Design and Technology

Year 1 – Mechanisms – Making a Moving Storybook		
Prior Learning	Year 1	Future Learning
In EYFS, children will:	**In Year 1, children will:**	**In Year 2, children will:**
Design Make Evaluate **Technical Knowledge** -	**Design** - Explaining how to adapt mechanisms, using bridges or guides to control the movement. - Designing a moving story book for a given audience. **Make** - Following a design to create moving models that use levers and sliders. **Evaluate** - Testing a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed. - Reviewing the success of a product by testing it with its intended audience. **Technical Knowledge** - To know that a mechanism is the parts of an object that move together. - To know that a slider mechanism moves an object from side to side. - To know that a slider mechanism has a slider, slots , guides and an object.	**Design** - Creating a class design criteria for a moving monster. - Designing a moving monster for a specific audience in accordance - with a design criteria. **Make** - Making linkages using card for levers and split pins for pivots. - Experimenting with linkages adjusting the widths, lengths and thicknesses of card used. - Cutting and assembling components neatly. **Evaluate** - Evaluating own designs against design criteria. - Using peer feedback to modify a final design. **Technical Knowledge** - To know that mechanisms are a collection of moving parts that work

	- To know that bridges and guides are bits of card that purposefully restrict the movement of the slider. **Vocab** Adapt, assemble, design, design criteria, input, mechanism, model, sliders, test	together as a machine to produce movement. - To know that there is always an input and output in a mechanism. - To know that an input is the energy that is used to start something working. - To know that an output is the movement that happens as a result of the input. - To know that a lever is something that turns on a pivot. - To know that a linkage mechanism is made up of a series of levers.

Pupils who are secure will be able to:

- Identify whether a mechanism is a side-to-side slider or an up-and-down slider and determine what movement the mechanism will make.
- Clearly label drawings to show which parts of their design will move and in which direction.
- Make a picture that meets the design criteria, with parts that move purposefully as planned.
- Evaluate the main strengths and weaknesses of their design and suggest alterations.

National Curriculum Subject Content

Design	Make	Evaluate	Technical Knowledge
- 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	- 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	- Explore and evaluate a range of existing products. - Evaluate their ideas and products against design criteria.	- 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.

appropriate, information and communication technology.	materials, textiles and ingredients, according to their characteristics.		