**Investigation Experiment**

**Aim:** To determine the most durable and convenient method for children to open and close pockets.

<table>
<thead>
<tr>
<th>Method</th>
<th>Conclusion</th>
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</table>
| 1. Metal press stud | • Poor durability  
• Hard to open and close  
• Easy to apply to fabric  
• Securely fastens |
| 2. Magnetic closure | • Good durability  
• Easy to open and close  
• Easy to apply to fabric  
• Securely fastens |
| 3. Velcro | • Poor durability  
• Easy to apply to fabric  
• Medium difficulty and security to open and close |

**Materials Experiment**

**Aim:** To determine the most suitable material that creates vibrant, pastel colours and transition smoothly together.

<table>
<thead>
<tr>
<th>Method 1 &amp; 2</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wet fabric</td>
<td></td>
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</table>
2. Mix together textile medium and watercolour or paint  
3. Apply to fabric  
5. Repeat with other material |

**Method 3**

1. Wet fabric  
2. Apply dye on fabric  
3. Heat set fabric

**Conclusion**

1. Watercolour: Excellent pastel colours and transition between colours  
2. Paint: Medium pastel colour, transition between colours  
3. Dye: Poor pastel colour and colours mixed together through transition

**Justification**

I have chosen the magnetic closure as it was a convenient size for children to use, with excellent durability and security. The magnetic closures were easily applied to the thick fabric, and opening and closing the closure was effortless. Furthermore, its visual appearance excelled, compared to the Velcro and metal press stud as it created an elegant touch to the piece.

**Modifications to MTP**

Because of this experiment, the factor of elegance and visual appeal was something I considered. The magnetic closures were highly appropriate, functionally and aesthetically, which thrilled me to make sure my whole project was visually appealing, and convenient for the user.

**Aim:** To determine the neatest and most time efficient font for machine-embroidered letters

<table>
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</table>
| 1. Prepare fabric, with tear-away backing and embroidery hoop  
2. Draw design  

**Conclusion**

1. Neat, fastest to do out of the three  
2. More time consuming, less neat  
3. Too bulky, medium time.

**Manufacturing Processes Experiment**

**Aim:** To create tight and firm embroidery and time efficient.

<table>
<thead>
<tr>
<th>Method</th>
<th>Conclusion</th>
</tr>
</thead>
</table>
| 1. Size 1 embroidery needle  
1. Thread yarn through needle  
2. Sew line |
| 2. Size 3 embroidery needle  
1. Thread yarn through needle  
2. Sew line |
| 3. Size 5 embroidery needle  
1. Thread yarn through needle  
2. Sew line |

**Justification**

Due the time constraint on my MTP the first method is most suited, as it was quick to produce, and visually neat. The other two, were too fancy for my piece, as it wanted to keep it simple and not too complex for the children to read.

**Modification to MTP**

This experiment has allowed me to realise that embroidering smaller letters is difficult, so the design will need to have bigger letters, which also makes it easier for the kids to read.

**Equipment Experiment**

**Aim:** To determine the most appropriate needle size to create tight and firm embroidery and time efficient.

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</table>
| 1. Size 1 embroidery needle  
1. Thread yarn through needle  
2. Sew line |
| 2. Size 3 embroidery needle  
1. Thread yarn through needle  
2. Sew line |

**Justification**

The size 5 needle was the most appropriate for the end-use of the product, though it took longer to thread the yarn through the eye, as the other two needles, it passed through the fabric easily and did not create a large gap. The yarn was not loose in the fabric, and could withstand abrasion.

**Modification to MTP**

From this experiment, I discovered that embroidering larger designs like flowers and leaves to be efficient on my major textile project, rather than small, intricate elements.
Aim: To determine the most suitable stitch to use for applique on wet-felt clouds, to create neat outline that is not too noticeable on felt.

Method:
1. Create wet felt
2. Cut shape of cloud out of felt
3. Pin to fabric
4. Sew straight stitch around shape or
   - Blanket stitch
   - Zig zag stitch

Conclusion
1. Straight stitch
   Neat outline, easy to sew, not too noticeable on felt
2. Blanket stitch
   More time consuming; medium difficulty, not neat as noticeable on felt
3. Zig zag stitch
   Not very neat; slightly noticeable on felt, easy to sew

Aim: To determine best wool for cloud designs for a smooth and even appearance.

Method:
1. Gather wool for felting
2. Needle-felt onto fabric until desired texture

Conclusion
1. Silk: Difficult to felt, visible holes, rigid appearance
2. Corriedale: Easy to felt, medium smoothness, slightly visible holes
3. Natural: Easy to felt, excellent appearance and smoothness
4. Combed: Fuzzy appearance, medium difficulty to felt, rough

Aim: To determine the most effective method to create durable and aesthetically pleasing flower with hand embroidery.

Method:
1. Sketch flower design on fabric
2. Hand embroidery design

Conclusion
1. Daisy stitch
   Poor durability, medium appearance, looks too plain, time consuming, inconsistent petals
2. Satin stitch
   High durability, medium appearance, time consuming, inconsistent petals
3. Picot stitch
   High durability, medium difficulty, medium time to create, unique textured appearance, even petals

Justification
The straight stitch proved to be the most effective method, with the stitch being neat without drawing too much attention, so the felt was still the focus. The stitch did not take too much time, helping with the time constraint of my project. The blanket stitch was too big and noticeable, and took more time. As well as the zig zag stitch resulting in poor neatness.

Modifications to MTP
The process of this experiment informed me that the consistency of cloud sizes is difficult, resulting in my ideas of the cloud design shifting. Instead of being the same size, I have changed each cloud to be different sizes.

Justification
From this experiment, the merino and natural wool is proven to be the best I have chosen two, as it will be slightly harder to find natural wools, therefore the dyed Corriedale wool can compensate. Both materials produced a smooth handle and appearance, as well as ease of felting.

Modification to MTP
The Corriedale and natural wool provided the smoothest appearance, however, the combed could be used for areas that experience abrasion, as it is more resilient.

Justification
Both the walking foot and zipper foot were excellent at sewing through the thick fabric of my bag. As the walking foot is only available at school, the alternative of a zipper foot would be used when at home.

Modification to MTP
When joining my bag together, there will be many layers of fabric, therefore, the modification of using a mixture of thin and thick fabrics to ensure the sewing machine can stitch my bag together.

Justification
The sew on interfacing produced the most support to the pleat, as it was thicker and harder, therefore proving to be the most appropriate.

Modification to MTP
The iron on interfacing produced a much thinner fabric, which would be appropriate for the interfacing between the season's book, as I do not want the book to be too fat.