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| **Autumn** – Vehicles (Mechanisms and Structures)**Learning Outcomes** – * To investigate a variety of vehicles and their uses and features.
* To investigate wheels, axles and chassis.
* To be able to investigate ways of creating and decorating the body of a vehicle.
* To be able to design a vehicle.
* To be able to make a vehicle based on a design.
* To be able to evaluate a finished product.
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| **Throughout the year*** State what products they are designing & making and say whether their products are for themselves or other users.
* Say how their products will work
* Use finishing techniques, including those from art and design
* Talk about their design ideas and what they are making and why
* Make simple judgements about their products and ideas against design criteria
* Model ideas by exploring materials, components and construction kits
* Suggest how their products could be improved
* Evaluate: How products work, how products are used, what materials products are made from and what they like and dislike about products
* Begin to talk about what could make product better
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| **Skills:** | **Design*** Have own ideas
* Explain what I want to do
* Research similar existing products
* Describe design using pictures and words
 | **Make*** Explain what I am making and why it fits the purpose
* Make suggestions as to what I need to do next.
* Join materials/components together in different ways
* Describe which tools I’m using and why
* Choose suitable materials and explain choices depending on characteristics
 | **Evaluate*** Describe what went well, thinking about design criteria
* Talk about what I would do differently if I were to do it again and why
 | **Technical Knowledge – Mechanisms/ Structures*** Use levers or slides
* Begin to understand how to use wheels and axles
* Build structures, exploring how they can be made stronger, stiffer and more stable
 | **Vocabulary*** Wheels
* Transport
* Axle
* Chassis
* Move
* Drive
* Function
* Investigate
* Features
* Power
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| **Spring** – Puppets (Textiles)**Learning Outcomes** – * To investigate a range of puppets and their features.
* ~~To be able to work with fabric to create a finger puppet.~~ (we make a hand puppet?)
* To develop and practise sewing skills.
* To be able to design a glove puppet.
* To be able to follow a design to make a puppet.
* To be able to evaluate a finished product.
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| **Throughout the year*** State what products they are designing & making and say whether their products are for themselves or other users.
* Say how their products will work
* Use finishing techniques, including those from art and design
* Talk about their design ideas and what they are making and why
* Make simple judgements about their products and ideas against design criteria
* Model ideas by exploring materials, components and construction kits
* Suggest how their products could be improved
* Evaluate: How products work, how products are used, what materials products are made from and what they like and dislike about products
* Begin to talk about what could make product better
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| **Skills:** | **Design*** Have own ideas and plan what to do next
* Describe design using pictures, words, models diagrams
* Use knowledge of existing products to produce ideas
* Explain what I want to do and describe how I may do it
 | **Make*** Make suggestions as to what I need to do next.
* Join materials/components together in different ways
* Measure, mark out, cut and shape materials and components, with support
* Choose suitable materials and explain choices depending on characteristics
* Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
 | **Evaluate*** Describe what went well, thinking about design criteria
* Talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion
* Evaluate how good existing products are
* Talk about what I would do differently if I were to do it again and why
* *Explore and evaluate a range of existing products*
* *Evaluate my ideas and products against design criteria*
 | **Technical Knowledge – Textiles*** Measure textiles
* Join textiles together to make a product, and explain how I did it
* Carefully cut textiles to produce accurate pieces
* Explain choices of textile
* Understand that a 3D textile structure can be made from two identical fabric shapes.
 | **Vocabulary*** Character
* Hand
* Felt
* Knot
* Features
* Investigate
* Sew
* Needle
* Template
* Thread
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| **Summer** – Perfect Pizzas (Food & Nutrition)**Learning Outcomes** – * To find out what the favourite pizzas in the class are.
* To examine, describe and categorise a variety of bread-based products.
* To examine, describe and categorise a variety of pizza toppings.
* To design a balanced healthy pizza.
* To be able to make and evaluate a food product based on a design.
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| **Throughout the year*** State what products they are designing & making and say whether their products are for themselves or other users.
* Say how their products will work
* Use finishing techniques, including those from art and design
* Talk about their design ideas and what they are making and why
* Make simple judgements about their products and ideas against design criteria
* Model ideas by exploring materials, components and construction kits
* Suggest how their products could be improved
* Evaluate: How products work, how products are used, what materials products are made from and what they like and dislike about products
* Begin to talk about what could make product better
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| **Skills:** | **Design*** Have own ideas and plan what to do next
* Describe design using pictures, words, models diagrams, begin to use ICT
* Explain what I want to do and describe how I may do it
 | **Make*** Explain what I am making
* Make suggestions as to what I need to do next.
* Work safely and hygienically
* 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*** Describe what went well, thinking about design criteria
* Talk about what I would do differently if I were to do it again and why
 | **Technical Knowledge – Food & Nutrition*** Explain hygiene and keep a hygienic kitchen
* Describe properties of ingredients and importance of varied diet - Say where food comes from (animal, underground etc.)
* Describe how food is farmed, home-grown, caught
* Draw eat well plate; explain there are groups of food
* Describe “five a day”
* Cut, peel and grate with increasing confidence
* *Use the basic principles of a healthy and varied diet to prepare dishes*
* *Understand where food comes from.*
 | **Vocabulary*** Design
* Life-skill
* Nutrition
* Evaluate
* Diet
* Temperature
* Cook
* Healthy
* Balanced
* Chopping
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