design Technology

	EYFS	Year 1	YEAR 2	LKS2	UKS2
Design	To draw on their own experience to help generate ideas, with support.	To think about how I want my product to look	To design purposeful, functional, appealing products for themselves and other users based on design criteria	To solve real and relevant problems within a variety of contexts	To use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose
	To suggest ideas and explain what they are going to do, with support.	To think about what I want my product to do	To design products with an awareness of purpose	To use research and develop design criteria to inform the design of products aimed at particular individuals or groups	To design and make high-quality prototypes and products for a wide range of users
		To plan out my product before I start making	To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	To generate, develop, model and communicate their ideas through discussion, annotated sketches, mock-ups and, information and communication technology	To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

	EYFS	YEAR 1	YEAR 2	Lower KS2	UKS2
Make	To explore new techniques, e.g. joining and cutting.	To select tools and techniques needed to shape, assemble and join materials	To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]	To use a range of tools with accuracy and precision	To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
	To begin to use small tools safely e.g. scissors and cutlery.	To select from a range of materials according to their characteristics	To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics	To use a range of factors to evaluate the usefulness of a material	To 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
	To begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glue or masking tape.	To explore objects and designs to identify likes and dislikes of the designs	To refine my design as my work progresses, discussing how I have improved it	To refine work and techniques as work progresses, continually evaluating the product design	To develop the creative, technical and practical expertise needed to perform everyday tasks confidently

*‘Roots to Grow and Wings to Fly’*

Evaluate	EYFS	Year 1	Year 2	Lower KS2	UKS2
	To share my creation and explain what I did	To explore objects and designs to identify likes and dislikes of the designs	To explore and evaluate a range of existing products	To evaluate positive and negative features of existing products	To investigate and analyse a range of existing products
	To say what I like about my work	To give likes and dislikes of my own design	To evaluate their ideas and products against design criteria	To critique, evaluate and test their ideas and products and the work of others	To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
	To refine my ideas, making improvements.			To understand how key events and individuals in design and technology have helped shape the world	To evaluate past and present design and technology, developing a critical understanding of its impact on daily life and the wider world
				To draw on disciplines such as mathematics, science, engineering, computing and art	To explain what skills and disciplines I have used in completing a DT project

Cooking and Nutrition	EYFS	Year 1	Year 2	LKS2	UKS2
	To learn how to select and use appropriate fruit and vegetables, processes and tools.	To know some healthy and unhealthy foods	To use the basic principles of a healthy and varied diet to prepare dishes	To design meals that represent a healthy, balanced diet	To understand what constitutes a healthy diet (including understanding calories and other nutritional content).
	To have an awareness of basic food handling/hygienic practises and personal hygiene. E.g. washing hands.	To assemble or cook healthy ingredients with assistance	To assemble and cook healthy ingredients	To assemble or cook healthy ingredients, adapting recipes to meet my needs	To prepare and cook a range of healthy meals using a range of cooking techniques
	To begin to learn about Harvest and understand where food comes from (food origin).	I can name some foods that come from the farm	To understand where food comes from.	To understand foods that are grown in this country and those that come from different regions and climates around the world	To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
				To plan recipes thinking about the cost of different ingredients	To consider affordability during the planning of a meal
		To know I need to wash my hands before preparing food and that equipment must be washed up afterwards	To prepare ingredients hygienically using appropriate utensils.	To consider safety and hygiene when working with food	To understand the importance of correct storage and handling of ingredients

## **What will Design Technology look like in the classroom?**

### **Reading in Design Technology**

### **Assessment**

- D&T exercise books are to be used by each year group within key stage one and two. Teachers are to follow the D&T setting out policy.
- D&T exercise books will be regularly scrutinised to ensure children are being challenged, making good progress and to track whether children will meet National Curriculum expectations at the end of the key stage.
- Teachers are to use a digital platform such as See Saw to record evidence of 3-d work, or work too large to fit in D&T books
- Individual teachers will use the framework to evaluate the quality of their own teaching and the D&T coordinator will use the framework to monitor and evaluate the quality of planning, teaching and learning throughout the school.

- D&T Progression Framework will be used to inform assessment and to report children's progress to parents towards the end of the Summer Term.
- Teachers will fill in an assessment sheet at the end of each project indicating which children met expectations and those significantly above or below. This will be used to inform future planning.
- Children will keep sketches, plan drawings, paper mock ups, research and evaluations in D&T exercise books. These will be used for assessment purposes and monitoring progression.
- Children will be encouraged to make personal assessments of their own work through evaluating activities and identifying what they need to improve

**SEN**

**Monitoring and review**

*'Roots to Grow and Wings to Fly'*