My design

Evaluation -

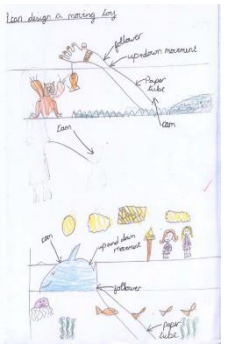
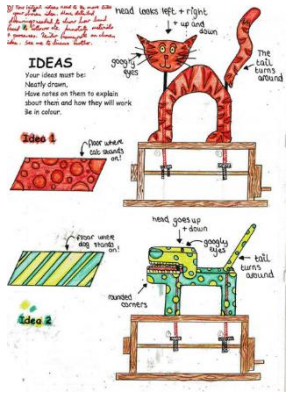
What did I do well? _____

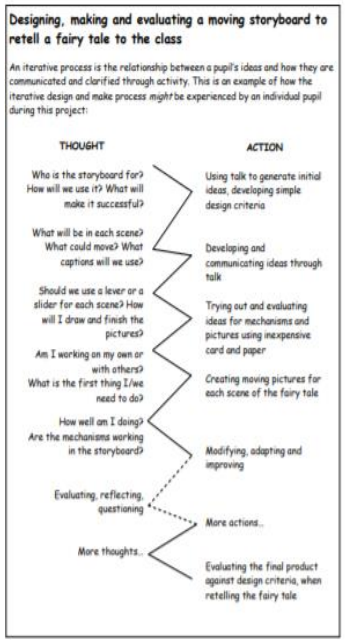
_____

What would I do differently next time? _____

_____

Week overview – Daily tasks

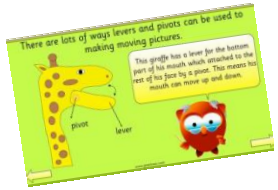
Day	Activity	
Monday	Draw your creature idea on the design sheet or on a piece of paper. This should be a large image so that you can include details. Then around the side write down ideas of what you will use for your model. This is called an **annotated design** and helps you plan your making stage. Here is an example of an annotated design. The more time you spend on this the better and easier it will be to create your model. Think about which part or parts are going to move and how you will achieve this. Use the images and web links for ideas on sliders, levers, etc and how to add them to your design. From this you can then collect the resources you will need.	 
Tuesday	Today you can start to draw up your design on your card. Most important is that you draw your idea large, clear and with limited small parts to cut out as this will make it easier and more effective. Any parts that you are cutting off to become a moving part for example, a moving bottom jaw, this needs to be a large area as if it is only small it might rip when you move it. In the image they have used separate pieces of card and then joined them, this might be an idea to consider. At this point you want to colour your creature, remember bright colours are more effective.	 

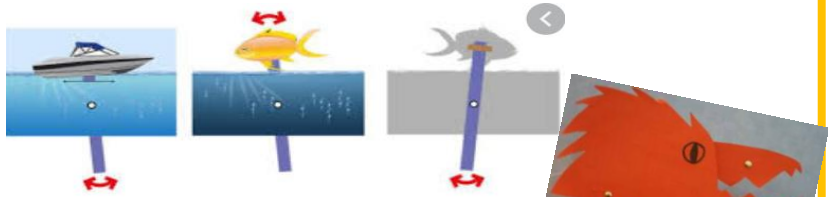
Wednesday	Today you are going to cut out and assemble your creature. Take care with the scissors and take your time. If you have drawn a clear uncomplicated image this should be easier for you to do. When making holes please get an adult to help you and **Be Careful** with anything sharp. Remember to put the mechanisms on the back of your creature so the image looks nice. There are lots of ideas in this document and also look online for ideas. When you have finished it is time to **evaluate** your model. What did you do well? If you did this again, what would you do differently or improve? Doing an evaluation is important as it is part of your learning and designing process.	
Thursday Friday	Select **one** of these 2 tasks. If you are going to create the diorama here are some ideas to inspire you.     https://www.youtube.com/watch?v=_DJKyM3JIAI https://www.youtube.com/watch?v=_DJKyM3JIAI **excellent videos showing how to make a diorama.** You can cut a hole on one side of your show box so that you can move your creature around in your diorama. To do this you can attach your model to a stick or piece of strong card so that it can move across from one side to another. The owl and the pussycat one above has a boat that moves and waves that move.	Over the next 2 days we want you to create a storyboard showing your creature as part of a story you have written.  **Designing, making and evaluating a moving storyboard to retell a fairy tale to the class** An iterative process is the relationship between a pupil's ideas and how they are communicated and clarified through activity. This is an example of how the iterative design and make process *might* be experienced by an individual pupil during this project: THOUGHT / ACTION Who is the storyboard for? How will we use it? What will make it successful? — Using talk to generate initial ideas, developing simple design criteria What will be in each scene? What could move? What captions will we use? — Developing and communicating ideas through talk Should we use a lever or a slider for each scene? How will I draw and finish the pictures? — Trying out and evaluating ideas for mechanisms and pictures using inexpensive card and paper Am I working on my own or with others? What is the first thing I/we need to do? — Creating moving pictures for each scene of the fairy tale How well am I doing? Are the mechanisms working in the storyboard? — Modifying, adapting and improving Evaluating, reflecting, questioning — More actions.. More thoughts.. — Evaluating the final product against design criteria, when retelling the fairy tale. A larger version of this on a later page. For your storyboard you need to divide your story into sections, draw a picture in the box and then describe what is happening underneath.

Design a moving creature

Design brief

As part of your English work you have designed a creature. Using your idea, your task is to create a moving 2-D representation of your creature. This can be as part of an overall picture of the creature on a background or as just the creature itself. **The model must have at least 1 moving part.** This could be created with a slider, lever or a pivot. The images below will give you some ideas of what you could do. Once you have created your model we want you to then create either a storyboard showing the different stages or a shoe box diorama, if you are doing the diorama, then your model needs to be small enough to fit in the shoe box as part of your creation. There are examples of these on the daily task page.





Materials you might need.

Card – use empty cereal boxes. Shoe box
Scissors, Glue, Tape, Split pins
Lollipop sticks or twigs. Crayons or colouring pencils.

DT objectives

Design products for a purpose.
Create an annotated design.
Use tools correctly and safely.
Use mechanical systems in products.
Evaluate your design and finished product.

Key Vocabulary –

design, annotate evaluate, cut, fold, join, decoration, apply, link, construct, function, mechanism, slider, lever, pivot, diorama.

Nice idea using pegs.

Web links –

https://www.youtube.com/watch?v=luegE0IxLyc
https://www.youtube.com/watch?v=hA1Fmhwah18
https://www.youtube.com/watch?v=V1-ncbdxncc
https://www.youtube.com/watch?v=DSD_9cNz0IY

Making a diorama

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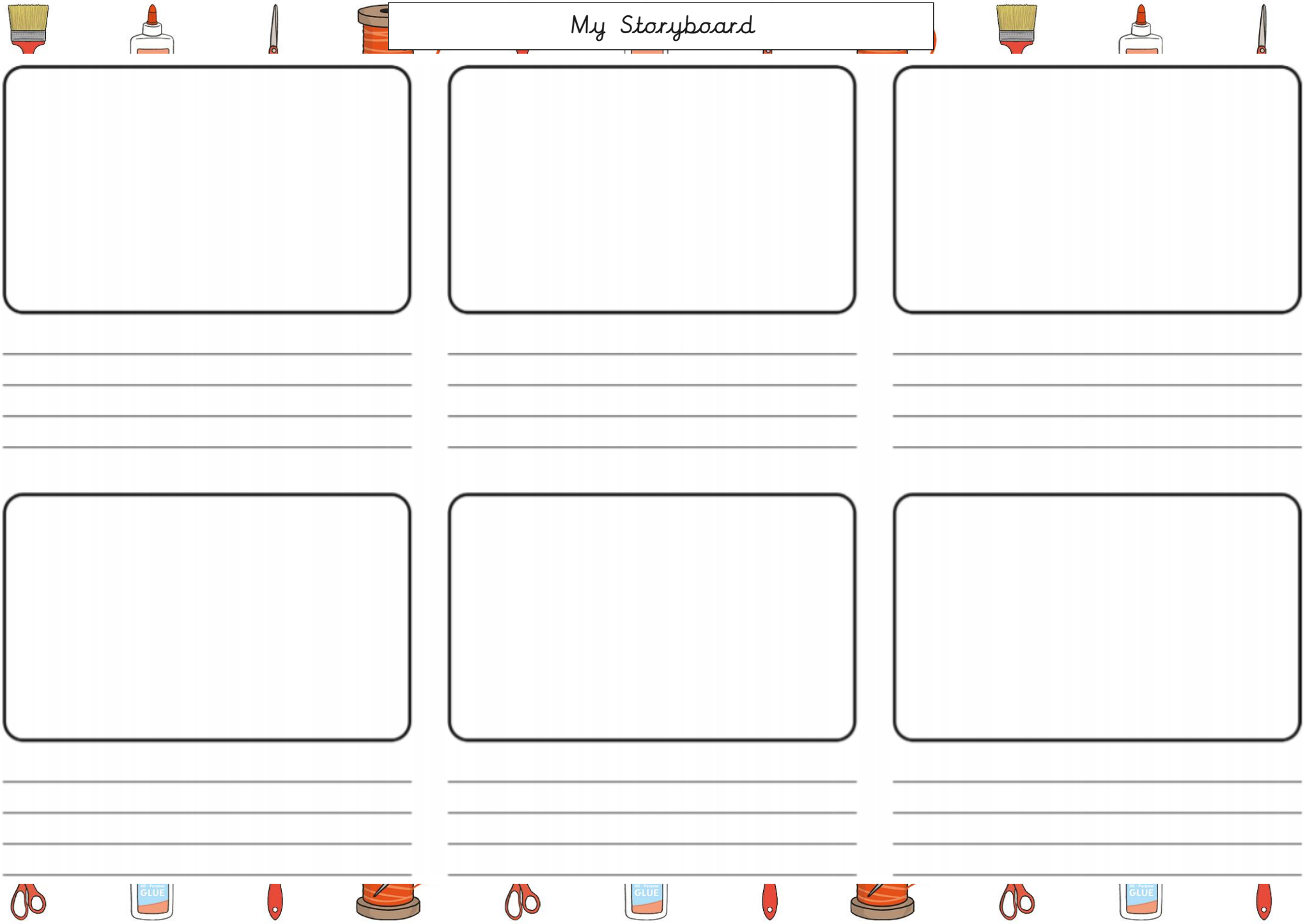
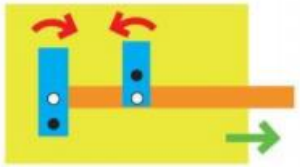
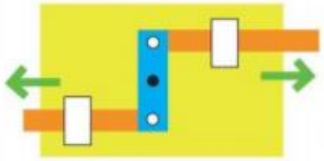
My Storyboard

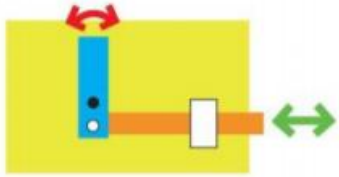


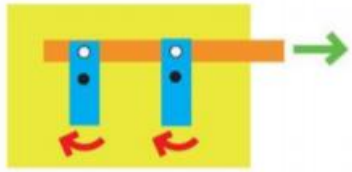
Extra ideas to help you making your creature model.

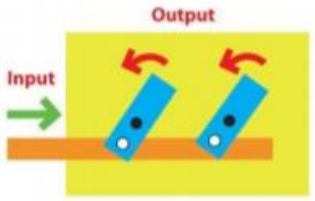
● Fixed pivot
○ Loose pivot





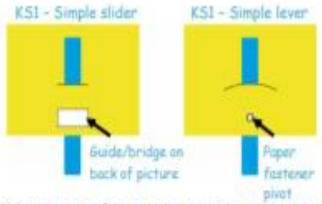






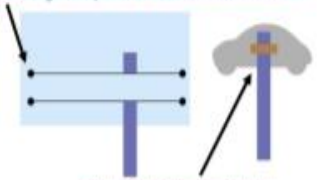
When you push the card strip (input movement), the two levers move (output movement).

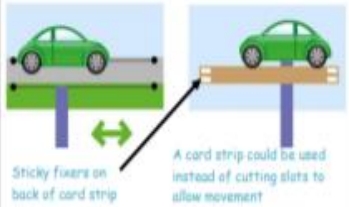
Teaching aids to demonstrate sliders and levers



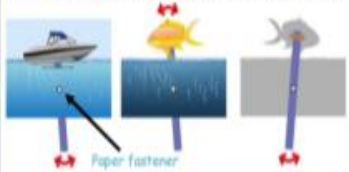
Sliders move from side to side and up and down

Use a single hole punch to make a hole then cut a slot



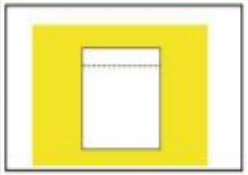


Levers can be used with or without a slot



A card strip is used as a lever. The fish and boat are glued to the lever which is used as a handle.

As an enhancement to this project children could add flaps to their moving pictures. Some children may find flaps, which can be used to make a picture appear and disappear, easier to make than levers or sliders.



Where children have a particularly good understanding of levers and sliders in Key Stage 1, they could be introduced to the simplest lever and linkage mechanism used in Key Stage 2. This will introduce them to the idea of loose and fixed pivots.

● Fixed pivot
○ Loose pivot

Simple mechanisms move:

- in a straight line
- in a straight line, backwards and forwards
- round and round
- in a curve

Designing, making and evaluating a moving storyboard to retell a fairy tale to the class

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Evaluating, reflecting, questioning	More actions...
More thoughts...	Evaluating the final product against design criteria, when retelling the fairy tale

Glossary

- **Mechanism** - a device used to create movement in a product.
- **Lever** - a rigid bar which moves around a pivot. Levers are used in many everyday products. In this project children will use card strips for levers and paper fasteners for pivots.
- **Slider** - a rigid bar which moves backwards and forwards along a straight line. Unlike a lever, a slider does not have a pivot point.
- **Slot** - the hole through which a lever or slider is placed to enable part of a picture to move.
- **Guide or bridge** - a short card strip used to keep sliders in place and control movement.