

DESIGN BRIEF – Sustainable Shopping Bag

STATEMENT OF INQUIRY

Functional products are required by communities to improve sustainability and reduce the human impact on the environment.

BACKGROUND TO THE PROBLEM

Single use plastic bags have been increasingly polluting the environment since their invention. Plastics are usually made from petroleum, and when these are discarded, they end up buried in land fill or in our waterways, polluting the ocean. As plastics break down, they release toxic chemicals into the environment which affect our food and water supplies. Recently, the Australian Government has implemented a ban on single use plastic bags, which have been rolling out in supermarkets and large shopping centers.



YOUR BRIEF

You are a designer tasked with designing a sustainable shopping bag that is appealing to the community who will use the bag, and be created from sustainable products.



The objectives of this project are to follow the production plan to design, produce, decorate and evaluate a sustainable shopping bag. Throughout this project, you will be required to:

- follow the production plan supplied, reading ALL instructions,
- design and produce a screen-print for one side of your bag,
- design and produce an applique for the other side of your bag,
- produce your bag,
- use only calico and discarded fabrics to complete this process, and
- evaluate your product and production process.

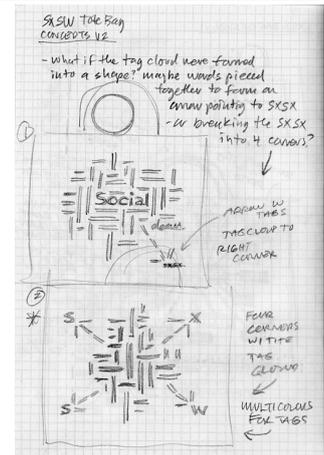
Production Plan and Management

Week	Design and production goals	Process notes	Complete
1	<ul style="list-style-type: none"> • Design both sides of your bag, including your applique and your screen print (Step 1) • Cut your fabric pieces (step 2) 		
2	<ul style="list-style-type: none"> • Produce the applique (step 3) 		
3	<ul style="list-style-type: none"> • Produce the screen print (steps 4-5) 		
4	<ul style="list-style-type: none"> • Learn to use the overlocker • Sew your bag (steps 6-7) • Sew your strap (steps 8-9) 		
5	<ul style="list-style-type: none"> • Finish any incomplete production work. • Evaluate your finished bag (step 10). • Your bag is now due for assessment. 		

DEVELOPING IDEAS

Step 1: Design your sustainable bag

- In your project book, design three different bag designs you might like to apply on your sustainable shopping bag. These can be designed with sustainability in mind, or with the end user (community) who will be using the bag to make it appealing for use.
- Show your teacher your three design options and discuss their suitability for applique and screen print.
- Choose your final design and redraw it in detail with annotations.



CREATING THE SOLUTION

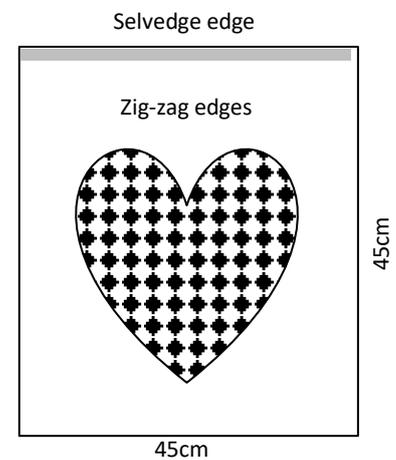
Step 2: Cut out your calico fabric pieces

- Cut 1 piece of fabric 45cm X width of fabric (WOF)
- Cut 1 piece of fabric 12cm X WOF
- Take your bag piece (45cm X WOF), fold in half and iron. Cut this into two pieces. One side of your bag will have your applique and the other side will be screen printed.



Step 3: Produce your applique

- Trace your applique design onto your fabric. Cut out your design using dressmaking shears.
- Pin the fabric pieces onto one side of your calico bag fabric (make sure it is facing the right way for the finished bag – your piece of fabric should measure 45cm across, and 45cm high). Also make sure you leave enough room for seam allowance and the hem at the top of the bag.
- Use a zig-zag stitch to sew your fabric onto your calico, being careful to remove pins as you go, and making sure you do not sew over the pins.



Step 4: Prepare your screen print

- Trace your design onto a separate piece of A4 paper. Using extreme care, use the sharp blades and cutting knife to cut out your design, see your teacher for a demonstration.
- Attach your stencil with masking tape to the underside of the screen. It is best to ask your teacher for help with this step. NOTE: the image needs to be in reverse on the screen so when you turn it over it's the right way to print.
- Place a plastic sheet on the table. Lay your fabric flat on the table, making sure it is smooth and free from creases. Lay the screen flat over your bag.

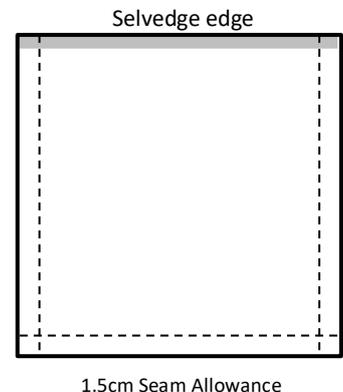
Step 5: Produce your screen print

- With your partner holding your screen firmly in place, put 3 heaped dollops of ink on the screen evenly across the width of the screen above the image
- Hold the squeegee at a 70 degree angle and pull the ink toward you firmly. The ink needs to evenly cover the entire stencil.
- Push the ink back across the screen away from you (towards your partner).
- Pull the ink back down towards you one more time to get rid of the excess ink.
- Remove the excess ink from your screen and put back into the ink pot.
- Carefully lift up your screen, and immediately remove the stencil from the screen and place in bin. Clean all the equipment and leave out to dry on the racks.
- **Once your screen-print is dry, you need to heat set the ink by ironing for five minutes.**



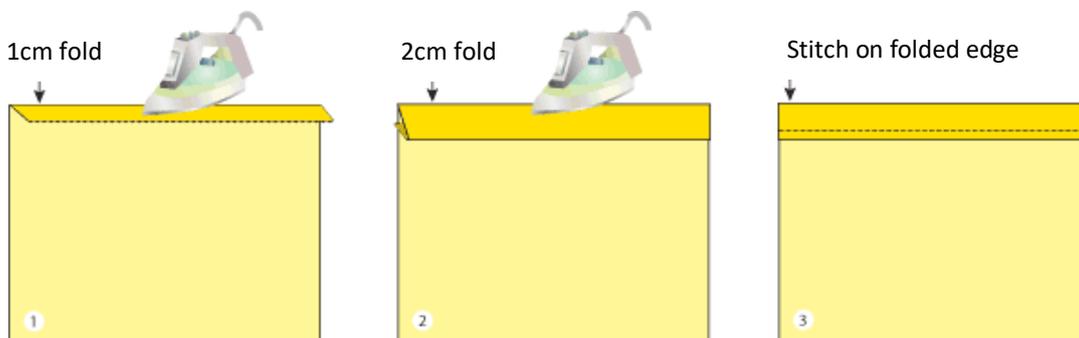
Step 6: Sew your bag

- Take your two bag pieces (45cm X 45cm) and put them RIGHT SIDES TOGETHER and pin them together (applique and screen print should be on the INSIDE of the bag for sewing).
- Using a ruler and tailors chalk, mark your 1.5cm seam allowance down each side of the bag that requires sewing (leave the top 45cm selvedge edge end open). Make sure your applique and screen print are the right side up! The opening of your bag should be at the top of your design, not below it.
- Sew and overlock down each side and the bottom of the bag



Step 7: Hem the top of your bag

- Keep your bag inside out for this step.
- Turn down the top of the bag by 1cm – make sure the turn is towards the wrong side of the bag, and iron in place.
- Turn down the top of the bag again by 2cm – iron in place.
- Pin the hem around the top of the bag.
- Sew close to the folded edge the whole way around the bag. Trim any loose threads.
- Turn bag right way around and iron seams neatly.



Step 8: Sew your strap

- Take your strap fabric piece (12cm X WOF) fold each one in half lengthways, and iron.
- Open the fabric out and fold each edge into the middle of the fabric (where the ironed crease is), and iron both sides.
- Fold strap back in so each strap has four layers, iron and pin in place.
- Top stitch down each side of the strap.
- See <http://alamandatextiles.weebly.com/how-to-sew-a-bag-strap.html> for YouTube tutorial or scan the QR code.



Step 9: Sew your strap onto the bag

- Turn your bag inside out again for this step.
- Pin the strap in place so that the strap is equally placed over the side seams on the INSIDE of your bag, pin into place.
- Sew the strap on by sewing a square around the inside square where the strap joins the bag, then sew an X pattern to ensure strength, as shown to the right.



EVALUATING

Your brief was to develop a sustainable shopping bag which included a screen print and an applique. How successfully did you complete this brief – explain your answer?

Describe your biggest achievements during the completion of this project.

Describe your issues/difficulties during the completion of this project.

What could you have done differently to improve your work? Why would you change this aspect?

How could you improve your practical work and time management during this process?

On a scale of 1 to 5, 1 being less than satisfactory and 5 excellent, how would you rate the different aspects of your work? (please circle a number).

	Less than satisfactory				Excellent
Bag construction	1	2	3	4	5
Screen print	1	2	3	4	5
Applique	1	2	3	4	5
Function	1	2	3	4	5
Aesthetics	1	2	3	4	5

Explain why have you given these scores? How could these aspects be improved in future work?

Overall, are you happy with your product? Why/why not?

Write a reflection on your process

Yr 8 Sustainable Shopping Bag Rubric

Name: _____

	C. Creating the solution	D. Evaluating
7-8 A	<ul style="list-style-type: none"> • Demonstrates excellent technical (sewing and overlocking) skills. • Follows the instructions independently. • Product functions as intended. • Product is presented excellently. • Completes applique and screen print to excellent standard. • Demonstrates excellent time management. 	<ul style="list-style-type: none"> • Completes the evaluation to an excellent level. • Self-reflects on issues and achievements. • Lists and evaluates several ways in which the product could be improved. • Describes how they would go about achieving the improvements, verbalising their reasons. • Excellent justification of self-evaluation scores.
5-6 B+	<ul style="list-style-type: none"> • Demonstrates competent technical (sewing and overlocking) skills. • Product mostly functions as intended. • Product is presented appropriately. • Completes applique and screen print to a competent standard. • Demonstrates competent time management. 	<ul style="list-style-type: none"> • Completes all aspects of the self-guided evaluation of the product to a sound level. • Lists at least two ways in which the product could be improved. • Describes how they would achieve the improvement. • Sound justification of self-evaluation scores.
3-4 B	<ul style="list-style-type: none"> • Demonstrates satisfactory technical (sewing and overlocking) skills. • Product partially functions. • Product is adequately presented. • Completes applique and screen print to a satisfactory standard. • Demonstrates satisfactory time management. 	<ul style="list-style-type: none"> • Adequately completes the evaluation. • Lists at least one way in which their product could be improved. • Minimal explanation of achieving improvements. • Adequate justification of self-evaluation scores.
1-2 C	<ul style="list-style-type: none"> • Demonstrates minimal technical (sewing and overlocking) skills. • The product is non-functional or incomplete. • Does not include applique and screen print. • Demonstrates minimal time management. 	<ul style="list-style-type: none"> • Briefly completes the evaluation. • Does not critically review their work. • Brief justification of self-evaluation scores.
0 D	<ul style="list-style-type: none"> • The student does not reach the standard identified. 	<ul style="list-style-type: none"> • The student does not reach the standard identified.
Score		