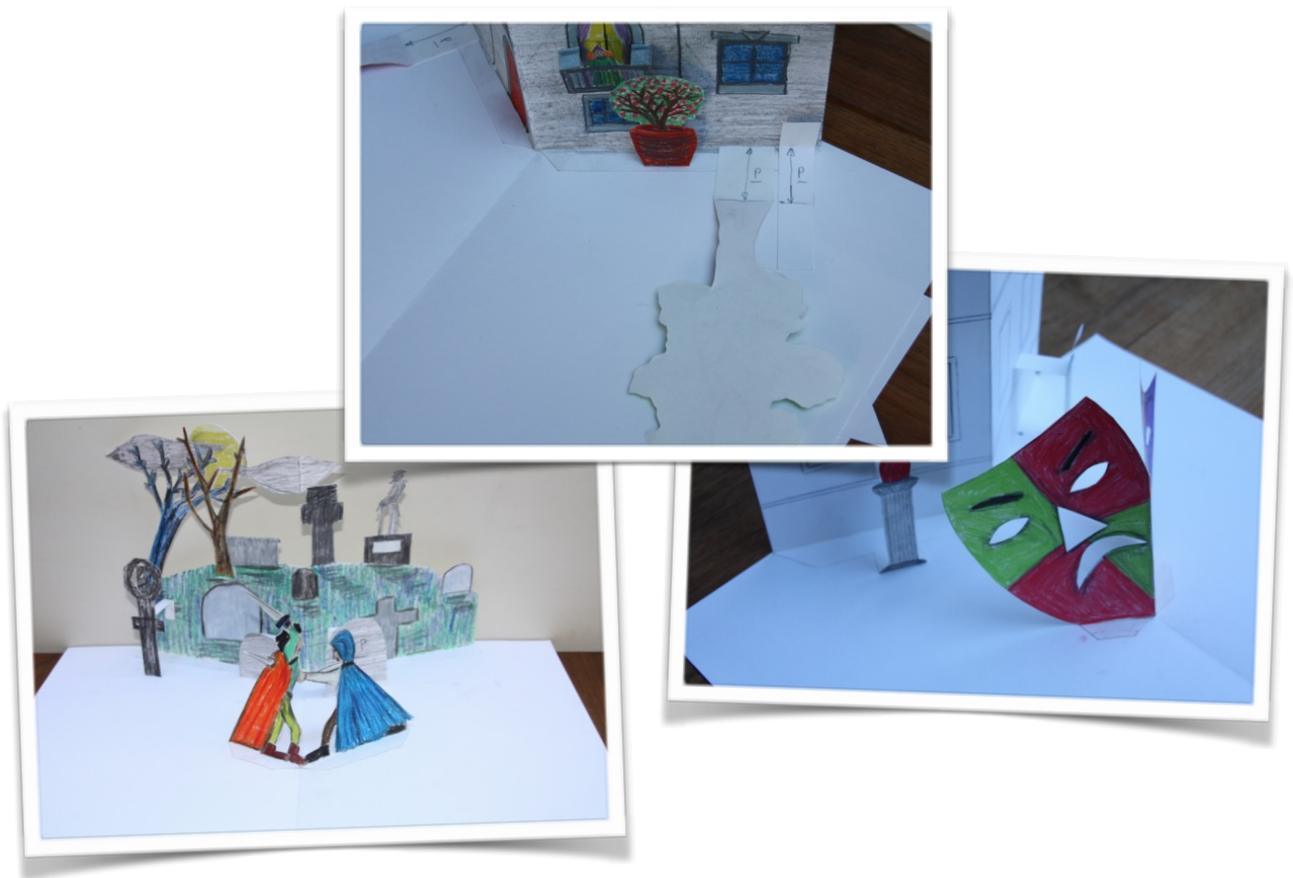


# Pop-up Details

(Using Romeo and Juliet as an example)



## Introduction

This project incorporates only a tiny fraction of all the available techniques that make up pop-up books and projects. I have chosen the two key elements in pop-up: The V-Fold and the Parallelogram which are the basis for almost all pop up and added one more feature, the

angled V-fold. All these techniques can be used individually to create effective pop-up books and display (where one side of the page is attached to a vertical surface). They can also be used together to create



complex scenes that have a background, some props or furniture and a foreground.

The lessons all rely on creating two of each type - a practice piece that gives the student an understanding of the method and an artistic piece where the student uses the learned technique to create a piece of art. I have tried to show each step, but it is difficult to do this justice (in retrospect I should have made series of videos to show how to make the different things).

Once a basic principle has been understood, students should be encouraged to experiment and try out different techniques.

# Session 1:

## **Launching the project**

It is a big ask, but I suggest making one pop-up yourself and using that to launch the project. If you make a pop-up before each session that uses what is being taught in the session that will help. If you want to be ambitious and create one pop-up that uses all three techniques and explain that over the course of the first three sessions this is what the students will learn then so much the better. It will also help if you have struggled with pop-up yourself and can therefore pre-empt problems the students might have and empathise with their frustration!

I recommend getting the students to fill in a critique sheet at the end of each session that outlines what went well, what they struggled with and what they have learnt about pop-ups. This encourages a healthy approach to mistakes and problems - they can be highlighted as good opportunities for learning and a collaborative approach to a tricky set of tasks.

## **The Right angled V-fold.**

This is the most basic pop up there is.

All students will need:

A piece of A4 card (180-220gsm)

A piece of A5 card (180-220gsm)

A ruler

A protractor

Scissors

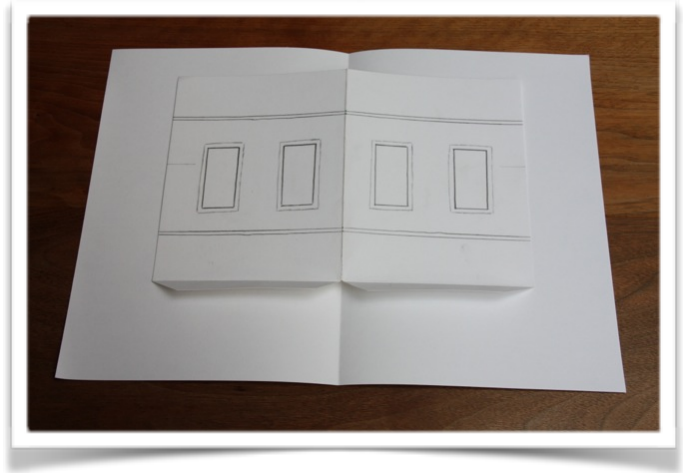
This is the easiest and most basic of pop-ups.

Both pieces of card should be folded in half. The larger piece will act as the page that will be opened. The smaller piece will act as pop-up.

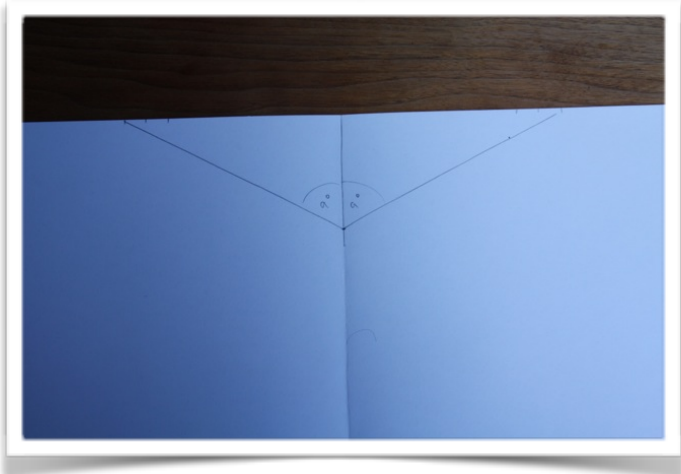


Ideal pop-up card

This show the two pieces of card folded in half. I have started to draw the design on the pop-up card.

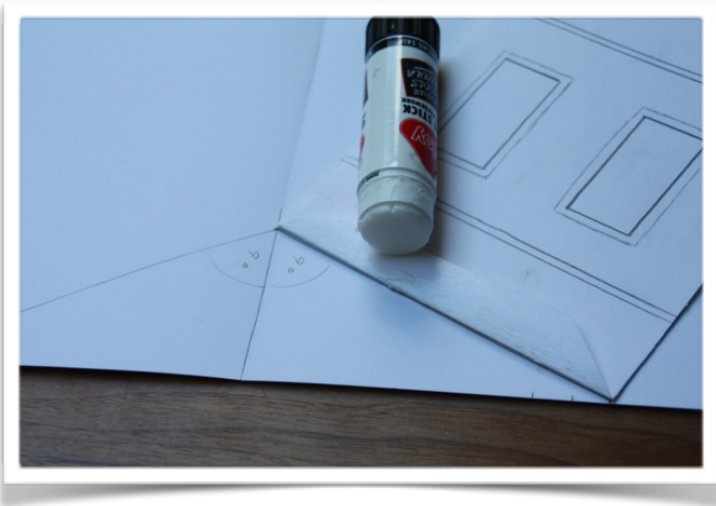
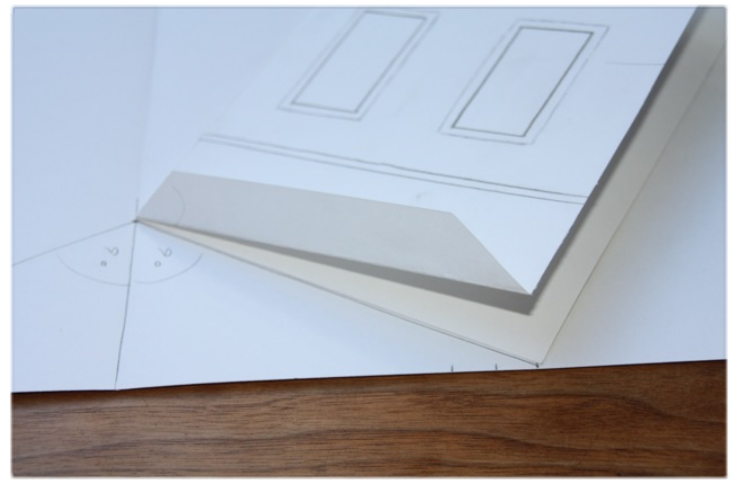


The smaller card has a small fold made parallel to the bottom. This is then trimmed to create tabs with which it will be glued down.



On the base card a line is drawn showing the angle that the pop-up section will be at. A symmetrical line with the SAME angle can be drawn.

One of the tabs is glued along the line, with the fold of the pop-up piece touching the fold of the base piece. It should be given a minute to dry.



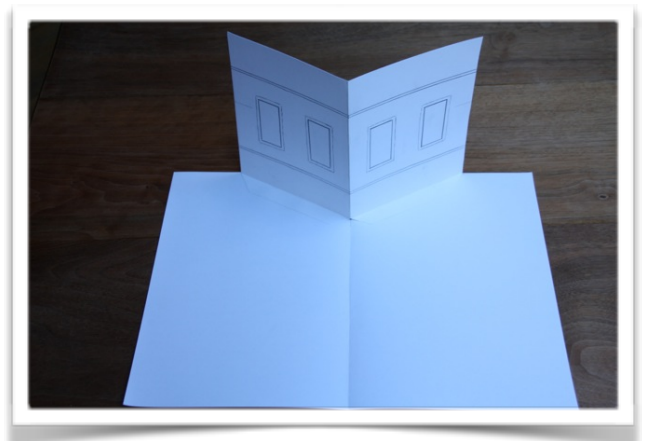
Glue is then applied to the other tab (as shown) and then the base card is folded over to, as though the page was being shut. This should be pressed down and held for a minute to allow the glue to adhere.

When the base card is opened the shape will pop-up!

The Right-angled V-Fold.

Students should be encouraged to

**Nick Turner**



**Pop-up Project lesson details**



try different angles, have the V-fold point away from the viewer or pointing towards the viewer. These different results should be explored and form part of the critique either before starting the artistic right-angled V-fold or at the end of the session.

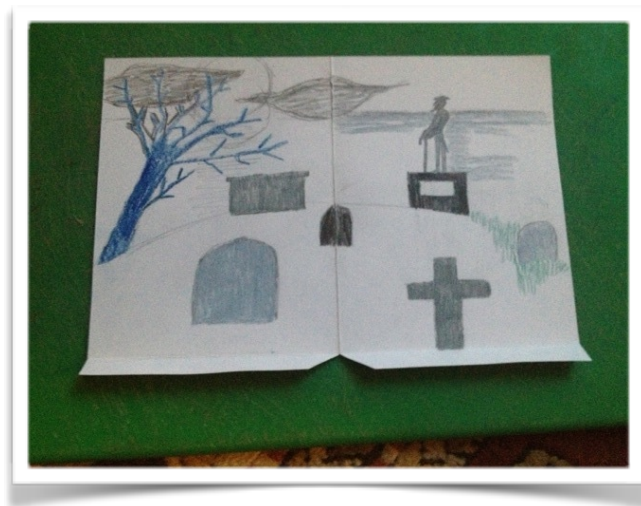
If students want to make many different versions this should be encouraged.

**THE PRINCIPLE:** As long as the angle that the pop-up piece is glued is the SAME ON BOTH SIDES of the base fold, then the pop-up will work.

### **Artistic right-angled V-folds.**

Once the basic principle is understood then students can make the pop-up piece, draw a scene and cut it out, and as long as the base of the pop-up is fixed correctly it will work.

Below are some examples I made for Romeo and Juliet - all the backgrounds are made using a right-angled V-fold.



The sketch that was used in a right-angled V-fold

A Right-angled V-fold background being glued to the base card at the fold.





Session 2:

**Nick Turner**

**Pop-up Project lesson details**

## The Parallelogram:

This technique incorporates the second basic principle of pop-up - the use of the parallelogram.

All pop-ups (like the right angled V-fold you made in session 1) can have extra bits glued to them that will also pop-up if they are attached using parallelograms.



Juliet's bedroom. Made using a right angled V-fold with two parallelograms attached to form the bed and the chest of drawers.

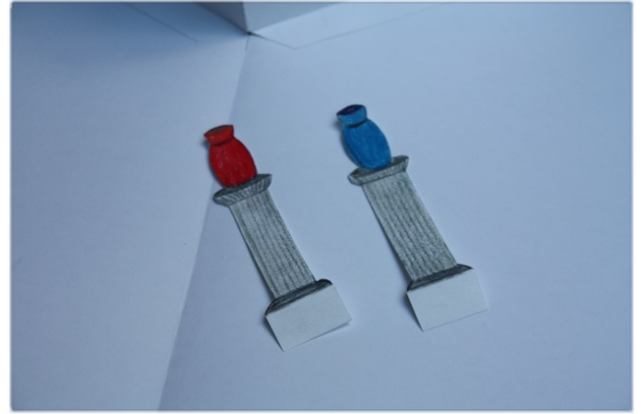
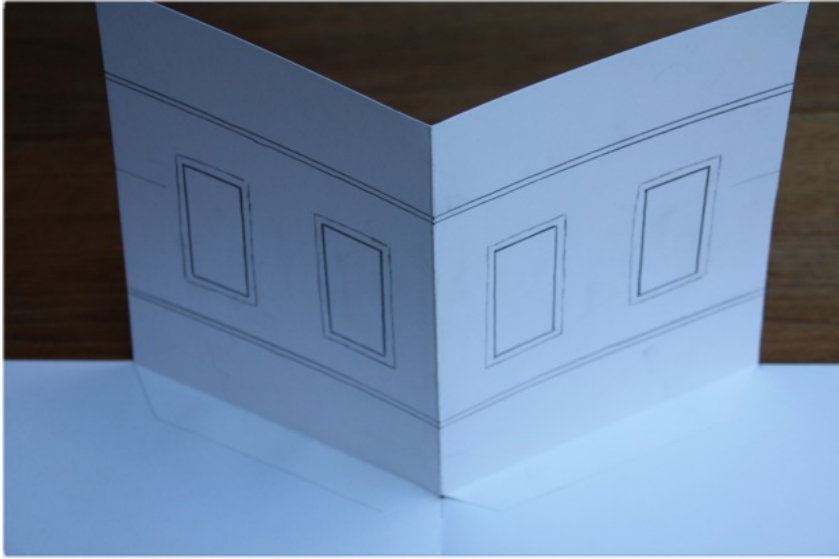
In this session there are two methods.

1. Adding parallelograms to the right angled V-fold.
2. Creating display pop-ups using parallelograms.

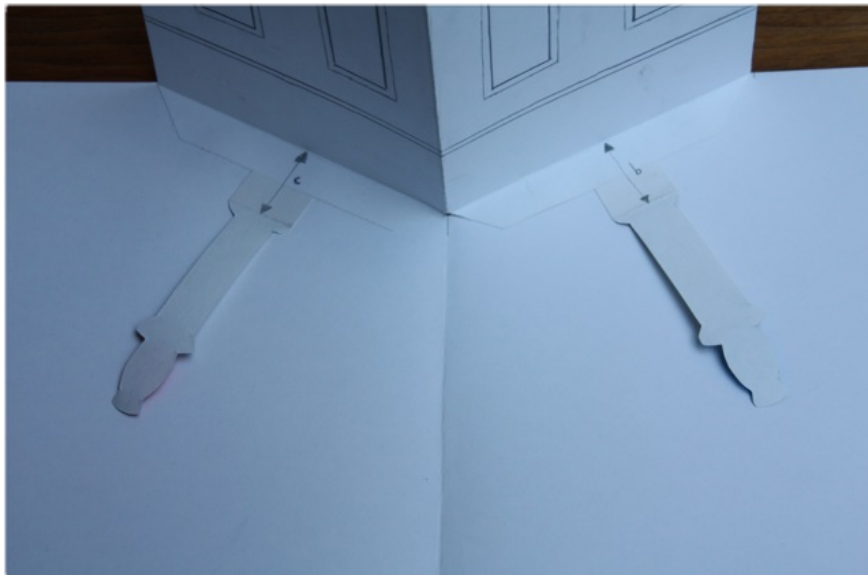
1. Adding parallelograms to right-angled V-folds.



If you attach parallelograms to a right-angled V-fold, they will pop up too. All distances can be measured absolutely or relatively. All scoring can be done with a ink-less biro or something similar.



Onto the right-angled V-fold I want two vases on pedestals to pop up.



The vases are glued by their tabs perpendicular to the background pop-up. The distance from the background to the base of the vase is measured.



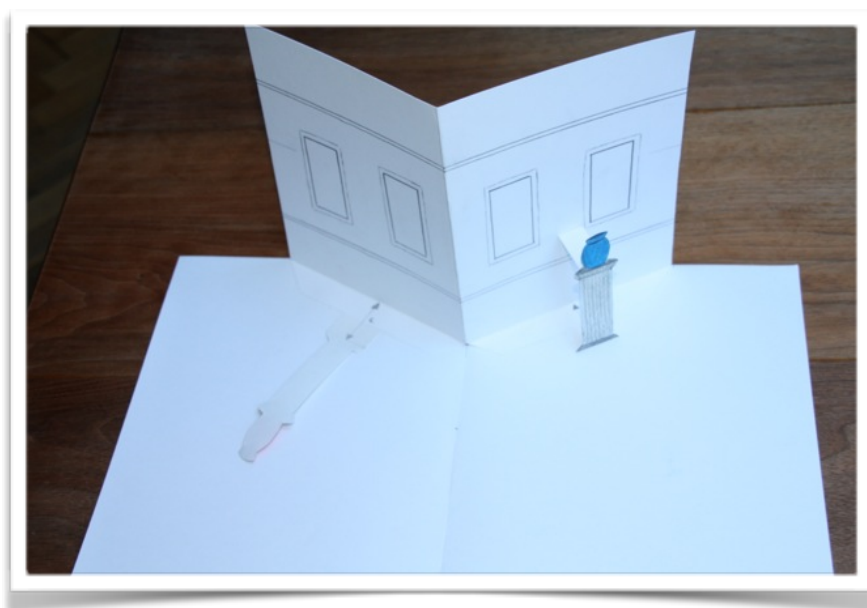
A tab is fixed to the back of the vase that has the same distance. This means that when the other tab is glued to the background pop-up it will form a rectangle when erected, and a parallelogram when collapsed.



The

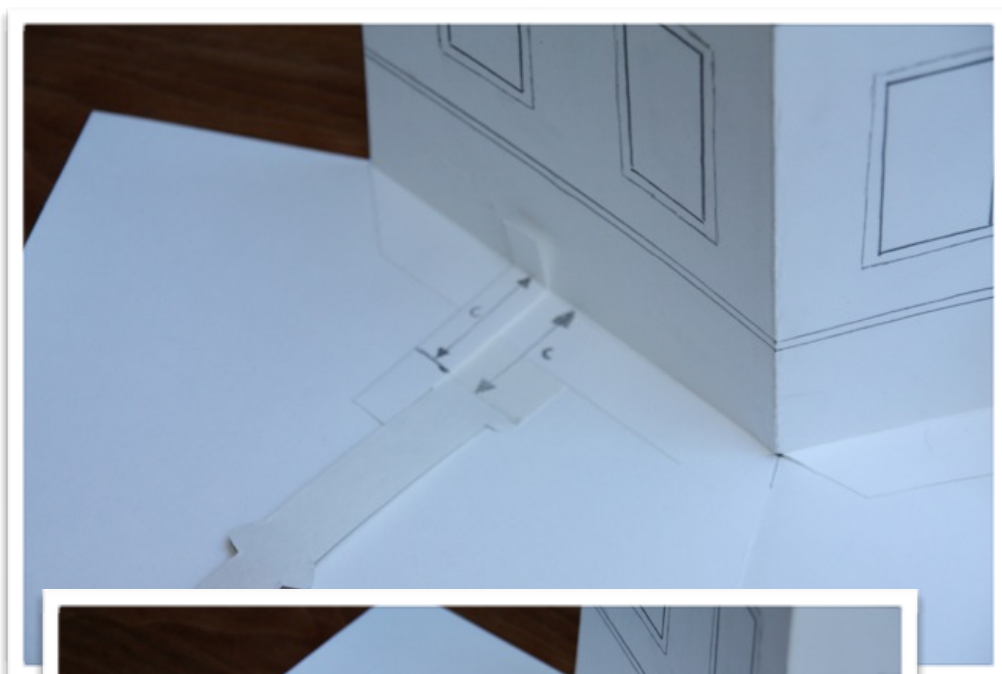


same thing

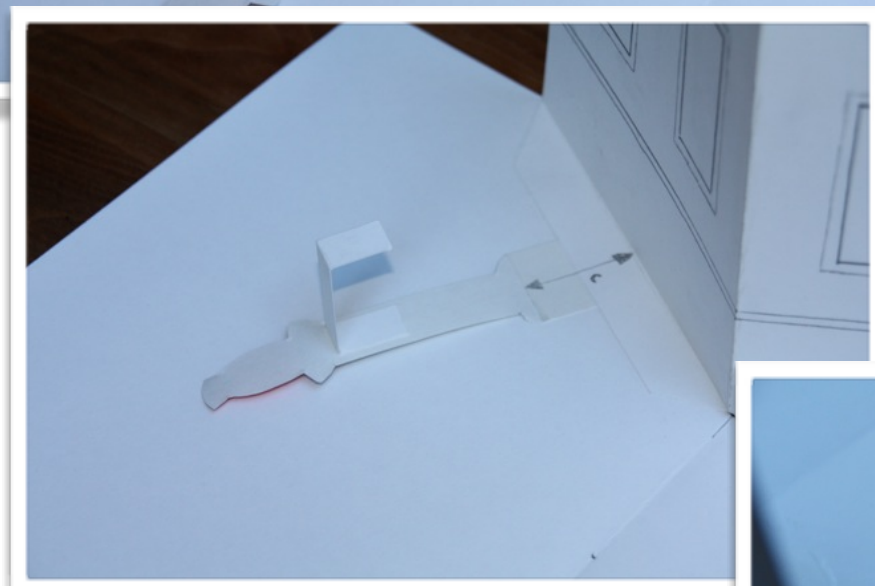


The vase stands up because the distance from the base of the background to the base of the vase is the same as the distance of the card that joins the back of the vase to the wall of the background.

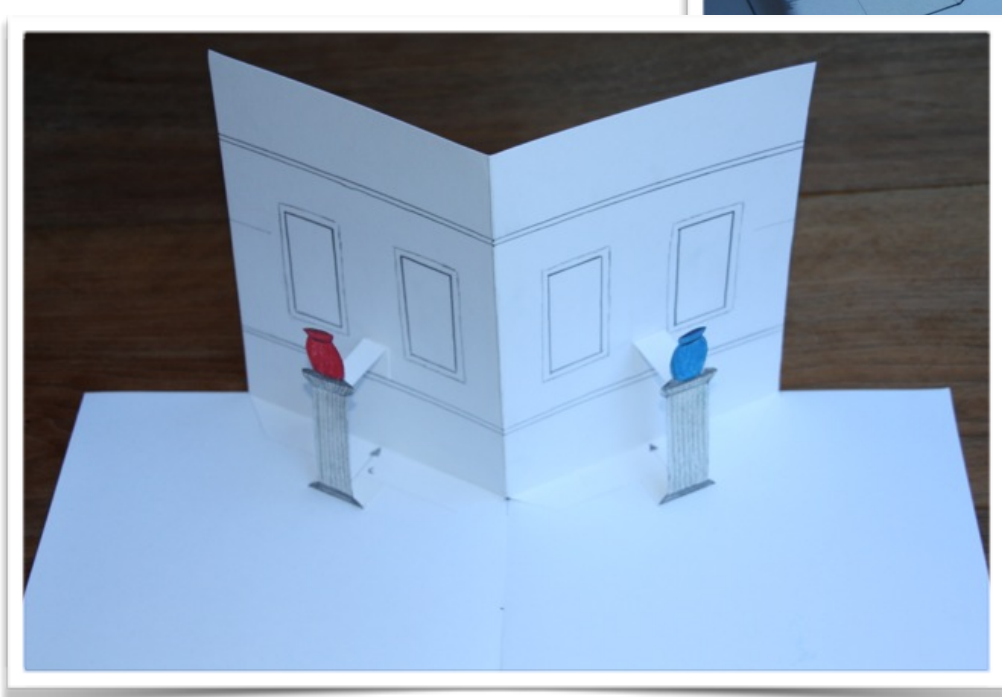
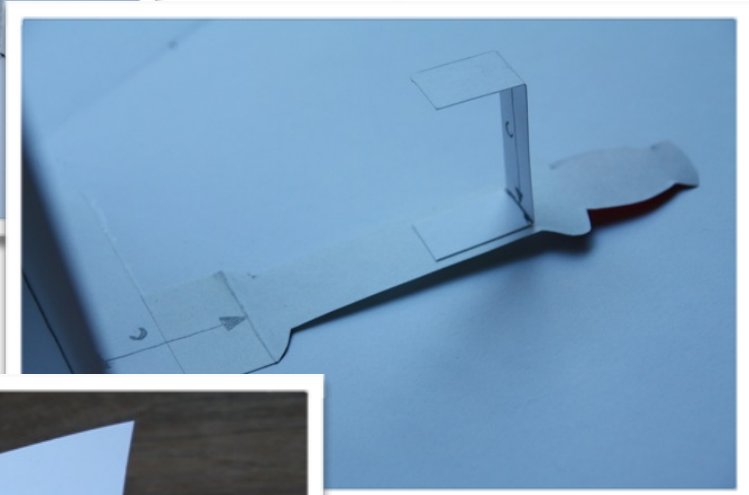
is then done to the red vase:



Make the joining piece with the distances equal.



Attach the joining piece.



## 2.Creating

Two vases attached to a right angled V-fold using parallelograms.

display pop-ups using

parallelograms.

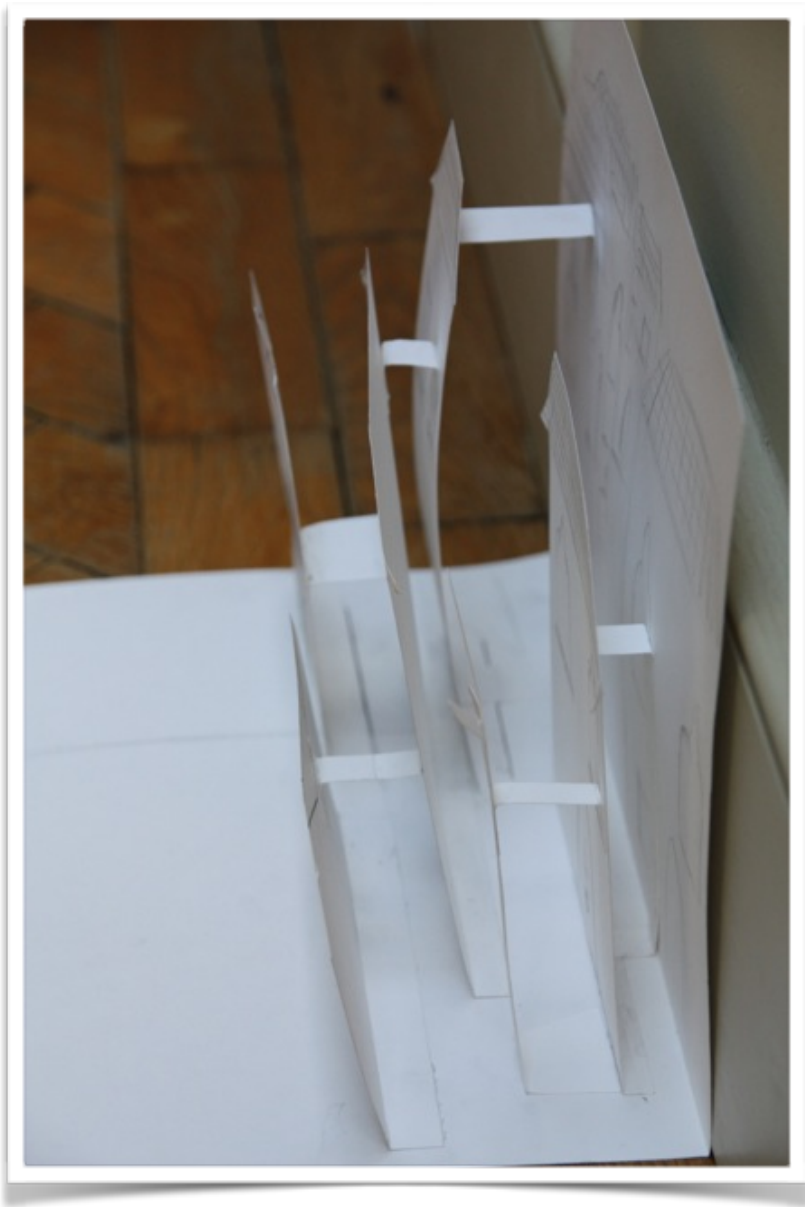
Display pop-ups only half open and are ideal for display because the back can be fixed to the wall and the base will be horizontal. The method shown relies on parallelograms being formed with the back. The principle of the parallelogram is identical to that shown above.

For Romeo and Juliet this principle could be used to create backgrounds like Verona or a garden with an orchard. Equally they could be used to create a cast of characters (where the pop-ups are the characters).



Front View



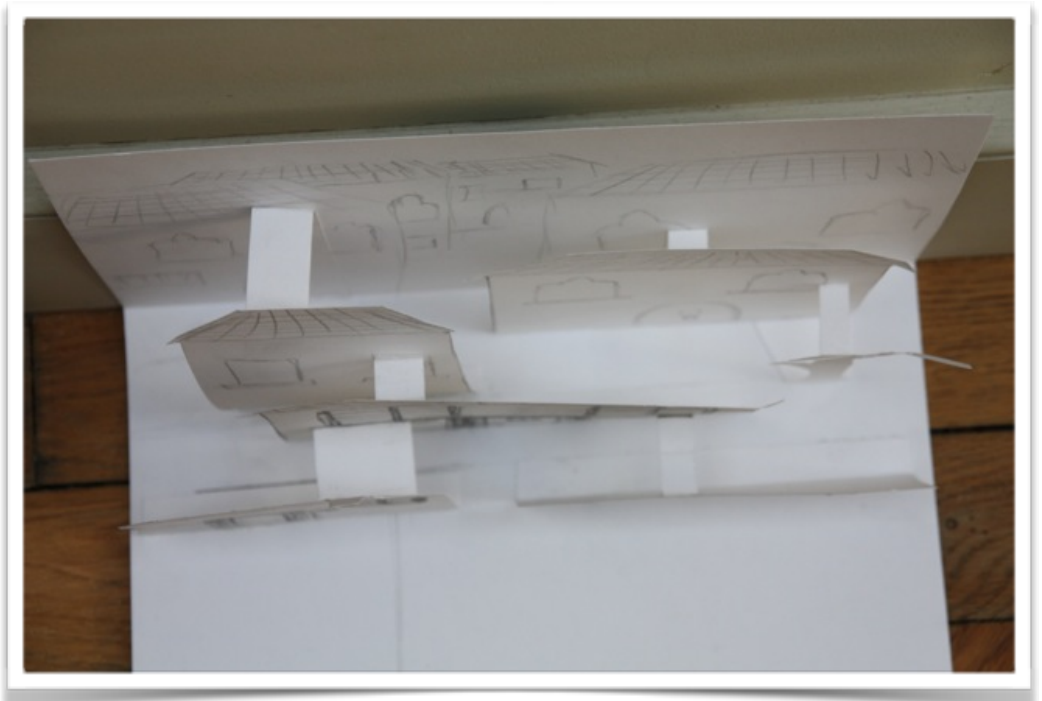


Side view:

You can see that some of the parallelograms have sagged. This is due to using card that is too thin.

Looking down:

The different layers can clearly be seen attached using cardboard joins that are the same length as the distance from the base of the piece to what it is fixed to.



This technique could be used to create relatively simple but very effective displays.



## Session 3:

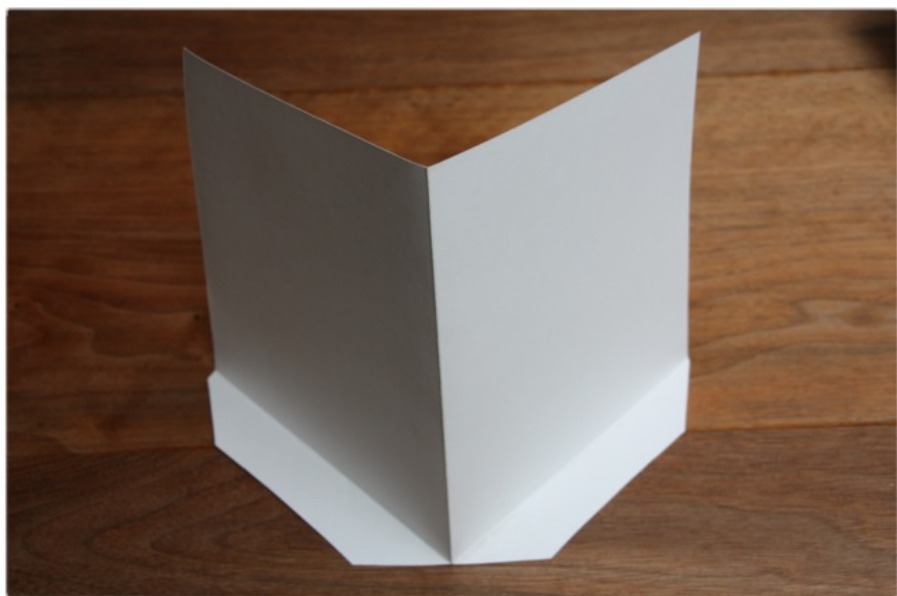
The angled V-fold.

This technique is very similar to that learned in session 1, the only difference being that the finished pop-up is tilted either towards or away from the viewer.



Pop-up card is folded in half but the fold at the bottom of the card is made at an angle. This will lean back because the fold at the bottom is at an acute angle from the centre fold.

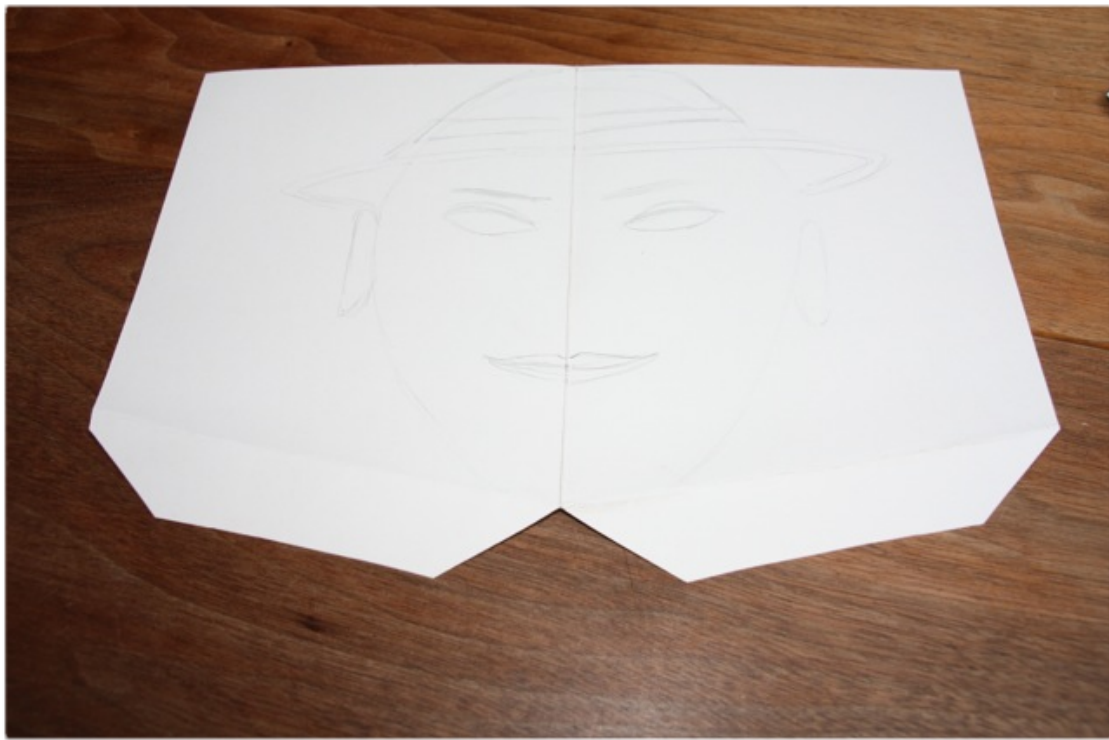
The two tabs are cut so that they are a bit neater.



The resulting pop-up will lean back.

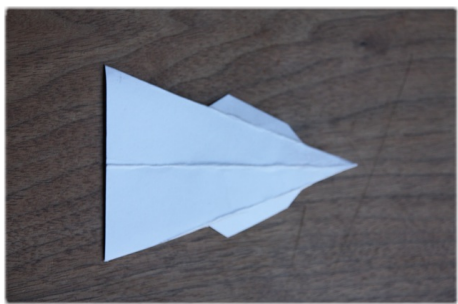
I will outline two different types - the first is more simple and can be used to make a portrait, the second is



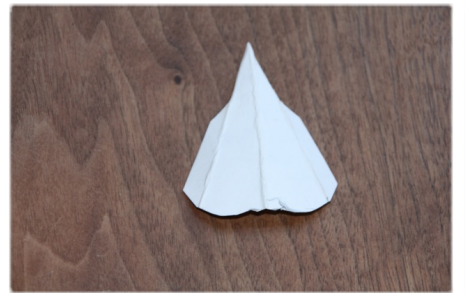


When opened out and laid flat, a design can be drawn on.

more complex and can be used to create action scenes.



A nose can be fashioned too!



Everything is coloured in.





The face is cut out and glued on one tab, with the fold in the pop-up touching the fold on the base card.

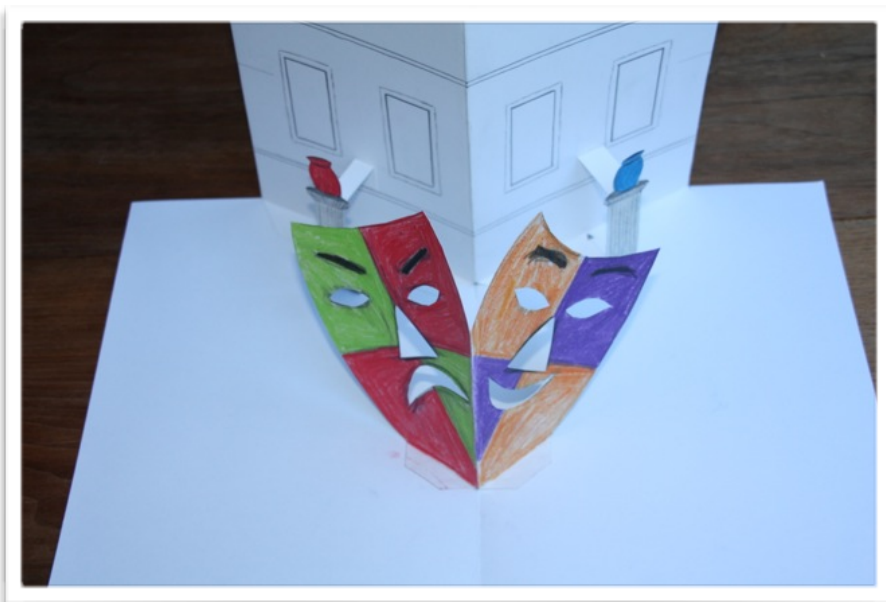
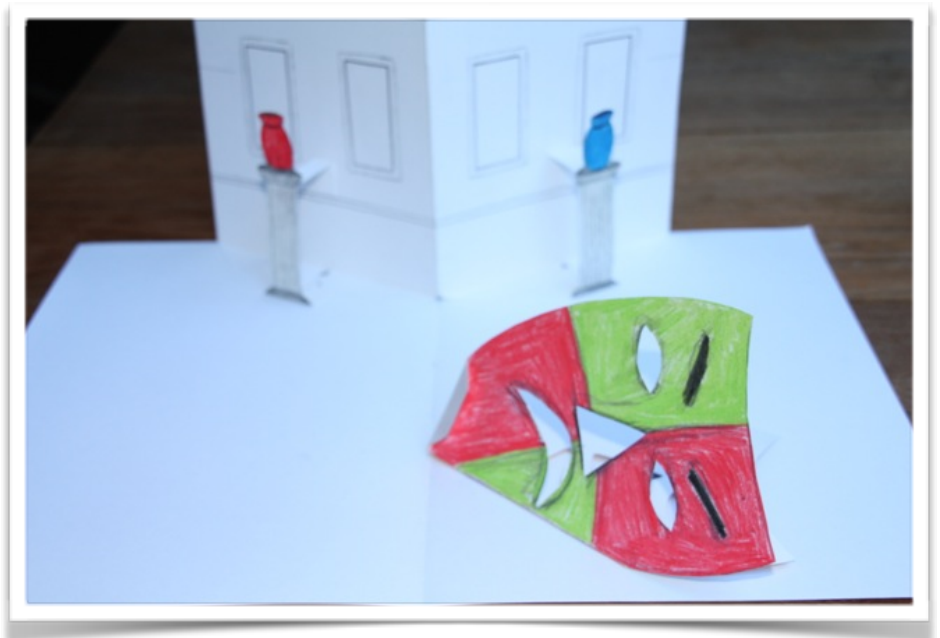


The other tab is then glued, the base card folded over and the result is a pop-up portrait.



Using an identical principle the masks were created...

Glued in at an angle.



To create a mask in the foreground of this pop up.

Using a similar idea

this fight scene from the market was created. The design works because there is a join at the bottom and at the top. When making designs like this it is important to make sure the pop-up piece is connected.

Cutting out the design requires a sharp craft knife and a cutting mat. Depending on the age and ability of the students it might be advisable for an adult to supervise and / or doing the cutting themselves.



It would have been easier to fix if the tabs had been cut so that they still joined.









## Session 4:

### Combining all the elements.

In the project overview I suggested that this pop-up project could be incorporated into story telling. Depending on whether the project is a collaborative effort of the the whole class or a group, or whether these are treated as individual projects the story telling principle can be applied.

### Scenes:

If students wish to write in character or about particular scenes then they could do this and attach their writing to the base of the pop up, so that the writing was an integral part of the pop-up scene. Alternatively they could create simple books with a pop up at the front, the middle and the back and all the writing on the other pages.

### Whole play:

If a synopsis of the play is created that lists all the different scenes and which characters are involved, then a list of pop-ups could be made and the whole class could undertake that as a project.

This would obviously require collaboration. If the scenes were distributed to individual students or groups then they could create the scenes and accompanying writing and the scenes could be collected together to make a book or display.

Once the students have mastered the three techniques they will have the tools to make many different scenes and situations. Many will have had their appetites for pop-up whetted and they can find many other techniques and projects on the internet and in books.

The images below are some of the scenes that I created in developing this project.

If I had more time I would have liked to create a scene at the ball with characters dancing, a scene that included a kiss, the marriage scene, Juliet apparently dead in Romeo's arms and a few more...



Romeo fights and kills Paris outside Juliet's tomb.

Romeo hides while Juliet delivers her monologue on the balcony.



**Nick Turner**



Two  
Capulets  
start a fight  
with a  
Montague  
and set the  
play in  
motion.

Happy marking, measuring and folding - and good luck!