SPRING HILL DESIGN TECHNOLOGY CURRICULUM- EYFS

AUTUMN

Junk Modelling
Exploring junk modelling
Cutting and scissor skills
Construction
Making models-house for the pigs
Cooking and nutrition
Fine motor skills (chopping)
Baking Bread
Textiles
Explore threading and weaving
Structures
Materials-3 little pigs

SPRING

Junk modelling
Exploring junk modelling
Cutting and scissor skills
Construction and Structures
Making models-bridge building for the Gingerbread Man
Cooking and nutrition
Fine motor skills (chopping)
Fruit kebabs
Gingerbread Men
Pancakes
Textiles
Explore threading and weaving

SUMMER

Junk modelling
Exploring junk modelling
Cutting and scissor skills
Construction
Making models-building animal pens for the farm animals
Cooking and nutrition
Fine motor skills (chopping)
Textiles
Explore threading and weaving
Structures
Floating and sinking-boat investigation (Link to science-I am a scientist lesson 3)

SPRING HILL DESIGN TECHNOLOGY CURRICULUM- YEAR 1

AUTUMN

Are all food wraps healthy?

Lesson 1: To know where ingredients found in wraps come from by exploring products.

Lesson 2: To know how to cut, spread, grate and fold using the correct tools and equipment.

Lesson 3: To design and be able to talk about a healthy and appealing product.

Lesson 4/5: To select from and use a wide range of ingredients and equipment to make a wrap.

Lesson 6: To evaluate my ideas and product against a design criteria.

SPRING

How can I make my card move?

Lesson 1: To explore and understand how slider and lever mechanisms work.

Lesson 2: To know how to make a range of slider and lever mechanisms.

Lesson 3: To design a card with a slider or lever mechanism.

Lesson 5: To make a card with a slider or lever mechanism.

Lesson 6: To evaluate how well the mechanism in my card works.

SUMMER

How are hand puppets made?

Lesson 1: To share our thoughts about existing puppet products.

Lesson 2: To know how to join fabrics using a needle and thread. (Basic Running stitch)

Lesson 3: To design an attractive hand puppet.

Lesson 4: To know how templates help when working with fabrics.

Lesson 5: To choose from a range of materials to make a hand puppet.

Lesson 6: To evaluate my puppet against a given design criteria.

SPRING HILL DESIGN TECHNOLOGY CURRICULUM- YEAR 2

AUTUMN

Strong and Stable!

Lesson 1: To explore different types of structures.

Lesson 2/3: To know how to make a structure stronger, stiffer and more stable.

Lesson 4: To be able to design a structure (chair) and talk about how it is strong, stiff and stable.

Lesson 5: To select from and use a range of materials to construct a mock-up chair.

Lesson 6: To explore and evaluate the strength of our mock-up chairs.

SPRING

How do vehicles move?

Lesson 1: To know how wheel and axle products work.

Lesson 2: To know which construction materials are used to make wheel and axle mechanisms.

Lesson 3: To design a vehicle with a wheel and axle mechanism.

Lesson 5: To know how to construct a wheel and axle mechanism.

Lesson 6: To evaluate how well our wheel and axle mechanisms work.

SUMMER

Splendid Salads!

Lesson 1: To know where the ingredients found in salads come from and how salads can vary.

Lesson 2: To design a salad (using ICT) and discuss how it is different.

Lesson 3: To know how to use a range of equipment to prepare a salad dish.

Lesson 4: To evaluate how varied our salad dishes are.

SPRING HILL DESIGN TECHNOLOGY CURRICULUM- YEAR 3

AUTUMN

Perfect pizza choices!

Lesson 1: To explore and analyse a range of pizza toppings.

Lesson 2: To know that pizza ingredients are grown in different locations and during different seasons.

Lesson 3: To develop and communicate ideas for pizzas through discussion and annotated sketches.

Lesson 4: To select from and know how to use the appropriate tools to make our pizzas.

Lesson 6: To consider the views of others when evaluating my product.

SPRING

How do puppets work with linked levers?

Lesson 1: To analyse linked lever products and consider how appealing and fit for purpose they are.

Lesson 2: To practice making linked levers and understand how to strengthen the mechanism.

Lesson 3: To create a design criteria for linked levers.

Lesson 4: To create an annotated sketch of a puppet.

Lesson 5: To make a prototype of a puppet including linked levers.

Lesson 6: To consider the views of others when evaluating my product.

SUMMER

Hold it together!

Lesson 1: To investigate the different types of shell structures found in school.

Lesson 2: To know how shell structures are reinforced, stiffened and strengthened.

Lesson 3: To use research to develop a design criteria. To draw annotated sketches of their designs.

Lesson 4: To select from and use the appropriate construction materials to make a desk tidy.

Lesson 5: To evaluate how well their product meets their own design criteria.

SPRING HILL DESIGN TECHNOLOGY CURRICULUM- YEAR 4

AUTUMN

Make it move!

Lesson 1: To know how individuals like Elon Musk and Mary Jackson have shaped the world.

Lesson 2: To understand the mechanical system of a pulley and explore how they work

Lesson 3: To develop ideas and draw exploded diagrams to show our ideas for a pulley in a motorised car.

Lesson 4: To know which materials are the most functional and aesthetically pleasing for our products.

Lesson 5: To know which tools and pieces of equipment are needed to create our motorised car.

Lesson 6: To evaluate the effectiveness of our pulley systems.

SPRING

What makes a dip vegan?

Lesson 1: To know how individuals like Ella Woodward have promoted vegan dishes.

Lesson 2: To evaluate dips made for the vegan diet and communicate our ideas through discussion.

Lesson 3: To design our own product suitable for a vegan diet

Lesson 4: To know which ingredients and equipment are needed to make a vegan dip.

Lesson 5 : To evaluate their product using the views of others.

SUMMER

How can we carry it?

Lesson 1: To know how the industrial revolution helped shape the history of bags. (Margaret Knight)

Lesson 2: To analyse a range of existing tote bags and develop a design criterion.

Lesson 3: To generate and communicate ideas through annotated sketches. (Tote bag)

Lesson 4: To create pattern pieces to aid construction of our Tote bag designs.

Lesson 5/6: To know how to use different stitch types to join fabrics for a prototype. (cross, back and running)

Lesson 6: To evaluate our prototypes against the design criterion.

SPRING HILL DESIGN TECHNOLOGY CURRICULUM- YEAR 5

AUTUMN

How do automata toys move?

Lesson 1: To understand the mechanical system of CAMS.

Lesson 2: To choose a range of tools and equipment to make CAM mechanisms.

Lesson 3: To research and develop a design criterion for an appealing automaton character display.

Lesson 4: To develop my automaton character display ideas through computer aided design.

Lesson 5: To accurately use a range of tools and equipment to create our products.

Lesson 6: To evaluate our products against our design criteria.

SPRING

Light it up!

Lesson 1: To develop an awareness of how Smart Home devices work. (lights, thermostat, speakers, security cameras)

Lesson 2: To develop annotated diagrams to explain how Smart Home Devices work.

Lesson 3: To know how sensors are used in Smart Home Devices (AI systems- programming)

Lesson 4: To develop ideas using computer aided design (sensored night light)

Lesson 5: To communicate ideas through exploded diagrams.

Lesson 6: To use prototypes to model our ideas.

Lesson 7: To evaluate their product using the views of others.

SUMMER

What can we add to our stew?

Lesson 1: To know where and when ingredients found in stew are grown. To know that some ingredients are reared, caught and processed.

Lesson 2: To evaluate existing stews, discuss the healthiness of them and develop a design criterion.

Lesson 3: To design a healthy stew using annotated sketches to share our ideas.

Lesson 4: To model the process of making our stew using a design diagram.

Lesson 5: To accurately use the correct tools to make our stew.

Lesson 6: To evaluate our product, using the views of others to help improve it.

SPRING HILL DESIGN TECHNOLOGY CURRICULUM- YEAR 6

AUTUMN

The Great Bread Bake Off!

Lesson 1: To know where and when, ingredients which are found in bread, are grown and how they are processed.

Lesson 2: To analyse different bread types and develop a design criterion.

Lesson 3: To develop ideas for our own breads and communicate our ideas through discussion.

Lesson 4: To prepare and cook a variety of breads.

Lesson 5: To evaluate our products and consider the views of others to improve them.

SPRING

How will I keep my equipment safe?

Lesson 1: To understand how designers help to shape the world of fashion.

Lesson 2: To evaluate existing products based on their innovative design and functionality.

Lesson 3: To design an appealing pencil case and communicate our ideas using cross sectional diagrams.

Lesson 4/5: To know how to join and finish materials using cross, back and running stitch.

Lesson 6: To evaluate our products based on their functionality.

SUMMER

Light it up!

Lesson 1: To evaluate existing frame structures found around school. To develop a design criterion.

Lesson 2: To understand how frames are joined, strengthened, stiffened and reinforced.

Lesson 3: To understand how electrical systems work (buzzers, switches, motors)

Lesson 4: To design a frame structure suitable for a school entrance way (welcome sign etc)

Lesson 5/6: To select from and accurately use equipment and tools to create our frame structures.

Lesson 7: To evaluate our products based on their functionality