

Name:

Teacher:

Form:

Textiles Year 7 Homework Booklet

My teacher is going to test me on all of my homework at the start of each lesson.

For my technical knowledge I need to know:

- How to spell the word correctly
- What the meaning is
- How and where it is used.

Marks

Date	Test number & total mark	My mark	%
	Test 1 - 15 marks		
	Test 2 - 6 marks		
	Test 3 - 10 marks		
	Test 4 – 6 marks		
	Test 5 – 12 marks		
	Test 6 – 8 marks		
	Test 7 – 6 marks		
	Test 8 – 8 marks		
	Test 9 – 10 marks		
	Total 85		
	End of module test – 50 marks		

Home work 1: Health & Safety

Read and learn the points below

Health and Safety in the classroom - learn the points

- Fill in the missing words in the sentences below, to make a list of the health and safety rules.
- Place bags and coats under the table
- Turn the iron off when you are finished.
- When threading up the sewing machine make sure it is switched off at the mains
- Do not run or push into the classroom.
- When carrying scissors hold them in towards the body with the blades pointing .down
- If you are unsure or have a question, ask your teacher.
- Noise levels need to be quiet so you can hear the teacher.
- Do not distract someone when they are using electrical equipment.
- Keep Long hair tied back
- Keep hands. Away from the needle on the sewing machine.
- When someone is using the sewing machine I should stand clear.
- When using the dyes you should wear protective gloves
- Make sure all of the equipment is picked up after a lesson and put away.
- Do not use pins inappropriately.

Home work 1: Test : Health & Safety

Do not fill this sheet in at home

Fill in the missing words in the sentences below, to make a list of the health and safety rules.

/15 marks

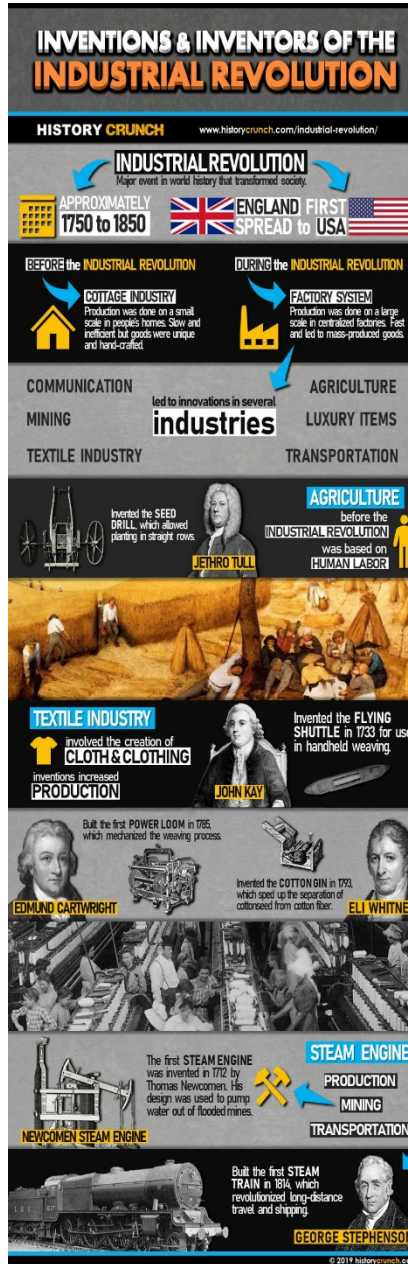
Health and Safety in the classroom - learn the points

- Place bags and coats under the
- Turn the iron when you are finished.
- When threading up the sewing machine make sure it isat the mains
- Do not or push into the classroom.
- When carrying hold them in towards the body with thepointing down.
- If you are unsure or have a question, ask your
- Noise levels need to be so you can hear the teacher.
- Do not.....someone when they are using electrical equipment.
- Keep long hairback
- Keep hands away from the needle on the
- When someone is using the sewing machine you should stand
- When using the dyes you should wear
- Make sure all of the equipment is picked up after a lesson and
- Do not use pins.....

Homework 2 - Industrial revolution Read the piece and learn key points

One of the main industries that benefitted from the [Industrial Revolution](#) was the textile industry. The textile industry was based on the development of cloth and clothing. Before the start of the Industrial Revolution, which began in the 1700s, the production of goods was done on a very small scale. Historians refer to this method of production as the '[cottage industry](#)'. Simply put, the cottage industry refers to a period of time in which goods for sale were produced on a very small scale, usually in a home. In this system, people produced goods, such as wool, in their homes or on their own farms and then sold it to local communities since long distance transportation was uncommon. This method of production was slow and inefficient and struggled to keep pace with the growing demand caused by the increased population. In contrast, industrialization allowed goods to be produced in a central location and on a mass scale. It also led to the creation of inventions that helped speed up the production method of many goods, but most noticeably in the textile industry.

Throughout the 1700s, inventors such as [Richard Arkwright](#), [Eli Whitney](#), [James Hargreaves](#), [John Kay](#) and [Edmund Cartwright](#), developed machines and techniques that helped improve production, especially in terms of the textile industry. For example, in 1733 John Kay developed a wheel shuttle, later known as a flying shuttle. The machine improved weaving efficiency and reduced labour needs because it could be operated with only one operator. James Hargreaves created the spinning jenny in 1764, which allowed a machine with many spindles of thread to be spun at one time.



Richard Arkwright added to this by developing the water frame in 1769. The water frame allowed over one hundred spindles of thread to be spun at one time but was so large and needed so much energy that he built it next to rivers and creeks in order to use the force of the water to spin the machine. For his part, Edmund Cartwright developed the power loom in 1785 which allowed quicker production of cloth. Finally, American inventor, Eli Whitney developed the cotton gin in 1793, which allowed for quicker production of cotton. Previously, cotton had to be hand cleaned in order to remove fibres and seeds. Whitney's cotton gin sped up this process and allowed for much faster harvesting of the resource. In all, these inventions mechanized the textile industry and led to the establishment of factories throughout [Britain, which was the first country to industrialize](#)



Homework 2 -Industrial revolution . Do not write on this page at home.

..... Marks/6

Test – complete the questions

Question	Answer
When did the industrial revolution start and what is the cottage system?	
What did industrialisation lead to?	
Who invented: The flying shuttle Spinning jenny	

Homework 2 -Industrial revolution ..

..... Marks/6

Answers Test –

Question	Answer
When did the industrial revolution start and what is the cottage system?	One of the main industries that benefitted from the Industrial Revolution was the textile industry. The textile industry was based on the development of cloth and clothing. Before the start of the Industrial Revolution, which began in the 1700s, the production of goods was done on a very small scale. Historians refer to this method of production as the ' cottage industry '. The cottage industry refers to a period of time in which goods for sale were produced on a very small scale, usually in a home. In this system, people produced goods, such as wool, in their homes or on their own farms and then sold it to local communities since long distance transportation was uncommon. This method of production was slow and inefficient and struggled to keep pace with the growing demand caused by the increased population.
What did industrialisation lead to?	Industrialization allowed goods to be produced in a central location and on a mass scale. It also led to the creation of inventions that helped speed up the production method of many goods, but most noticeably in the textile industry
Who invented: The flying shuttle Spinning jenny	1733 John Kay -flying shuttle. 1764 James Hargreaves -spinning jenny,

Home work 3:

Maths in Design Technology – textiles

Textiles: mm, cm and mts, kilometres (691 - Metric units of measure)

Complete on Mr Hegarty Maths 691 12 marks

<https://hegartymaths.com/metric-units-of-measure>

Watch the video makes note and bring into your next lesson to put in your work book.

Complete the quiz, you must achieve 80%

You will be tested in class too.



- Quiz - 12 marks your teacher will upload your results

Homework 3 :Test – Fill in the gaps

Metric units of measure (1)






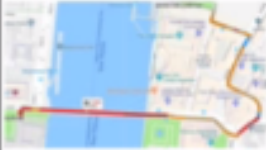
Length

Unit	Symbol	Meaning	Approximate size	Diagram	Use
millimetre					
centimetre	<i>cm</i>	One hundredth of a metre $1\text{ cm} = 0.01\text{ m}$	The length of a finger nail (recently trimmed).		To measure a hand span
metre	<i>m</i>	<i>Standard metric unit</i>	The average height of 3 year old child.		To measure the dimensions of a room
Kilometre					

10 marks

Metric units of measure (1)

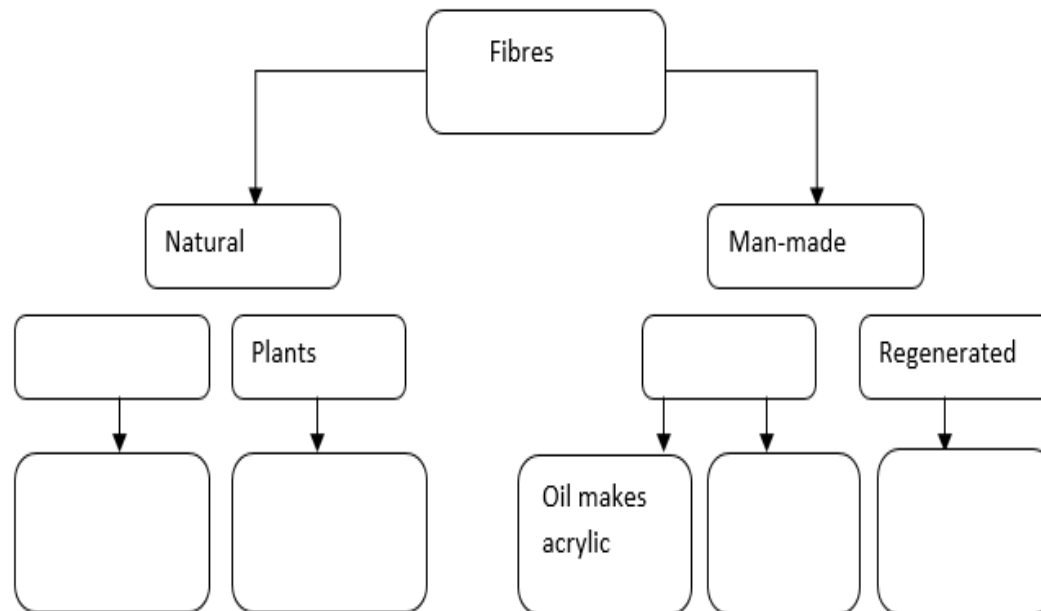
Length

Unit	Symbol	Meaning	Approximate size	Diagram	Use
millimetre	<i>mm</i>	One thousandth of a metre $1\text{ mm} = 0.001\text{ m}$	The width of a pencil tip.		To measure the length of a small insect.
centimetre	<i>cm</i>	One hundredth of a metre $1\text{ cm} = 0.01\text{ m}$	The length of a finger nail (recently trimmed).		To measure a hand span
metre	<i>m</i>	<i>Standard metric unit</i>	The average height of 3 year old child.		To measure the dimensions of a room
kilometre	<i>km</i>	One thousand metres $1\text{ km} = 1,000\text{ m}$	The distance between London Eye and Big Ben.		To measure the distance between two cities

Homework 4

FIBRES AND THEIR SOURCES

Independently research and complete the diagram below, filling the empty boxes

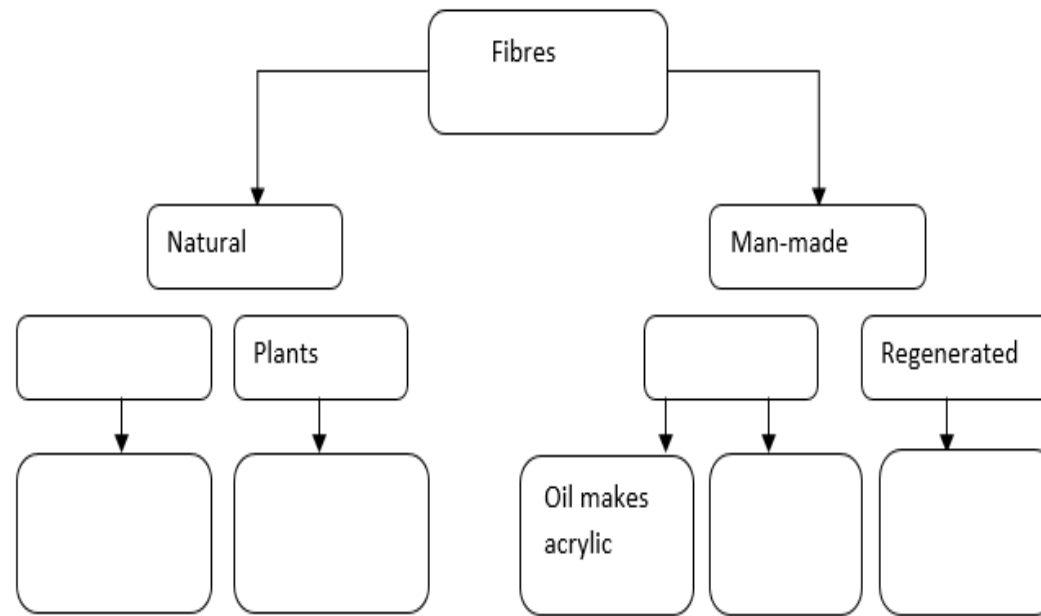


Test

Homework 4

FIBRES AND THEIR SOURCES

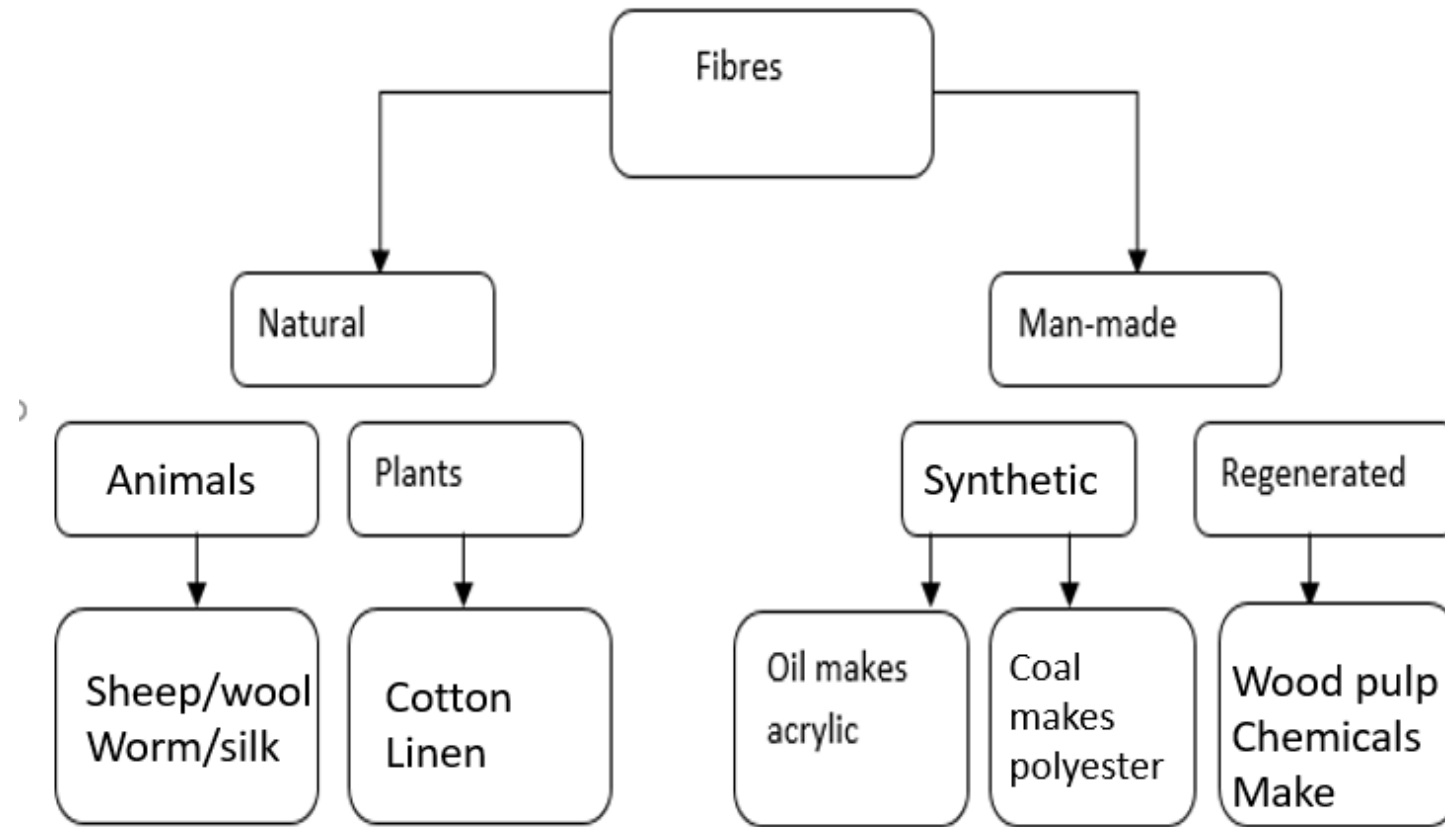
Independently research and complete the diagram below, filling the empty boxes



..... Marks/6

Answers Test

Homework 4



Homework 5 FIBRES AND THEIR SOURCES

Fill in the chart below from textile products at home,
The first one has been filled in as an example, you must have one item per classification

Product	Classification	Sources	Properties	Use
Jumper	Natural -Wool	Sheep	Warm Itchy	Blanket Coat Jumper

Homework 5 – Test

FIBRES AND THEIR SOURCES

Do not fill this sheet in at home

Fill in the chart below from the textile products you researched at home,
The first one has been filled in as an example.

..... Marks/12

Product	Classification	Sources	Properties	Use
Jumper	Natural –Wool	Sheep - animal	Warm Itchy	Blanket Coat Jumper
	Natural - cotton			
	Synthetic – polyester			
	Regenerated - viscose			

Homework 6 Key technical words: spelling, meaning & use. Read and learn

Key technical terms	Meaning	Use
Fibre	A fibre is a thin thread of a natural or artificial substance.	It is used in mass to make cloth or rope
Natural fibre	Substances produced by plants and animals, examples are cotton, wool & silk	It is used in mass to make cloth or rope. These are bio-degradable. Their properties are: Cotton – absorbent, cool Wool – Absorbent , warm Silk – Strongest natural fibre, warm when cool, cool when hot
Synthetic fibre Polymer	Synthetic fibres are man – made from chemicals. They are generally based on polymers. A polymer is a substance which has a molecular structure built up chiefly of a large number of similar units bonded together.	It is used in mass to make cloth or rope. These are not biodegradable Their properties are: Strong, non- absorbent
Regenerated fibre	Created by dissolving the cellulose area of plant fibre in chemicals and making it into fibre again, examples are Lyocel and viscose	It is used in mass to make cloth or rope. These are bio-degradable.
Needle	For hand-sewing, is a long slender tool with a pointed tip at one end and a hole (or eye) at the other.	A needle is used in sewing to pull thread through cloth
Thread	A filament, a group of filaments twisted together, or a filamentous length formed by spinning and twisting short textile fibres into a continuous strand	To join material together or used to create material.
Scissors	A pair of scissors consists of a pair of metal blades pivoted so that the sharpened edges slide against each other when the handles (bows) opposite to the pivot are closed.	Scissors are used for cutting various thin materials, such as material

Homework 6 Test

Do not fill this sheet in at home

..... Marks/8

Key technical words: spelling, meaning & use
Fill in the gaps

Word	Key technical terms	Meaning	Use
Fibre			It is used in mass to make cloth or rope
		Substances produced by plants and animals, examples are cotton, wool & silk	It is used in mass to make cloth or rope. These are bio-degradable. Their properties are: Cotton – absorbent, cool Wool – Absorbent , warm Silk – Strongest natural fibre, warm when cool, cool when hot
Synthetic fibre Polymer		Synthetic fibres are man – made from chemicals. They are generally based on polymers. A polymer is a substance which has a molecular structure built up chiefly of a large number of similar units bonded together.	It is used in mass to make cloth or rope. These are not biodegradable Their properties are: Strong, non- absorbent
Regenerated fibre		Created by dissolving the cellulose area of plant fibre in chemicals and making it into fibre again, examples are Lyocel and viscose	It is used in mass to make cloth or rope. These are bio-degradable.
			A needle is used in sewing to pull thread through cloth
		A filament, a group of filaments twisted together, or a filamentous length formed by spinning and twisting short textile fibres into a continuous strand	To join material together or used to create material.
Scissors		A pair of scissors consists of a pair of metal blades pivoted so that the sharpened edges slide against each other when the handles (bows) opposite to the pivot are closed.	

Homework 7

Independent research of a:

- Plain weave
- Twill weave
- Satin weave

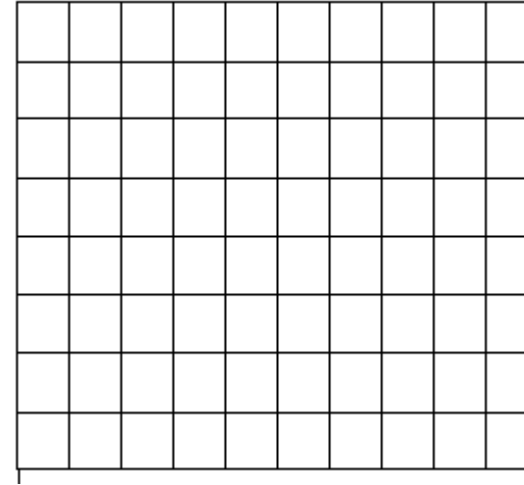
Fill in the squares for each weave.

You must indicate the warp and weft

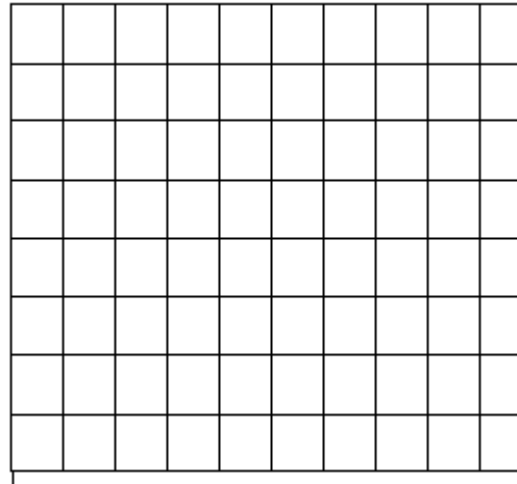
You must say what type of product would use this weave and why.

You must produce a paper sample of one of the weaves fully labelled – warp & weft

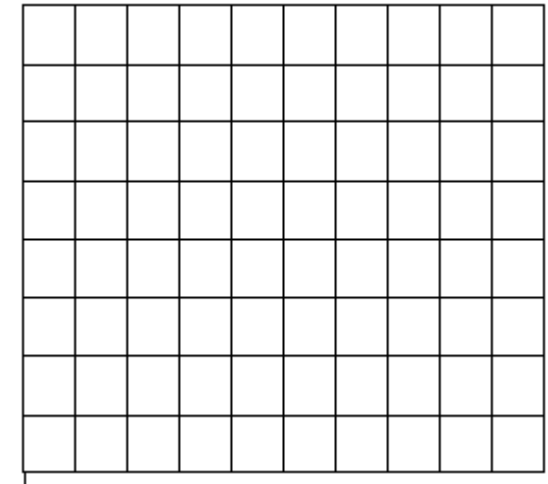
Plain Weave



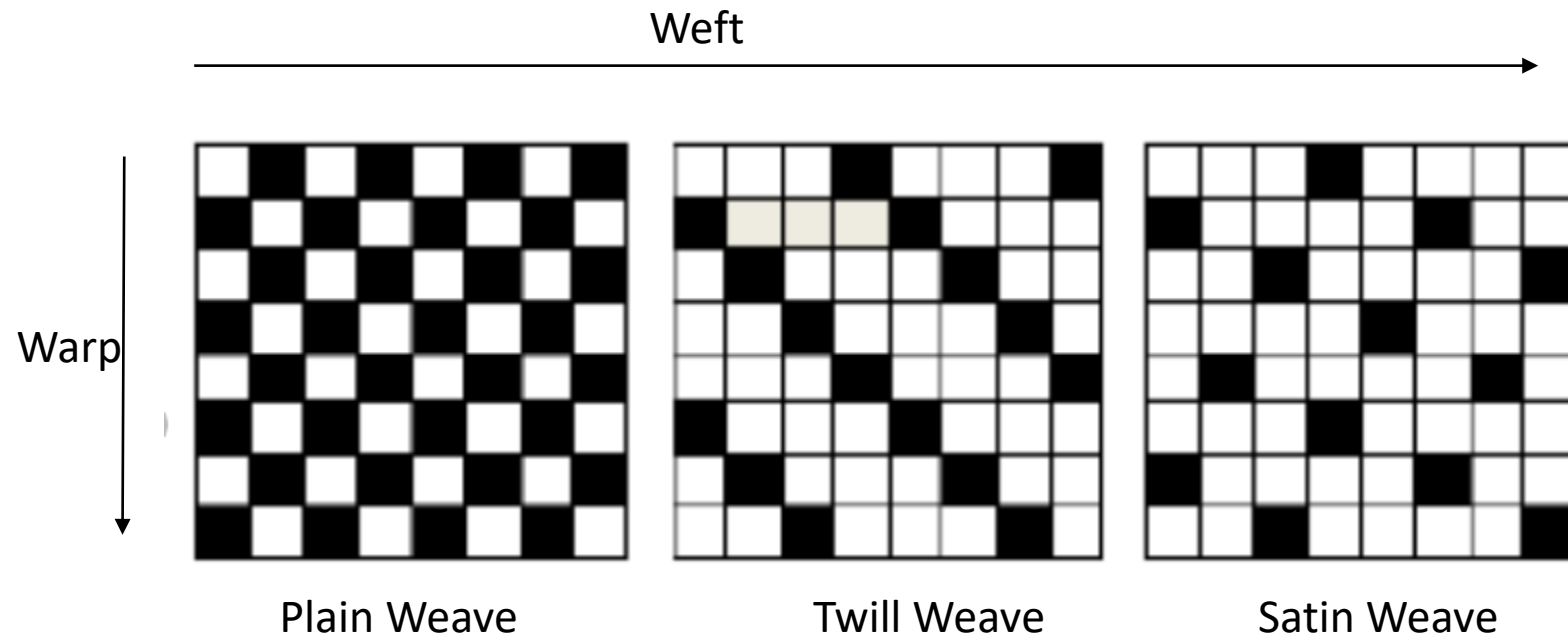
Twill Weave



Satin Weave

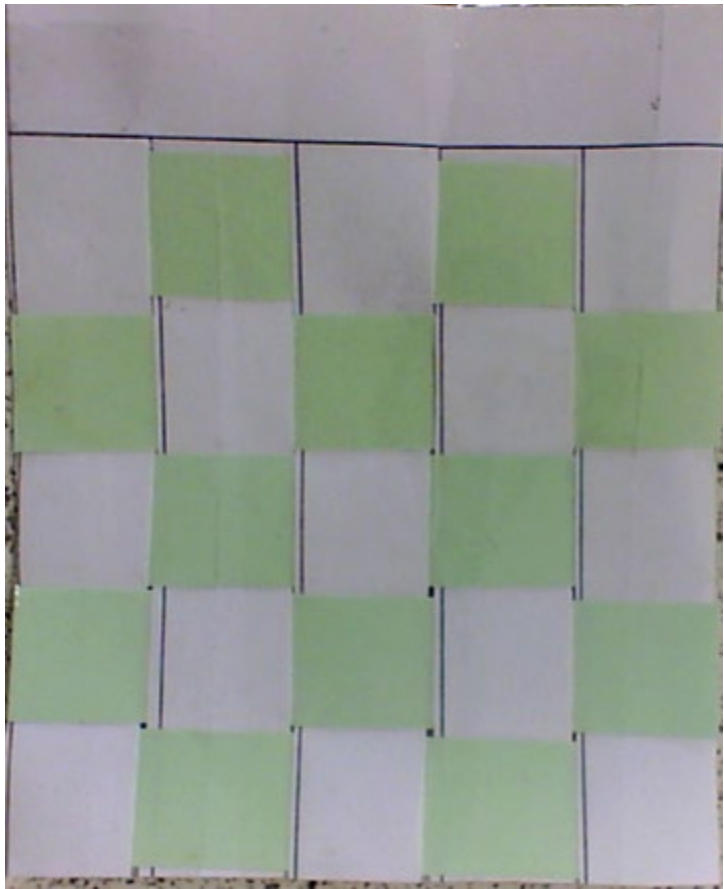


Homework 7 - answers



Homework 7 Test

You must produce a paper sample of one of the weaves and fully labelled it.

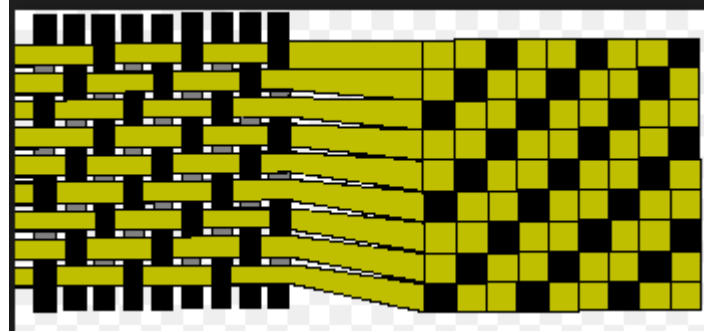


The paper sample I have made is.....

..... Marks/6

Homework 8

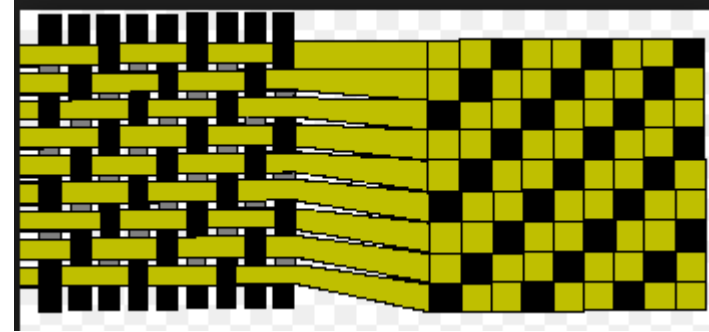
Find the answers about this weave



- Find out the name and label the warp and weft of this weave
- What type of product would it be mainly use it?
- What would be the fibre/yarn?
- Name two properties of this weave

Homework 8

Test



- Name and label the warp and weft of this weave - 3 marks
- What type of product would it be mainly use it? – 2 marks
- What would be the fibre/yarn? – 1 mark
- Name two properties of this weave – 2 marks

..... Marks/8

Homework 9

What are the 6R's?

Write a paragraph on the impact of the 6R's to the environment.

Homework 9

Test

List the 6R's

1.

2.

3.

4.

5.

6.

Write a paragraph on the impact of the 6R's to the environment.

..... Marks/10

Homework 9

Test

List the 6R's

1. Rethink/Reinvent
2. Reuse/Repair
3. Recycle
4. Replace/Rebuy
5. Reduce
6. Refuse

Write a paragraph on the impact of the 6R's to the environment.

..... Marks/10

Homework 10

Revise for : End of module test – This is all the tests through the module amalgamated.

Use the Knowledge Organiser and your previous test notes

Key words

Textiles
Needle
Thread
Embroidery
Fibre
Fabric
Weaving
Spinning
Bonding
Knitting
Source
Origin
Property

The Six R's of sustainability help designers think about designs and designing in the following way:

RETHINK - our current lifestyles and the way we design and make.

REFUSE - to buy materials and products that are unsustainable.

REDUCE - the amount of energy and materials used to manufacture a product.

REUSE - the product for something else so you don't need to throw it away.

REPAIR - the product so you don't need to throw it away.

RECYCLE - finally take the product apart and categorise the parts ready for being converted into another product. This uses a lot of energy

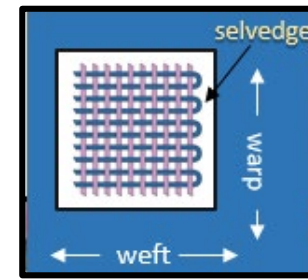
Invention	Inventor	Date	Function
Flying Shuttle	John Kay	1733	Increased speed of weaving, caused need for new spinning machines
Spinning Jenny	James Hargreaves	1764	Performed 8 times more quickly
Water Frame	Richard Arkwright	1769	A water wheel powered spinning frame.
Spinning Mule	Samuel Crompton	1779	A combination of the spinning jenny and the water frame. Different thicknesses of yarn could be spun.
Cotton Gin	Eli Whitney	1794	Separated cotton from seeds.

Year 7 Textiles

Hand Embroidery

Using sewing for decoration.

- Running stitch
- Back stitch
- Chain stitch
- Blanket stitch



WEAVE PATTERNS

PLAIN

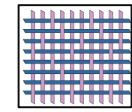
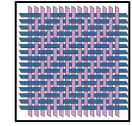
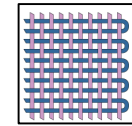
- Equal amounts of warp and weft.
- Used for fashion & furnishing fabrics

TWILL

- Diagonal effect
- Hardwearing, used for jeans, jackets etc.

SATIN

- Complex pattern. Long floating threads give a smooth often shiny effect.



Applique

Creating a design on top of fabric, using contrasting fabric.



FABRIC CONSTRUCTION

Fabrics can be woven, knitted or bonded(non- woven).

WOVEN FABRIC

FIBRE



YARN



FABRIC



SPINNING (Twisting)

WEAVING

ORIGINS OF FIBRES

FIBRES

NATURAL

MAN-MADE



ANIMALS

Wool from sheep
Silk from silkworms



PLANTS

Cotton from cotton plant
Linen from flax plant



SYNTHETIC

Polyester from coal
Acrylic from oil



REGENERATED

Processing cellulose
Satin from rayon

THE INDUSTRIAL REVOLUTION

- Production changed from cotton industry to in big factories.
- Machines were invented that made fabrics easier to produce.
- Fabrics were made more quickly and at a lower cost
- Lancashire was the centre of the cotton industry.
- Working and living conditions were poor.
- Children worked long hours in poor dangerous conditions to support their families.

End of module Test

Question	Answer
When did the industrial revolution start and what is the cottage system?	
What did industrialisation lead to?	
Who invented: The flying shuttle Spinning jenny	

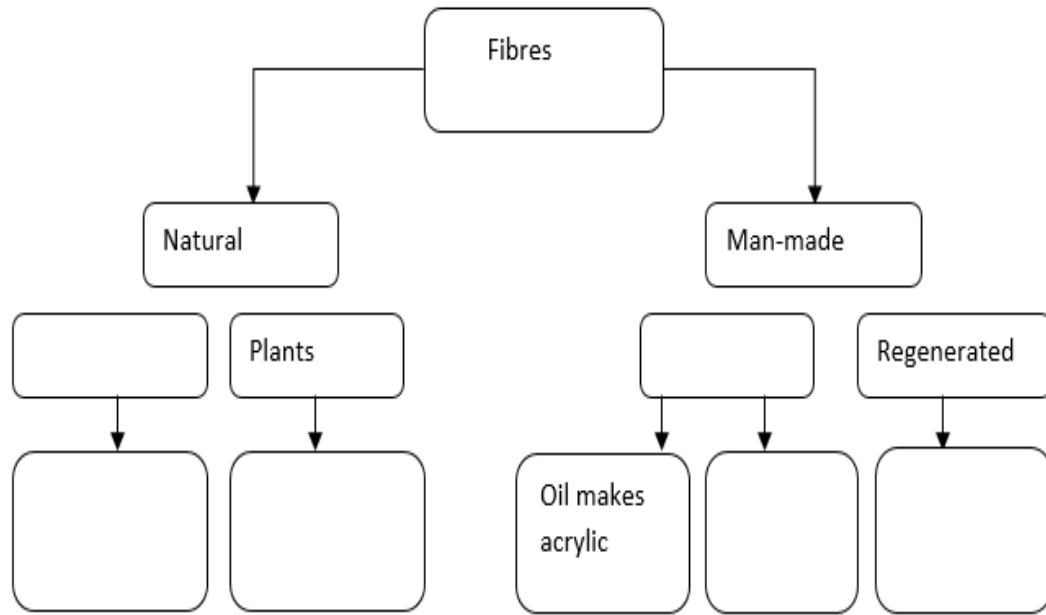
6 Marks

Homework 6 Key technical words: spelling, meaning & use. Fill in the blanks

Key technical terms	Meaning	Use
Fibre	A fibre is a thin thread of a natural or artificial substance.	It is used in mass to make cloth or rope
Natural fibre		It is used in mass to make cloth or rope. These are bio-degradable. Their properties are: Cotton – absorbent, cool Wool – Absorbent , warm Silk – Strongest natural fibre, warm when cool, cool when hot
Synthetic fibre Polymer	Synthetic fibres are man – made from chemicals. They are generally based on polymers. A polymer is a substance which has a molecular structure built up chiefly of a large number of similar units bonded together.	
Regenerated fibre	Created by dissolving the cellulose area of plant fibre in chemicals and making it into fibre again, examples are Lyocel and viscose	It is used in mass to make cloth or rope. These are bio-degradable.
Needle	For hand-sewing, is a long slender tool with a pointed tip at one end and a hole (or eye) at the other.	A needle is used in sewing to pull thread through cloth
Thread		
Scissors	A pair of scissors consists of a pair of metal blades pivoted so that the sharpened edges slide against each other when the handles (bows) opposite to the pivot are closed.	Scissors are used for cutting various thin materials, such as material

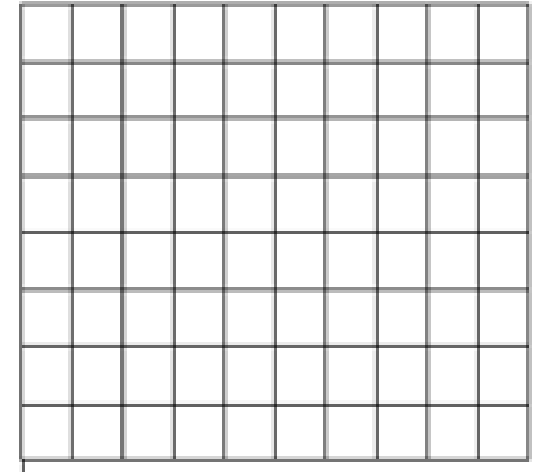
6 Marks

Fill in the blanks



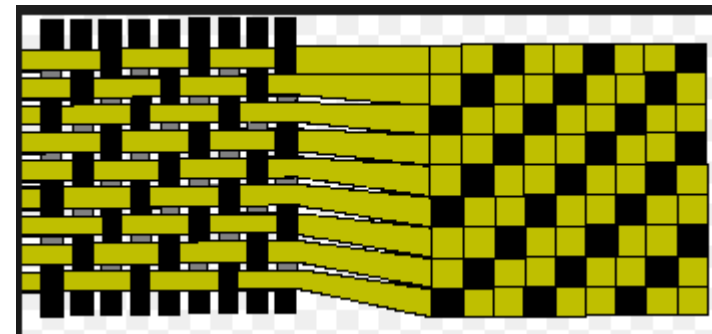
6 Marks

Complete a plain weave filling in the boxes



2 Marks

- Name and label the warp and weft of this weave - 3 marks
- What type of product would it be mainly use it? – 2 marks
- What would be the fibre/yarn? – 1 mark
- Name two properties of this weave – 2 marks



Question	Answer
<p>Describe applique? List the steps</p> <p>3 marks</p>	<p>1</p> <p>2</p> <p>3</p>
<p>Name 3 hand embroidery stitches</p> <p>3 marks</p>	<p>1</p> <p>2</p> <p>3</p>

List the 6R's

Total marks

6 R's	
1	
2	
3	
4	
5	
6	

6 Marks

Write about the impact of the 6R's on the environment

4 Marks



Fill in the gaps

Metric units of measure (1)



10 marks

Length

Unit	Symbol	Meaning	Approximate size	Diagram	Use
millimetre					
centimetre	<i>cm</i>	One hundredth of a metre $1\text{ cm} = 0.01\text{ m}$	The length of a finger nail (recently trimmed).		To measure a hand span
metre	<i>m</i>	<i>Standard metric unit</i>	The average height of 3 year old child.		To measure the dimensions of a room
Kilometre					

Total Marks: /60