



Year II



Food and Textiles Technology

Food And Textiles Technology

Year 11 Book Two



GOVERNMENT OF SĀMOA MINISTRY OF EDUCATION, SPORTS AND CULTURE Acknowledgements

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Thanks also to the Alexander Turnbull Library, National Library of New Zealand, Te Puna Mātauranga o Aotearoa for the photograph in Figure 1.1:

Ref. PA7-01-14 Portrait of three Sāmoan girls, Thomas Andrew, 1855-1939

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INTRODUCTION

Talofa,

If you are a secondary school student studying Food and Textile Technology at Year 11, this book has been written for you.

It has been designed to help you build on the knowledge and skills gained in Year 9 and 10 Food and Textiles Technology.

Part One of the book covers information on **Design And Textiles**. The first unit focuses on the important role colour plays in our lives and the effect it has on our 'soifua mālōlōina'. The cultural significance, the psychological effect and the optical illusions different colours can create are discussed in depth. The colour wheel and colour schemes are explored to increase awareness of how to best use colour when creating designs for fabric.

In the second and third units different ways of adding colour and texture to fibres used in Sāmoa are covered, beginning with the early technological practice of siapo making. There is an opportunity to use and evaluate natural and synthetic dyes. The different textures that can be achieved in the making of fine mats and creating different appearances with sennett are also described.

The fourth and fifth units focus on textile printing. The experience gained from the Year 9 Book, using basic block printing, is extended to stencilling, screen printing and roller printing. There is an opportunity to complete a design brief for one of these methods of printing. This is preparation for a another design brief in the last unit on textiles, which incorporates a teenage garment and fabric printing.

Plain weaving, explored in the Year 9 book, is extended to twill weaving in unit six. If your school was unable to offer a Textile course in Year 9 and 10 you will find the background information covered in the Food and Textile Technology Books written for each year level very useful.

Part Two of the book covers information on **Consumer Responsibilities**. Goal setting, time management, decision making and advertising are all explored. The last unit in the book covers customer service. Each unit in the book begins with a list of words. The meanings of these words are given to you in the glossary at the back of the book. There are activities throughout the book for you to complete individually or in groups.

As you journey through this book you will discover exciting aspects of textile technology that you will be able to apply to practical projects.

Unit 1: THE COLOUR WHEEL AND THE EFFECT DIFFERENT COLOURS HAVE ON PEOPLE

Words to learn: sepia vivid clarity preferences shades tints psychological harmonious contrasting optical illusion equilateral Colour plays an important role in our daily life. It is something we can take for granted. Have you ever looked at old black and white or sepia photos of your ancestors and thought how much more the photo could tell us if it were in colour?





Three girls in traditional Sāmoan dress. This photograph was taken in the 1890s. [Alexander Turnbull Library]

When you look outside your classroom window you see various shades of brown in the earth, numerous shades of green displayed in the grass and foliage, and a variety of blues in the sky. If the sun is out the colours will be more vivid and alive, but if the clouds appear the colours will lose their clarity.

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Did you know?

- Colour can enhance our soifua mālōlōina.
- Different colours bring out different feelings and emotions in us.
- We often have favourite colours that make us feel good.

When it comes to choosing clothes for ourselves or others and textile items for the home or workplace, colour is one of the factors after cost most likely to influence our decision about what to buy.

Colour appears to affect humans in psychological ways. The colour we are wearing can send signals to others about the way we are feeling. If a person does not feel very vibrant one day they may avoid wearing a red top and find something that is not as striking, maybe dark blue or dark green.

Colours have cultural significance too. White is seen in many cultures to signify purity and that is why it is associated with weddings and going to church. A congregation wearing white clothing creates an atmosphere of peace and serenity. In contrast black is seen by many people as a sober colour, worn at formal occasions. Many cultures wear black as a sign of mourning at the time of a loved one's death.

Did you know?

■ Some colours can create illusions: *e.g. Appear to increase or decrease size*. Look at the two squares below. Which one looks smaller?



Figure 1.2 *Optical illusion.*

Activity 1 The Importance Of Colour – A Pair Share Activity

This activity should help you understand the importance of colour in our lives.

- With a partner, discuss your favourite colour/s explaining why the colour/s you like are special to you.
- Share what you discussed with another pair of students.

After the discussion, your teacher will carry out a popularity poll to find out which colours are most popular with the class and why.

This is an activity you can explore further with family members. You might like to carry out a survey of your family to find out what each member thinks about colour.

It would also be interesting to see if you can find out if colour highlights differences between people of different cultures.

Close-up Of The Colour Wheel

Having explored the part colour plays in our lives it is important to understand how colour is created. We can do this best by studying the colour wheel.

Did you know?

- The colour wheel is based on the rainbow.
- Can you remember which order the colours go in?

When you look at a rainbow you may wonder where the colours white and black are? The answer is that these are not technically considered to be colours although we refer to them by that name. Instead the correct name for black and white is 'neutral'. They determine the 'value' of a colour. Adding white to a colour will make its value lighter. This creates a 'tint'. If black is added to a colour the value is darkened and a 'shade' is created.

Another term that is used to describe colour is 'intensity.' Pure colours from the colour wheel which have no black or white added to them are described as being 'intense', which means they are bright in colour.

All colours, however, are based on three **primary** colours — red, yellow and blue.

The colour wheel on Colour Page 2 (in the middle of this book) helps us understand the relationship between different colours.

To build a colour wheel you start with an equilateral triangle. (See the diagram on Colour Page 2.)

The three primary colours are placed at each point of the equilateral triangle.

Next, another triangle of the same size is placed upside-down over the first triangle to create a six-pointed star. This creates three empty points to fill with colour. The colours put inside each of these spaces are called **secondary** colours.

The secondary colours are created by mixing together equal parts of two primary colours and the new colour is placed inside the triangle between the two primary colours that have been mixed to make it:

Red	+	Yellow	= Orange
Red	+	Blue	= Purple
Yellow	+	Blue	= Green

The colour wheel continues to become even more varied as equal quantities of secondary and primary colours next to each other on the colour wheel are mixed together creating what are known as **tertiary** colours:

Yellow (primary)	+	Green (secondary)	=	Yellow-green
Green (secondary)	+	Blue (primary)	=	Blue-green
Blue (primary)	+	Purple (secondary)	=	Blue-purple
Purple (Secondary)	+	Red (Primary)	=	Red-purple
Red (Primary)	+	Orange (Secondary)	=	Red-orange
Orange (Secondary)	+	Yellow (Primary)	=	Yellow-orange

Activity 2 The Development Of Colour

This exercise should help you to understand how technological developments have given us a wider range of colours to choose from for our textiles. It should also help you appreciate the added interest that colour gives to our clothing.

- 1. In groups of three or four, look at the photo on page 7. Discuss the clothing being worn.
 - What colours do you think each person is wearing?
 - Do you think the colours would be different if the photo had been taken today?
- Working on your own, look at the black and white photo on the following page. Decide what colour you think each person is wearing. Discuss what you decided with a friend. Now, turn to the coloured version of the same photo on colour page 4 and check out your ideas.

Compare the similarities and differences you came up with.

3. Write two or three sentences expressing your findings from carrying out this activity.



Figure 1.3 *Coloured clothing.*

Colour Schemes

Did you know?

 A single colour will appear to have certain qualities and these qualities can change greatly when a colour is seen with other colours. Refer to Diagram D Colour Page 3.

Colour schemes that create a **harmonious effect** are close to each other on the colour wheel: *e.g. Orange and yellow*. The colours soften and subdue each other. This is known as an '**analogous**' colour scheme. Refer to Diagram B Colour Page 3.

A single colour is lightened by adding some white to it to create a 'tint': *e.g. Yellow becomes lemon.* It is darkened by adding black to create a 'shade': *e.g. Yellow becomes mustard.* This is known as a '**monochromatic**' colour scheme. Refer to Diagram A Colour Page 3.

Colour schemes that create a **contrasting effect** are made from colours that are far from each other on the colour wheel. When two opposite, or nearly opposite, colours are used side-by-side, they make each other seem brighter. This is known as a **'complementary'** colour scheme and the effect created can be very striking. Refer to Diagram C Colour Page 3.

When three colours that are opposite each other on the colour wheel are used together we call this a '**triadic**' colour scheme.

Using Colour Schemes

This exercise is to help you recognise different colour schemes and provide you with the opportunity to explore colour by working with just three colours and two neutrals.

- 1. Turn to Colour Page 3 and look carefully at the yellow square shown on its own. Now look at it placed inside a blue square and a red square. Putting two colours together creates a different effect. Name the two colour schemes created.
- 2. Take the opportunity to visit a fabric shop when you can, to look at the range of different colour schemes available. Pick twenty bolts of fabric and group them into the different colour schemes. Work out which colour scheme appears to be the most popular for Sāmoan fabrics.
- 3. Discuss the reasons why certain colour schemes are popular in Sāmoa. If you have any overseas magazines you may be able to compare colour schemes used here with those currently in fashion in other countries: *e.g. New Zealand, Australia, the United States.*



Figure 1.4 *Bartley Fabric store.*

4. Your teacher may have some fabric samples that you can cut up and label and put into your exercise book to illustrate the different types of colour schemes. Alternatively, you can look at the fabric designs in the photograph on Colour Page 1 in the middle of the book and try to name each colour scheme.

- 5. Working in a group of six, split into pairs.
 - One pair takes the two primary colours yellow and red and makes a tint and shade chart like the one on Colour Page 3. Make a least three tints and three shades for each colour.
 - The second pair takes the primary colour blue, and the secondary colour green, and makes a tint and shade chart as described above.
 - The third pair takes the remaining pair of secondary colours, orange and purple, and also makes a tint and shade chart.

Name the type/s of colour scheme created each time.

- 6. Another group of six can repeat this exercise with the secondary colours:
 - The first pair can take orange and purple.
 - The second pair can take purple and green.
 - The third pair can take green and orange.
 - The group that carries out this experiment will need to create the secondary colour first. To do this it will be necessary to mix equal parts of the two primary colours being used together: *e.g. One part yellow to one part red makes orange*.

What type of colour scheme has been created?

How many different colours have been created ?

- 7. Following the instructions above on how to make secondary colours, another group of students can create a large colour wheel for the classroom wall.
- 8. Another group of students can have fun illustrating the different effects and colour schemes that can be created by tracing over the boxes below and then filling in the shapes with different colours to create the following:
 - a. A monochromatic colour scheme.
 - b. An analogous colour scheme.
 - c. A complementary colour scheme.

An example can be seen on Colour Page 3.



Figure 1.5 Colour scheme effects. FOOD AND TEXTILES TECHNOLOGY X YEAR 11 BOOK 2

Unit 2: The different ways of adding colour and texture to fibres and fabric

Words to learn: synthetic particles immersion highlighting colourfast abrasion three-dimensional Until the nineteenth century, when William Perkins used technology to make the first synthetic dye from coal tars, dyes had been made from berries, plants, animals and insects. There is evidence that as far back as 1000 B.C. the Phoenicians (people who lived on the coast of the Mediterranean Sea) used to boil up shellfish from the sea to make a rich purple dye.

In the photograph on Colour Page 1 you can see how Nopele Hakai used purple pandanus in 2000 A.D. to create a striking woven mat. She made the purple dye by soaking purple carbon paper in water. The pandanus was then soaked in the purple solution before being woven into the mat. Nopele used technology to develop a dye for the pandanus she wanted to weave into the tapito.

As we explore the ways colour can be added to textiles it is important to understand how technological practice has been used for centuries in Sāmoa to make siapo (tapa cloth). This early Sāmoan form of decorating textiles will be explored fully in Year 12. For background on the basic designs used in siapo refer to Social Studies Year 9 Book Three.

Siapo

In this book we are focusing on how colour and pattern are added to base fabric to make siapo. This will help us understand the links between technological practice of the past and today.





Making siapo involves three processes of adding colour and pattern to the base fabric:

- ∎ Immersion (fui).
- Rubbing (elei).
- Freehand painting (tutusi or mamanu).

The pattern for the siapo is carved onto a piece of board called an 'upeti'. Upeti have been in use since before the papalagi came, and with modern equipment are now carved for commercial use.

The cloth, which is made out of u'a (the bark of the paper mulberry tree), is spread out over the upeti. Dye is rubbed on the upper surface of the cloth bringing out the design that has been carved on the upeti. Finally, freehand painting over the top of the design makes the pattern stand out.





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The dyes used to make siapo are:

- Red ('o'a, 'ele, and loa).
- Purple (from the cut trunk of the soa'a banana).
- Yellow (ago and lega).
- Black (from the candlenut [lama]).

Did you know?

- The whole family has a part to play in preparing candlenut dye.
- The women of the village are asked to help collect the nuts in baskets which are taken home.
- The men build a shed of coconut leaves that are closely woven together to prevent any air passing through. In the middle of the shed they build a fireplace using three stones.
- The women rub the stones with the hibiscus and particles of coconut husk. One woman remains in the shed to check the nuts as they gently roast over the fireplace.
- The next day when the nuts have cooled off, the women crack them open to reveal the rich black dye.

Did you know?

- You can create the primary colour yellow by boiling up onion skins?
- To make the yellow vegetable dye follow this method:
 - **Step 1** Take 250g of onion skins and place them in a large pot with 500ml of water and 2 tablespoons of salt.
 - **Step 2** Place the pot over heat and bring the contents to the boil and simmer for 30 minutes.
 - **Step 3** Strain off the onion skins. Bring the liquid to the boil again and simmer gently.
 - **Step 4** Dampen the fabric to be dyed and add to the dye solution and simmer for 30 minutes.
 - **Step 5** Remove the fabric from the dye and rinse until the water runs clear.
 - Step 6 Dry the fabric and note the results.

Commercial Dyeing Of Fibres And Fabrics

Commercial dyes are made from chemicals and many of the fibres used for clothing today are also made from chemicals. This means that manufacturers have to be particularly careful when deciding which dyeing process to use on each fabric because reactions between the dye and the fabric can happen: *e.g. A dye made from similar chemicals to the chemicals in a fabric could cause the fabric to dissolve!* This would be an extreme effect.

The more usual effects of using the wrong type of dye on a fabric would be:

- The dye washes out of the fabric because it is not colourfast (fixed).
- The dye does not resist perspiration or abrasion.
- The dye fades in sunlight.

Activity 4 Comparing Natural Dyes And Synthetic Dyes

The aim of this activity is to investigate different sources of dyes and to experiment with dyeing textiles using both a natural and a synthetic dye. You may use any of the following textiles:

- Pandanus.
- Fau.
- Cotton.

Before you start, talk to family members and refer to Food and Textile Technology Year 9 Book Three (page 30) to find out what plant and animal products are used traditionally to add colour and pattern to textiles.

After that, have a class discussion about what you have each discovered.

Depending on how many different types of natural dyes you have been able to find information about, work in small groups. Each group should use a different natural dye to carry out the following investigation:

- 1. Dye a piece of cotton, pandanus or fau using the natural dye and method of dyeing you have researched.
- 2. Remember to keep a sample of the original undyed fabric so you can compare results. (Label this piece 'control'.)
- 3. Use your dyed fabric to carry out some tests. Tests to try could be:
 - a. Leave the dyed fabric in the sun for a number of days.
 - b. Wash the dyed fabric in cold water.
 - c. Wash the dyed fabric in hot water.

4. Repeat the same tests with a cotton fabric that has been dyed with a commercial dye. It would be best if you can use the same colour.

Note: If you cannot find out how to make dye from a natural source, you can use the basic recipe for creating a yellow dye from onion skins given on page 16.

- 5. Evaluate the results of your tests.
- 6. As a group, report the results of your experiments to the class.
- 7. Write your conclusions in your exercise book.

Note: The following questions will help when writing your conclusion:

- Which natural dye produced the strongest colour?
- Which natural dye/s were the easiest to prepare and use?
- Which dye/s remained colourfast after washing in:
 - a. Cold water?
 - b. Hot water?
 - c. Being placed outside in the sun?
- How did the natural dye/s compare with the synthetic dyes:
 - a. Which dyes were easier to make?
 - b. Which dyes were easier to use?
 - c. Which dyes were cheaper to use?

Unit 3: THE DIFFERENT TEXTURES OF TEXTILES AND FABRICS

Texture

Words to learn: tactile resemble exceptional reviving reflects three-dimensional insight The texture of a textile not only makes it look good, it also adds interest to the feel of it. By adding texture to a fabric we add a whole range of tactile experiences from smooth to rough. A good example of this is an ie sae, a traditional finely-woven mat. The fine mats of the past are considered to be much softer and finer in texture than the mats of today. This is because the traditional technological process for preparing and weaving pandanus was more detailed and time-consuming than we use today. In the past, weavers of fine mats would use between four and six strips to every centimetre as a measure of the fineness of the weave. When kept for many years, a very finely-woven mat is almost like a piece of fine silk.

The texture of a fabric can also affect its colour. If you place a piece of sennett on natural coloured satin, the sennett will appear much darker. This is because a rough textured finish will always look darker than a smooth finish that reflects the light. You can see an example of this on page 24, Figure 3.1. A cream pule tasi has had texture added by attaching plaited sennett.

Much of the texture added to Sāmoan textiles is created by the weave of the fabric. In Food and Textiles Technology Year 9 Book Three (pages 23 and 24) you can see how different types of weave can be used and the effect they have on the surface appearance and texture of fabrics.

Even a plain woven fabric can have an interesting texture if the warp and weft yarns are different thicknesses. Normally, a woven textile is made from warp and weft yarn of the same thickness: *e.g. Three ply*. If the weft is only two ply and the warp is three ply the fabric woven will have an uneven texture that makes it more interesting.

Decorative Features

Feathers have always played a role in traditional Sāmoan costume and fine mats. They can be used to add an interesting texture to woven textures. Feathers can be dyed using the same method used to add colour to cotton or pandanus fabrics. However, they need only three minutes in the boiling dye before being left in the sun to dry. When using feathers to add texture and interest to a textile it is a good idea to thread the feathers together before you begin to weave with them.

Food and Textile Technology Year 10 Book Three (pages 55–59) explores using embroidery, patchwork and appliqué. Each of these adds texture to the textile it is applied to. The photo below of a skilled machinist at work shows how the extra layer of fabric in appliqué adds both texture and decoration to the base fabric.



Figure 3.1 Pule tasi with plaited sennett.



Figure 3.2 *Expert machinist creates appliqué.*

On Colour Page 4 you can see how fabric paint can been used to add surface decoration, and how glitter paint adds texture to fabric.

Activity 5 Investigating The Fine Mat Project

This activity is to give you an understanding of the important part texture plays in the traditional fine mats of Sāmoa.

Since 1997 the Women in Business Foundation (WIBF) has been managing a project to bring back the traditional art of making Sāmoan fine mats. There is a saying in Sāmoa in regard to the fine mat: 'Tasi ae afe.' This means that one mat of exceptional quality is worth a thousand ordinary mats, showing that the texture of a textile item can add greatly to its value.

- 1. Complete either (a) or (b).
 - (a) Investigate how Pula Vaifou Faraimo, a woman and Sāmoan high chief of Saleimoa village, has helped keep alive the art of making fine mats.
 - (b) Investigate how the women's komiti in your village has helped keep alive the making of fine mats.
- 2. Write a report on the biggest challenge that faced the Fine Mat Project and how it was overcome. The WIBF office is in the old Mothers' Centre building in Apia or you could write to them at P.O. Box 720, Apia.

Unit 4: THE SUITABILITY OF DECORATION FOR DIFFERENT FIBRES AND FABRICS

Words to learn: absorbency properties continuum	 Absorbency is one of the properties of fibres we first learnt about in Year 9. When we talk about how absorbent a fabric is we are describing how well the fibre/s used to make the fabric can soak up and hold moisture. Did you know? The more absorbent the fibre/s are in a fabric, the easier it will be to dye or paint that fabric: <i>e.g. Fabric made from 100 per cent pure cotton will be easier to dye than fabric made from a mix of 50 per cent cotton and 50 per cent nylon</i>. Food and Textile Technology Year 10 Book Three looks at the properties of different fibres that are used to make fabrics. Each fibre reacts differently to dye, depending on its ability to absorb dye. In Activity 4 both the fabrics suggested, cotton and pandanus, were chosen because of their absorbency.
Activity 6	Understanding Absorbency

This exercise will provide an opportunity to revise what you have learnt about fibres, absorbency and how they relate to fabric dyeing.

Referring to the chart in Food and Textile Technology Year 10 Book Three (page 32) read the information about absorbency of different fibres to help you complete this task.

1. Your teacher will divide the class into groups. Each group will be given a card with the name of a fibre written on it.

Discuss in your group, the following questions about the fibre on your card:

- On a scale of 1 to 5, how absorbent is the fibre?
- What evidence do you base your decision on?



2. Your teacher will ask each group to place their card on a continuum from 'MOST ABSORBENT' to 'LEAST ABSORBENT' along the floor of your classroom.

When all the cards are placed on the floor everyone checks the order. Then anyone in the class can move one card that they feel is in the wrong order. As they move the card they need to give their reason for moving it.

Here is an example of the type of statement you might make:

'This is not very absorbent because it is made by a chemical process, so I've placed it at the least-absorbent end of the continuum.'

Unit 5: EXPLORING TEXTILE PRINTING

Food and Textile Technology Year 9 Book Three (page 32) looked at a simple method for printing a pattern on fabric using a stencil shape cut into a vegetable. This basic introduction to fabric printing showed a technological process that is over 2000 years old. Traditionally, the stencil would have been made from wood and, later, metal blocks.

Stencilling

Being able to wear colourful and patterned clothes helps improve everyone's soifua mālōlōina and stencilling is a good way to add colour to garments. The Japanese, in particular, developed real flair with the art of stencilling.

Did you know?

During the Tokugawa Shogunate Dynasty, the period between 1603 and 1868, the art of stencilling created a new opportunity for Japanese people outside the ruling classes to wear brightly coloured and patterned clothing.

Words to learn: consuming circumference adhesive degree anchored organdie evaluation

The Stencilling Process:

- Step 1 Design the pattern for the stencil. It is important to keep the design simple. The same shape can be repeated in a number of ways to create variety and interest to the overall design.
- Step 2 Transfer the design onto thin plastic or cardboard. It is important to leave a good-sized border around the design so that the paint does not smudge over the edge of the card. Use a craft knife to cut out the design. To prevent the fabric paint seeping under the edge of the stencil you can rub the cut edge of the design with candle wax. This gives the stencil a waterproof edge.
- **Step 3** Iron the fabric to be printed to remove all creases.

Stretch it out on a flat surface and hold down each corner with masking tape. Mark out where each stencil will go. Now, position the stencil and tape it in place.

- Step 4 Apply the fabric paint with a sponge or brush using an up and down (dabbing) movement. Carefully remove the stencil.
- Step 5 Repeat the process, being careful not to smudge the previous print.
- Step 6 Once the complete pattern has been applied leave the printed fabric to dry. When it is dry, iron on the back of the fabric to 'fix' the colours.



Screen Printing

Screen printing was developed from stencilling. It is a more complex process and can be used to produce more intricate patterns. When you screen print, the design is placed on the underside of a fine mesh screen which stops it collapsing or moving.

The Screenprinting Process:

- Step 1 Make the screen. (Once it has been made you can use it over and over again.) The size of the frame determines the size of the design. However, it is important that the frame is a manageable size. The diagram on the right shows a completed screen with the organdie stretched tightly over the frame and stapled into place.
- **Step 2** Stick masking tape around the underside of the screen, where the organdie and frame meet. This should stop the ink leaking during the printing process.
- **Step 3** Make the template out of paper or thin card using the method described for making a stencil. Place the template underneath the frame, and attach it to the frame with masking tape.
- **Step 4** At the far end of the screen spread out a thick line of paint.

- Step 5 Use a squeegee to press down on the screen and draw the ink across the screen taking care not to move the screen.
- Step 6 Carefully lift the screen and reposition it, taking care to not smudge the paint. Repeat the process until the pattern is complete.



Roller Printing

Roller printing was a big step forward in fabric printing technology. This method of printing was developed by Thomas Bell, a Scotsman. Roller printing makes it possible to use several different coloured dyes at the same time.

There is, however, a disadvantage. The size of the pattern is limited to the width of the roller (normally no larger than 50 cms).

The Roller Printing Process:

Step 1 Preparation:

Use a cardboard tube from the centre of a roll of cling wrap, tin foil or paper towel.

Use some string to create a simple pattern and attach it to the cylinder with a strong glue.

Iron the fabric to be printed to remove all creases. Use masking tape to anchor the fabric at the corners.

- **Step 2** When the glue is dry, carefully roll the cylinder on the plate of fabric paint. The paint should only come in contact with the string and not the roller.
- Step 3 Carefully roller the pattern onto the fabric. Experimenting on paper first will help you to judge the amount of paint to use, and the degree of pressure needed when rolling on the design.
- **Step 4** Repeat this process to build up the pattern to create the complete design.



Activity 7 Fabric Design And Printing

This exercise will provide an opportunity to explore innovative fabric designs and to apply one of the methods of textile printing already described in this unit.

Food and Textiles Technology Year 10 Book Three (page 67), looked at how to create surface designs for a bag for tourists that represents an aspect of the environment in Sāmoa. Many of the designs that we see on fabrics in our shops have the same environmental theme.

- 1. Study Figure 5.1 below, taken at Plantation House. See how many Sāmoan images you can identify. List them in your exercise book.
- 2. Look at the different fabrics shown in the picture and identify the method of printing used to create the designs shown. Discuss with a classmate how you reached your decision about the method of printing used in each case.



Figure 5.1 *Plantation House.*

3. Imagine that you have been commissioned by Plantation House to create a new design for a fabric that will have 'youth in mind' as its theme.

In small groups discuss what this might mean.

As a class, brainstorm your ideas.

- 4. Explore your own ideas by preparing sketches to show what 'youth in mind' means to you. Having come up with a range of ideas choose two or three to develop into a simple shape that could be used as a template for printing on fabric. You will need to decide which process you will use to apply your pattern: *e.g. Stencilling, screen printing, or roller printing.*
- 5. After you have completed your design and decided on the method of printing you will need to prepare the cotton calico for printing. If it is new, wash it to remove the 'finishing' from the fabric, so that it will absorb the fabric paint.
- 6. Prepare a storyboard to present your idea to Plantation House. There is an example of how to do this in Food and Textiles Technology Year 10 Book Three, Unit 5. Remember you need to include:
 - How you came up with your ideas.
 - How you developed your ideas.
 - How you carried out the printing process.
 - How well your printed cotton meets the brief and specifications you were given.

Evaluation

To complete this activity you need to carry out an evaluation of your work and present it in your exercise book. There are many different ways to do this. You might like to use a star graph like the Food and Textiles Technology Year 10 Book Three (page 70), to gather other people's comments on your work. However, you may not need to use as many points for your star graph.

Here are some ideas to think about:

- Suitability of design for the theme 'youth in mind'.
- Degree of creativity shown.
- Appropriate use of colour for the design chosen.
- Suitability of the fabric for printing.
- Suitability of design for the printing process used.
- Quality of the finished product.

Unit 6: USING PANDANUS TO EXPLORE TWILL WEAVING

Words to learn: durability compensate attachment Food and Textile Technology Year 9 Book Three (page 16), looked at the process for preparing pandanus leaves into fibre for weaving. You may have had an opportunity to make a simple household item from pandanus using a plain weave. This year your weaving skills will be extended when you learn how to make an item using twill weave. A clear diagram of twill weaving appears on page 23 of the Year 9 book.

Did you know?

It is the twill weave that gives denim jeans their strength and durability.

Activity 8 Weaving Twill

This activity will give you an opportunity to practise weaving twill.

You will need to decide what you would like to make and how you will adapt the instructions below to make a household or clothing item. It may be possible for your class to invite a weaver from your community to work with you on this project. If this is not possible, it would be best to keep the item you make as simple as possible. The diagram below shows how to weave twill and finishes with a picture of a belt.

The Twill Weaving Process:

Step 1 Preparation:

Begin with two cords of pandanus A and B.These will be the anchor for the weaving and determine the finished width of your item.

To work out the length you will need to form the cords of pandanus that will run the length of the woven article: multiply the finished length by two, and add some extra length to allow for the amount of cord taken up by the weaving.

Fold each long cord of pandanus in half and place the fold under the two horizontal cords A and B.

Step 2 Attach extra cords to A and B. Take the cord in front (1) over the top of A and B.

Bring the cord furthest away (2) over the top of the first cord and down between A and B.

- Step 3 Now pull (1), which was pointing to the left, towards the right, under cords A and B. Cord (2) is doubled down behind the cords and angled to the right.
- **Step 4** Repeat steps 1, 2 and 3 adding strips from left to right along A and B until you reach the required width.

This diagram shows how the cords will look from the under side.





Evaluation

When you have completed the weaving activity, write an evaluation of the project in your exercise book. Here are some ideas to think about as you write your evaluation:

- Were the instructions easy to follow?
- How accurately did you estimate the length of pandanus required?
- How well did you finish off your weaving?
- Did you attach any decoration? If so, describe how you did this.
- How suitable was the twill weave for the article you made?

Unit 7: MAKING DECISIONS ABOUT CLOTHING NEEDS

Before you begin this unit it is important to revise the information on technological practice in the Food and Textiles Technology Year 10 Book Three (page 62).

Design Brief – A Technological Solution

Words to learn: tensile strength pliability elasticity absorbency porosity dyeabilty smoothness laundering economical motif Developing this design brief requires you to make decisions about the clothing needs of an individual. To ensure that you have the opportunity to explore new techniques and processes your teacher may give you a set of specifications to follow, or you may be able to negotiate your own specifications with your teacher.

Below is an example of a design brief that your teacher may ask you to develop. However, you might like to adapt it to your own needs.

The end of term school social is approaching and the organising committee have decided to have a theme for the occasion. The theme they have chosen is 'Round the World'. Design a top: *e.g. Shirt, T-shirt or blouse suitable for a teenager to wear with a skirt, jeans or pair of shorts.* You need to use French seams in the construction of the garment to provide experience with another type of seam. The fabric used has to be suitable for printing with a simple motif using one of the following methods: stencilling, screen, block or roller printing. The design printed on the fabric needs to capture the theme of the social. Your teacher will supply a basic pattern but you will need to adapt it.

Activity 9	Identifying Key Features Of A Garment
	This activity will help identify the key features needed for a top suitable to wear to a school social.
	Before you make any decisions about the style of the top or the design to print on it, you will need to think about the features needed for a garment that is to be worn to a social.
	1. In groups of three or four, brainstorm the characteristics you think will be important.
Activity 10	Properties Of Fibres
	Refer to Food and Textile Technology Year 9 Book Three to revise the properties of fibres.
	Your teacher will write the different qualities of fibres on pieces of card: e.g. Tensile strength, pliability, elasticity, absorbency, porosity, dyeabilty, smoothness, ease of laundering, economical.
	1. Working in groups of three or four, you will be given a card with one of the properties listed above on it. Discuss whether you think that property is important for the design brief you are working on.
	 Your teacher will ask you to organise the cards on a continuum from MOST IMPORTANT QUALITIES to LEAST IMPORTANT QUALITIES down the middle of the floor.
Activity 11	Developing A Design Brief
	In this activity you will work through the steps in a design brief and record each stage on a storyboard. To refresh your memory on how to put a storyboard together look at Food and Textiles Technology Year 10 Book Three (page 71).

The following example will help to guide you through this process:

Step 1 Start by collecting ideas for the style of your top. Look in magazines, books and, if possible, visit some shops. Once you have some ideas you can start sketching them. These are called your 'concept drawings'.

Remember that these drawings do not have to be perfect. They are simple sketches to show how you explored different concepts before deciding on your final design. Below are some ideas to get you started.



- Step 2 When you have explored your ideas fully choose your final design, including the design of the motif you will print, and indicate the type of fabric you will use.
- **Step 3** Develop a male and female version of your final design.



The French seam is stitched twice — once from the right side and once from the wrong side. It is the classic seam for sheer fabrics and looks best if the finished width is 6 mm or less.
Step 1 With wrong sides of the fabric together, stitch a seam 1 cm from the edge.
Step 2 Trim the seam allowance to 3 mm.
Step 3 Press the seam open.
Step 4 Fold right sides together making sure the stitched line is on the edge exactly.
Step 5 Press the seam again.
Step 6 Stitch on the seamline, which is now 6 mm from the fold.
Step 7 Press the seam to one side.

If you did not do Activity 7 (Fabric Design And Printing) you will need to record a printing process on a storyboard. Refer to Food and Textiles Technology Year 10 Book Three (page 71), to revise how to present a storyboard. If you are using a different method of printing to the one you used in Activity 7 you should also record it here.

Evaluation

Evaluate the outcome of your design brief. Compare your product to the original specifications and make recommendations for any improvements that you could make.

Here are some questions to think about as you write your evaluation:

- How did the design develop during the project?
- Did you need to make any changes as you worked through the project?
- Did the project turned out the way you expected it to?
- Did you allow enough time for your investigation, design, planning, and making?
- What improvements could you have made?

It is always a good idea to conclude an evaluation by making positive suggestions for improvements.

Unit 8: GOAL SETTING

Words to learn: resolution perseverance tertiary specific measurable realistic Identifying the steps in goal setting, discussing their application and looking at time-management skills all help to ensure that a family's resources are managed in the best way.

Many people make New Year's resolutions about things in their lives they want to have more control over. It may be that they want to achieve a goal: *e.g. Better grades in examinations, getting more exercise, or saving for a trip overseas.* Having good intentions is not enough. To achieve a goal, you need **commitment, enthusiasm** and **perseverance**. Even with personal goals you will usually need the support of others to be successful in achieving them. By sharing your goals with others, you are more likely to get their support and encouragement and this will help you achieve your goal.

It is also likely that you are involved in trying to achieve family goals. Like personal goals, these are often related to needs or wants that require funding: *e.g.An operation for a family member overseas, saving for tertiary education, or repairs to a family vehicle.* Once again, it is vital to discuss the goal at a family meeting so that everyone feels involved. It is important that everyone understands the need to work together to achieve a successful outcome. Without everyone's commitment there will not be successful outcomes.

How To Set Realistic Goals

Whether the goal is for an individual or a family it is essential to follow the goal-setting process to increase the chance of success:

Write the goal down, making it as specific as possible:

e.g. Isaia wants to pass his history examination at the end of the year with a B grade or better. This is a specific goal. It relates to this year — not to getting to university to study history some time in the future.

Make sure the goal is measurable. Isaia's goal can be measured. At the end of the year he will sit the exam and either he will pass, or he will fail. Make sure the goal is achieveable and realistic. This does not mean that you cannot think big, but it indicates that sometimes big goals need to be broken down into a number of smaller goals first:

e.g. Young people who are thinking about a goal like going to university or having a career that will require tertiary education need to first focus on passing school examinations. This is a realistic first goal.

 Set a time limit. This example of Isaia and his history exam has a time limit — the end of the year.

S = Specific M = Measureable A = Achieveable R = Realistic T = Timed

This model of goal setting follows the **SMART** rules:

Activity 12 Managing Resources

In Social Studies Year 10 Book Three on page 15 there is a case study of a young man called Perenise who works as a driver for a bus company. He works 40 hours each week and earns \$1.60 per hour. He is interested in fixing car and bus engines and started a mechanical engineering course at Polytechnic, but he never finished it. Perenise lives with his parents in the village of Saleimoa. Each week he gives some of his wages to his parents and the rest he spends on entertainment with his friends. Perenise often complains about his job and he wishes he had more money.

- 1. In a small group, discuss what issues you think may have caused Perenise to give up his mechanical engineering course.
- 2. Working individually, draw up a plan of action for Perenise that will involve him using a SMART goal.
- 3. As a class, discuss how the family could help by making Perenise's goal a family goal.

Unit 9: TIME MANAGEMENT

Words to learn: prioritise unproductively socialising	Time is often one of the most easily-wasted and undervalued resources available to us. Learning to use time wisely will help you as an individual, and your family to achieve far more every day. Achieving goals is often about managing time sensibly. The first thing you need to do for good time management is learn to prioritise tasks.
	Perenise, the young man in the last activity, was spending a lot of his time with friends when he was not working. While having a supportive group of friends is essential to your soifua mālōlōina it is important to make sure you don't spend too much of your day focusing on activities that use your time unproductively and cost money. Getting the balance right is always difficult and when the balance is not right you can feel stressed. Doing nothing but work, and spending too much time socialising, or getting behind with work or study commitments can all make you feel stressed.
	Time management is all about getting the balance right to increase satisfaction and minimise the stress in your life.

Activity 13 How People Use Their Time

This activity asks you in explore how different family members use their time.

- 1. In groups of four to six, each participant takes on the role of one of the following family members:
 - Mother.
 - Father.
 - Daughter.
 - ∎ Son.
 - Grandmother.
 - Grandfather.

- 2. Your group will need to develop a profile of your family and each of its members by deciding:
 - What age each family member is.
 - Whether they work away from the village.
 - What personal interests they have.
- 3. Each participant makes a list of the tasks that the different family members might do under the following headings:
 - Personal physical needs: *e.g. Sleeping, washing, eating*.
 - Spiritual and emotional needs.
 - Employment: e.g. Work on a plantation, work away from the village, caring for other family members, going to school or university.
 - Recreation.
 - Free time for self.

Having made a list of all the things each family member will be trying to do in a day you will then need to see how much time each activity will take.

The next step is to see how equal the time is between the different tasks that family members have to carry out.

In your groups discuss the following questions:

- 1. Do some people spend longer than others at work? If so, can this be avoided by other family members taking on extra tasks?
- 2. Do some family members take longer than others attending to personal physical needs? Try and find the reason for the difference in time spent.
- 3. Can spiritual and emotional needs be met at the same time as other tasks are being carried out?
- 4. Does everyone get the same amount of free time? Does this matter?

Evaluation

Write an evaluation in your exercise book about how the family your group has created uses their time. Include ideas that could help this family enhance their family living and soifua mālōlōina by using time more fairly and wisely.

Activity 14 Improving Time-management Skills This activity gives you an opportunity to focus on how you use your time. 1. Keep an activity diary for a week. Record how long you spend each day doing the same activities you looked at in Activity 12. Personal physical needs: *e.g. Sleeping, washing, eating.* Spiritual and emotional needs.

- Employment: e.g. Work on a plantation, work away from the village, caring for other family members, going to school or university.
- Recreation.
- Free time for self.
- 2. Analyse the proportion of each week you spent on each of the activities and compare your results with another student in your class.

Evaluation

Evaluate how you have been managing your time and make recommendations for change. Record all your observations in your exercise book.

Unit 10: MAKING DECISIONS

Words to learn: autonomy consumption Several times every day you make decisions. Some decisions are so small that you don't even realise you are making them: *e.g. What clothes to put on in the morning.* Sometimes, decisions like that are made for us because we have little choice. Younger members of a family have many decisions made for them. However, as people mature they learn how to solve problems and this gives them greater autonomy. **When you make a decision you are finding a solution to a problem**.

To be able to make wise decisions you must carefully consider all the factors relating to the particular problem you are facing. This is the same process you used to follow the design brief in Activity 10.

Some people might think that making an individual decision about a problem to be solved is much easier than trying to solve a problem for a family but this is not always the case.

Most decisions affect more than one person and each possible solution to a problem carries consequences.

The Decision-making Process:

- Step 1 Define the problem to be solved or the goal to be achieved as clearly as possible.
- **Step 2** Gather all the information you need to help solve the problem.

This includes exploring personal feelings about the problem, checking out your values, and the feelings and values of other people affected by the problem.

- **Step 3** List all the options you can think of.
- **Step 4** List the consequences (the advantages and disadvantages) of each of the options.
- Step 5 Identify the feelings you and others may have about each option.
- **Step 6** Make a decision.

Finally, there is another important step in decision making which we cannot take here, because you would need to use the decision-making process with a 'real problem'.

Step 7 Evaluate the decision you made after some time has passed. Think about how successful the decision was.

In the Year 11 Business Studies Book Unit 5 (page 56–61) there is a very useful section on Decision Making relating to the Consumption of Goods and Services. Going through the decision-making process in that book as a class will prepare you for further work on this topic.

Case Study

In Business Studies Year 10 Book One (pages 75–77) there are some questions on 'buying decisions', which would be useful to look at and discuss before moving onto the next part of this activity.

The next activity will involve you in working individually through the steps in a decision-making process.

In Business Studies Year 10 Book One on page 53 there is a case study about Talusa who is a member of a family of ten.

Talusa's family consists of her grandmother, her two parents and three primary-school-aged children and three older children who are at government colleges. Talusa earns \$360 every fortnight and their expenses each fortnight come to \$360.

The income is spent on the following:

Food	\$80
Fa'alavelave	\$100
Church donations	\$80
Pastor's visit	\$20
Children's needs	\$80

1. Imagine that one of the children in this family, Iva, excels at soccer and has the opportunity to represent Sāmoa in a Pasifika Tournament in Auckland. The family has to find half the airfare to send their son to New Zealand.



 Draw a decision-making grid like the one on the left in your exercise book. Make sure that the grid is big enough for all of your comments to fit. Referring to the information above, complete the decisionmaking grid to help Iva's family find a way to raise the money that is needed for the trip to New Zealand.

3. Your teacher will give you some more problems relating to retail purchases for you to practise with the decision-making grid.

Unit 11: THE EFFECT OF MEDIA ON PURCHASING DECISIONS

Words to learn: current global critical

Any type of communication that reaches a large number of people can be called mass media: *e.g. Television, the Internet, radio, movies, books, newspapers, recorded music and magazines.* The media have the ability to reach people worldwide at any time of the day or night. The media are a powerful communicating tool sending messages that you can either accept or reject. It supplies essential information to your immediate community and keeps you up-to-date with global current events.

Although the media play an important part in our lives it is important to be critical of what is presented. This means you need to think about and analyse what you are being shown and told.

This is particularly true of advertising. Modern advertising techniques are designed to encourage us to accept and act on messages. You need to be aware of the effect advertising has on your purchasing decisions, both as individuals and as families so that you can become wiser consumers.

Activity 15 Analysing Advertising

This activity asks you to collect data about advertisements in the media. Understanding how advertisements are targeted and distributed to particular groups of people to encourage them to purchase certain goods and services will help you become more informed as a consumer.

 Working individually or in pairs, select one advertisement from the media to critique. It can be from any source. If you are using an advertisement from television or the movies you need to describe what the advertisement is about. You might like to tape an advertisement from the radio to play to the class. If you select a magazine or newspaper advertisement you can have it on display when you report your observations to the class

- 2 Your report to the class must include answers to the following questions:
 - What medium has been used for your advertisement? Is this form of advertising appropriate for the goods and services being advertised?
 - Which group or groups of people is the advertisement targeted at? e.g. Families, teenagers, farmers.
 - How does the advertisement capture the targeted group?
 e.g. The images used, the words in the slogan, the music.
 - In your opinion, how 'real' are the people in the advertisement?
 e.g. Do they act like the people you know?
 - Does the advertisement make you feel that your life would be better in some way, if you had the product or service being advertised?

Unit 12: CUSTOMER SERVICE

Words to learn: transmitted non-verbal body language Advertising is one way of spreading the word about a product or a service. But a much cheaper method is to provide good customer service. The customer is always doing a favour to a business they are giving their work to. All businesses depend on customers bringing their business back. The customer should never be treated like an outsider, but as part of the business.

Often customer service is poor because of a lack of understanding about communication skills. It is not just what is spoken that is transmitted from one person to another. How you say things has an effect on the message sent. Non-verbal communication — body language — plays a very powerful role in delivering messages, especially when those messages deal with emotions.

When you send a message to someone you do it in different ways:

- 55% is non-verbal: e.g. Facial expressions and body movements.
- \blacksquare 38% is by the volume, rhythm and pitch or 'tone of the voice'.
- 7% comes from the words actually spoken.

The way customers are received by a service provider, whether it is a government department or a private business, can vary depending on the training in communication skills employees are given. It is a skill that needs to be practised and reflected on if employees are to be effective. Employees who are made to feel valued in the workplace will usually make more effort to provide good service with a smile.

Did you know?

A genuine smile is one of the best aids to building good customer relations.

Activity 16 I Was That Person

This activity asks you to investigate the characteristics of good customer service.

- 1. Work in pairs. Read the story 'I Was That Person' below. Explain the message about customer service.
- 2. Make up a 'Code of Conduct' for customer service that would ensure that the customer is always put first.

I Was That Person

I was the person in your café last week who waited patiently for you to bring the menu. When you eventually brought my order it was barely warm.

I was the person who sat on the forecourt waiting to have my petrol tank filled while you chatted to the mechanic out the back.

I was the person who waited to be served with the fabrics I had chosen, but you were busy discussing last night's social.

I was the person you forgot to thank when you gave me my change in the supermarket.

I was the person who wanted a lift in your taxi last night when you drove past in the rain.

I was the person in the bank who you never bothered to acknowledge when I reached the counter after queuing for ages.

I am the person you will try and entice back to your business by spending hundreds of tala on advertising and I was there for free a week ago.

- 3. If your school is close to any service providers you may be able to carry out an observation of the type of service they provide, but it is important to respect people's privacy. If you are going to be critical use a code name for the business in question.
- 4. Your teacher may invite a speaker to your school to talk about their company's customer service policy. This would provide an opportunity for you to compare your 'Code of Conduct' with a real customer service policy.

YEAR 11 GLOSSARY

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Word/phrase	Meaning
abrasion	The process of scraping or rubbing.
absorbency	Ability (of a material) to soak up liquid.
adhesive	Causing things to stick together.
anchored	Secured firmly in position.
attachment	An extra part or extension.
autonomy	Right or condition of self-determination, making up your own mind.
body language	Conscious and unconscious movements that communicate attitudes and feelings.
circumference	The line or distance around something, especially a circle.
clarity	The quality of being clear.
colourfast	Dyed in colours that will not fade or be washed out.
compensate	Have a balancing effect.
consuming	Eating, drinking, buying (goods or services), using up (resources).
consumption	The using up of a resource.
continuum	A continuous sequence in which the things next to each other are not very different, but the extremes are quite distinct.
contrasting	Highlighting brightness or clarity of a design by colour or texture.
critical	Thinking about and analysing, not just accepting.
current	Happening in the world now.
degree	The amount or extent of something.
durability	Ability (of a material) to withstand wear and tear.
dyeability	Ability (of a material) to soak up dye and to take colour.
economical	Giving good value in relation to the money, time or effort spent.
elasticity	Ability (of a material) to return to original shape after being stretched.
equilateral	Having all sides of the same length.
evaluation	Assessment.
exceptional	Unusually good, outstanding.
global	Relating to the whole world.
harmonious	Forming a pleasing whole (of design).
highlighting	Picking out and emphasising, making obvious.
immersion	The action of soaking in a liquid.
laundering	Washing (clothes, fabric).
measurable	Able to be measured, large enough to be measured, noticeable.
motif	Decorative design or pattern.
non-verbal	Not using words or speech.
optical illusion	A deceptive appeareance that makes you see something wrongly.
organdie	Fine cotton muslin.
particles	Very small portions of matter.
perseverance	Ability to carry on doing something even though it is difficult.
pliability	Ability (of a material) to be easily bent, flexible.
porosity	Ability (of a material) to allow air or liquid to pass through.
preferences	Having a greater liking for one thing over another.
prioritise	To decide on the order for dealing with tasks according to their relative importance.
properties	Attributes, qualities or characteristics (of things/materials).
psychological	Related to the mental and emotional state of a person or people.
realistic	Showing a sensible and practical idea of what can be achieved or expected.
reflects	Throws back heat, light or sound without absorbing it.
resemble	To be like another (person or thing).
resolution	The action of solving a problem.
reviving	Giving new strength or energy to
sepia	The reddish-brown colour of photographs from the 19th and early 20th centuries.
shades	Of colour – how light or dark they are.
smoothness	Quality of being without texture.
socialising	Mixing with other people, especially with friends.
specific	Of or for a particular thing.
tactile	Of or connected with the sense of touch.
tensile	Of or relating to tension, capable of being drawn out or stretched.
tensile strength	The resistance of a material to breaking under tension.
tertiary	I hird in order of level. Education at a level beyond school, especially college or university.
three-dimensional	Having three dimensions (length, width and height or depth).
tints	A lighter mix of colour.
transmitted	Sent on from one person to another.
unproductively	Not achieving much.
v1v1d	(Of a colour) intensely deep or bright.

KEY VOCABULARY

Key vocabulary

Vocabulary	Useful words that go with the key word	Other words
absorbency	the absorbency of a fabric, the absorbency of different fibres, fibre absorbency	absorbent
to achieve	to achieve a goal	an achievement, achieveable
to adapt	to adapt a basic pattern, to adapt the instructions	adaptation
to affect	the texture of a fabric can affect its colour	
commercial	commercial dyeing, commercial dyes	
commitment(s)	work or study commitments	
communication	communication skills, non-verbal communication	
communicating	a powerful communicating tool	
consequences		
to construct	to construct a clothing item, to construct a garment	construction
to be critical	to be critical of	to critique
current	current world events	currently
decision(s)	decision making, the decision-making process, a wise decision, purchasing decisions, to make decisions about	
the degree	the degree of pressure, the degree of creativity	
design	the design of the motif, a surface design, innovative fabric designs, a design brief	
effect	a harmonious effect, a contrasting effect, a striking effect, the effect on, to be aware of the effect	effective
to ensure	to ensure that	
essential	essential information, an essential role, an essential part of	
to evaluate	to evaluate the decision you made, to evaluate the outcome	evaluation
factors	the factors relating to a particular problem	
goal(s)	goal setting, personal goals, family goals	
to influence	to influence our decisions	
natural	natural dyes, a natural source	
properties	the properties of different fibres	
to reflect	to reflect the light	
quality	with the quality of fine silk, a mat of exceptional quality	
qualities	certain qualities, the different qualities of fibres	
resources	a family's resources, wasted and under-valued resources, resources are managed	
a sign	a sign of mourning	
significance	the cultural significance	
to signify	to signify purity	
support	the support of others, the support and encouragement	supportive
surface	surface decoration, a surface design, the surface of the cloth, the surface appearance	

Vocabulary	Useful words that go with the key word	Other words
synthetic	synthetic dyes	
targeted	to be targeted at, the targeted group	
technological	technological practice, the technological solution	
textile	a plain woven textile	
texture	an uneven texture, an interesting texture, woven textures	textured
varied	more varied	
variety	a variety of blues, variety and interest	various

Topic specific vocabulary

UNIT 1 preferences psychological harmonious contrasting optical illusions sepia vibrant vivid clarity the colour wheel neutrals a tint a shade intensity primary colours secondary colours tertiary colours tertiary colours an equilateral triangle a colour scheme analogous monochromatic complementary triadic	UNIT 2 particles immersion highlighting colourfast three-dimensional dissolve perspiration abrasion	UNIT 3 tactile three-dimensional sennett weft warp	UNIT 4 cotton linen silk acrylic nylon polyester viscose rayon acetate rayon lycra
UNIT 5 circumference adhesive degree anchored organdie stencilling screen printing the template the medium	UNIT 6 attachment twill weave twill weaving durability a weaver	UNIT 7 motif tensile strength pliability elasticity absorbency porosity dyeabilty smoothness ease of laundering economical	UNIT 8 resolution tertiary time management skills enthusiasm perseverance successful outcomes specific measureable realistic timed
UNIT 9 unproductively stressed socialising prioritise	UNIT 10 consumption greater autonomy options the opportunity to	UNIT 11 globally critical mass media informed consumers to promote	UNIT 12 transmitted non-verbal body language customer service facial expressions volume, rhythm, pitch and tone of the voice service provider authentic

Useful structures

Ways of expressing possibility

Colour *may* influence our decision about what to buy. Colours *appear to* affect humans in psychological ways.

Ways of expressing ability

The colour we are wearing *can* send signals to others about the way we are feeling. Some colours *can* also create illusions.

Ways of thinking about things

The fine mats of the past *are considered* to be much softer and finer in texture than the present ones. One mat of exceptional quality *would be considered* to be worth a thousand mats. Black *is seen* by many people as a sober colour. White *is seen* in many cultures to signify purity. White *is associated* with weddings and going to church.

Ways of explaining why you carry out certain steps in a process

Iron the fabric to be stencilled to remove all creases.

Use the dye created to colour the pandanus.

Sticking masking tape around the underside of the screen where the organdie and frame meet helps to stop the ink leaking during the printing process.

Ways of explaining how parts of a process should be carried out

Use a squeegee to press down on the screen and draw the ink across the screen taking care not to move the screen.

Repeat the process being careful not to smudge the previous design.

It is important to leave a good-sized border around the design so the paint does not smudge over the edge of the card.

To prevent the fabric paint seeping under the edge of the stencil try rubbing the cut edge of the design with candle wax.



Tapito mat woven by Nopele Hakai from Vailoa, Aleipata



Rolls of fabric



Fabric items at Plantation House, Apia





Look at what happens when the same coloured box is put inside a different coloured box



Group photo



Patterned material



Bartley fabric shop







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