

Museums & Galleries NSW

Box Making for Collection Items

Boxes are useful for storing collection items. They provide protection against the elements, buffering against changing relative humidity, make it easier to transport items from one area to another and allow lightweight collection items to be stored stacked on a shelf.

It is possible to purchase pre fabricated boxes out of either archival grade board or polypropylene. The advantage of this is that you don't need to have the equipment, space or time to make them yourself and it is easier to stack things which are a standard size and shape. The disadvantage is that they are more expensive than making your own, objects do not come in standard sizes and you may end up wasting a lot of space or damage collection items trying to fit them into standard sized boxes.

There are a number of materials and methods for making boxes. Most commonly, boxes are made from archival grade corrugated board which comes in a one and two ply thickness, commonly called "Blue Board" because it has a bluish tinge. Boxes are also made from acid free board, corflute (corrugated polypropylene) and Foamcore (a display board with polystyrene interior). The boxes can be adhered using an archival grade adhesive (such as neutral pH PVA), an archival grade hot melt polyethylene adhesive or gummed linen tape.

Generally the box will require a lid. These can be separate or attached. By being attached the lid cannot be lost, however, it will require more space to be opened up and can become extremely cumbersome with larger objects. When designing your box, think about how you handle the object- are you going to lower it into the box from the top or will it be necessary to have a drop down side so that the object can be placed in from the side. Will you want to tie the object onto a slide out tray?

A simple lidded box

This box is either rectangular or square and is intended for items which can be placed in from the top.

1. Measure up the object to be boxed (record: length, width/depth and height) always rounding up to the nearest full centimetre. Be generous with your measurements, if there is a fine feather protruding out of the top measure to the end of this. Make sure the dimensions are taken in the same orientation that you are going to store it in. That is, if it is going to be stored resting on its longest side, this will be the length of the box.
2. Add 5cm to each measurement.

Fact Sheet

3. The dimension of board you will need is (the length of the box plus twice the height) x (the width/depth of the box plus twice the height)
4. Draw out the dimensions of the board using a pencil and ruler (it is preferable to use a metal ruler as this will not be damaged during the cutting process and they are generally a bit heavier)
5. Check your measurements. You can place the object in the centre of the board to see if it looks right.
6. At each corner of your plan there will be a square/rectangle which will fold around to secure the box. One side will be cut and the other creased to allow it to fold. Decide which way you want it to fold. Remember museum boxes always have the folds on the outside to prevent flaps catching on delicate objects.
7. Generally it is best to have the folds overlapping the longer edges. Mark out which lines are to be cut through and which are to be creased.
8. Using a sharp knife and a metal ruler, cut through the board, ensure you have a cutting board or a thick board underneath where you are cutting. If you are using the triple ply board, you will need to make several cuts to get all the way through.
9. Pare off the top layer of board in the area of the flaps. This is done using a combination of hands and the knife, take care only to remove one layer at a time, until you are left with a single layer of card.
10. Using either a bone folder or the back of a pencil, score through the fold lines for both the flaps and the sides of the box. If you are using a thicker board, you can cut through the upper layer of the board, take care not to cut all the way through.
11. Fold both the flaps and each side wall over flat and run a blunt instrument (such as a bone folder) over the back to enhance the crease.
12. Taper the sides of the flaps by cutting with the knife.
13. Apply the adhesive to two of the flaps at one short end and paste onto the exterior side wall. If you are using a PVA adhesive these will need to be secured while the adhesive is setting. This can be achieved using pegs, bull dog clips, clamps or by lying on one side with weights on top of the flap.
14. Repeat the process at the other end of the box.
15. The lid is made in the same manner as the base. It is always a good idea to remeasure the box to make the lid as there can be discrepancies in the dimensions of the box. Remember that if you are making a long narrow box, it will bow in the centre and this will need to be taken into account. The lid should be 0.5cm wider than the box in all sides.
16. The walls of the lid should come down over the box at least 5cm, this can vary according to the dimension of the box being made.