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| **DT Year 1 Medium Term Planning – Mechanisms Block A** | | | |
| **National Curriculum**   * 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. | | | |
|  | Lesson 1 | Lesson 2 | Lesson 3 |
| **Learning intention** | How do you make a picture move? | How do you make a picture move? | How do you make a picture move? |
| **Skills taught** | Using scissors  Using a template | Making the slider rigid by gluing multiple strips of paper together  Raising the bridge above the surface by layering squares of paper under each end.  Creating runners from strips of paper | Identifying limitations of techniques or materials and making design adjustments as needed. |
| **Recall and retrieval** | Scissors can be used more accurately by placing the material to be cut near the pivot of the scissors and making small cuts | A push is a force to move something away from you.  A pull is a force to move something nearer to you.  A slider is a rigid bar that moves backwards and forwards along a straight line.  A linear movement is a movement along a straight line.  Some cards and books have sliding mechanisms to make images move. | There are different types of slider mechanism:  1. The slider moves through two slots  2. The slider moves through two bridges  3. The slider moves between runners, which are covered by a layer of paper to conceal the mechanism  The design and purpose of a product will influence which mechanism is used |
| **Sequence of knowledge throughout the lesson** | **Key knowledge**  Know what a slider is.  Know the way a slider moves and the direction it moves in. | **Key knowledge**  know how to make paper more rigid and why it is important for the slider to be made rigid  know what a bridge is. | **Key knowledge**  Know how to select a suitable mechanism for a specific design. |
| **Scaffolding** | Visual steps to success. | Teacher guidance to make 1 mechanism.  Working examples.  Visual steps to success. | Teacher guidance to make 1 mechanism.  Working examples.  Visual steps to success. |
| **Challenge** | Explain which items use a slider mechanism. | Make all 3 mechanisms. | Design and make a picture with two types of slder mechanism. |
| **Key Vocabulary** | Slider  Slot  Bridge  Push  Pull  Rigid | Slider  Slot  Bridge  Push  Pull  Rigid | Slider  Slot  Bridge  Push  Pull  Rigid |