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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. | | | | | |
| **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 | | | | | |
| **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 |
| **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. | | | | | |
| **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 | | | | | |
| **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 |
| **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. | | | | | |
| **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 | | | | | |
| **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 |