Year 8 Textiles Scheme of Work - Unit 1 & combined

Students to learn:

- Where fabrics come from and how fabrics are made.
- How to hand stitch and use a sewing machine safely
- How to construct a 3D item using a pattern
- How to design and make a soft toy for a specific target customer

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1. Key Stage

Early KS3 Year 7

Textiles: Wider use in today's society

2. D&T focus

Technology in society

P.O.S coverage

EB3, EB7

4. What could students design/make, and who may use them?

This unit is concerned with understanding the range and applications of textiles. Designing and making for users may be an appropriate additional task once full

6. Possible topics / themes

Materials in society, and manufacturing; sustainability issues associated with product manufacture; new and emerging technologies.

7. D&T areas

- Designing
- N/A
- Making
- N/A.
- Evaluating
- Existing products and emerging technologies and the wide range of applications of textiles, including a focus on sustainability.
- Technical knowledge
- Opportunities may emerge for students to further explore commercial products and the materials and processes used in their manufacture.
- Cooking and nutrition
- N/A

9. Possible resources

21st Century Smart and Technical Textiles

Fibre to Fabric:
Textiles processes

Samples or illustrations of textiles used in different industries: seat belts, tyres, bandages, sportswear, etc.

10. Key vocabulary

geo-textiles, synthetic, industrial, medical, smart nets, awnings, tarpaulins, house insulation, carpets, upholstery, furnishing, tent, sleeping bag, parachute, fire blanket, ropes, tyres, fan belts, air bags, fuel filters, mops, dust cloths, bandages, gauze, wound dressing, nappies, sanitary products, absorbent pads, sportswear fluorescent, thermochromic, photochromic, conductive, polyester, polypropylene, mycelium, membrane

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8. Related learning in other subjects

5. Unit context /

Explore the wider

different contexts:

manufacturing,

personal items...

agriculture,

use of textiles in

brief

medical.

- Science the characteristics and functions of materials used in technical textiles.
- Speak to colleagues to see how this can fit into other subject areas.

11. Characteristics

Alphaskin

Career preparation from this unit could link to roles in industrial, medical and agricultural product design, sportswear and sustainability sectors.

12. Health and safety

Pupils should be taught to work safely, using tools, equipment, materials, components and techniques appropriate to the task.

Risk assessments should be carried out prior to undertaking and practical work in this project.

3. Key learning in D&T

Prior learning

- Know that that a 3D textiles product can be made from a combination of fabric shapes.
- The impact products have beyond their intended purpose.

Understanding

- Textiles isn't about just sewing clothes and cushions.
- A wide range of materials can be used in textiles products for many different purposes.
- Technical textiles are hugely important to us and the way we live.

By the end of the unit students will:

- Know and understand that textiles play a massive part in our everyday lives apart from the obvious fashion and interior furnishing sectors
- Show through independent investigation an understanding of at least one type of technical textile and how it has been engineered for a specified end use
- Demonstrate an understanding of more than one example of the wider use of textiles
- How are textiles used in today's society? How has conductive thread and fabric, use of composite textiles in the automotive industry and the use of textiles
 in medicine had an impact on our world?
- Using this, students should understand the wider role of textiles in everyday lives, beyond fashion and furnishing. They should investigate technical textiles for specific uses and demonstrate an understanding of the wider use of textiles. Examples from a range of industries are used to illustrate different uses and applications.
- How teachers choose to allocate this work will depend on their students. A suggestion might be to make it group work with a presentation to the rest of the class as the opportunity for assessment.
- It is recommended that teachers choose websites and articles from which students can get their information as some of it is very scientific and challenging
 to comprehend it goes way beyond what is required at this stage.
- National Curriculum learning objectives
- · EB7 Evaluate new and emerging technologies
- EB3 Evaluate products that they are less familiar with using themselves
- By the end of the unit students will:
- Know and understand that textiles play a massive part in our everyday lives apart from the obvious fashion and interior furnishing sectors. This should be
 demonstrated by an investigation into the wider use of textiles in society where the students are able to give examples e.g. impact of conductive thread and
 fabric, use of composite textiles in automotive industry, medical textiles and links to computerised embroidery [EB3, EB7]
- Show through independent investigation an understanding of at least one type of technical textile and how it has been engineered for a specified end use [EB3, EB7]
- Demonstrate an understanding of more than one example of the wider use of textiles [EB3]

Key Learning:

- Textiles isn't about just sewing clothes and cushions
- Technical textiles are hugely important to us and the way we live

























Unit 1											
Week	1	2	3	4	5	6	7	8	9	10	11
Big Ideas (key concepts)	Textiles isn't about just sewing clothes and cushions Technical textiles are hugely important to us and the way we live	Know and understand that textiles play a massive part in our everyday lives – apart from the obvious fashion and interior furnishing sectors Show through independent investigation an understanding of at least one type of technical textile and how it has been engineered for a specified end use Demonstrate an understanding of more than one example of textiles	Develop detailed design specifications to guide their thinking DA 2 - use research including the study of different cultures, to identify and understand user need DA 3 - identify and solve their own design problems	To understand how to annotate and refine your design.	To know how to use a sewing machine.	To understand how to select appropriate materials and fabrics for your design.	To understand the process of sewing your soft toy together and how to add stuffing	To understand the process of sewing your soft toy together and how to add stuffing	To understand the process of sewing your soft toy together and how to add stuffing	To understand the importance of finishing your soft toy to a high standard whilst taking safety into consideration.	To understand how to evaluate your soft toy fully and use your evaluation to inform your work next year.
Lesson Topics Sequence	KO starter Project and term overview Talk through Ppt on wider use of Textiles, technical uses, smart and medical uses. HW further research on technical fabrics and smart materials Review Qs	KO stater LO and recap project Students design future uses of fabrics and technological advances in Textiles Review questions	KO stater LO and introduce project of designing and making a soft toy Mind map ideas for ugly doll theme Students design their own unique ugly doll Review questions	KO stater LO and recap project Students finish off design ideas and chose final idea for their product, adding annotation Review questions	KO self quizzing LO and recap Demonstration of how to use a sewing machine, driving test Demo of making a pattern, students begin making their own pattern Review questions	KO self quizzing LO and recap Demonstration of how to use a sewing machine for those not completed last lesson. Driving test Students making their own pattern. Review questions	KO self quizzing LO and recap Applique any pieces on soft toy Review questions	KO self quizzing LO and recap Sewing soft toy together Review questions	KO self quizzing LO and recap Sewing soft toy together Review questions	KO self quizzing LO and recap Sewing soft toy together Review questions	KO self quizzing LO and recap Completion of soft toy and evaluation Review questions.

Key Resources	Ppt Design sheets	Ppt Design sheets		Power point Sewing machines Design sheets Paper for patterns Pre-made patterns for support	Power point Sewing machines Design sheets Paper for patterns Pre-made patterns for support	Power point Sewing machines Design sheets Fabrics for soft toy stuffing	Power point Sewing machines Design sheets Fabrics for soft toy stuffing	Power point Sewing machines Design sheets Fabrics for soft toy stuffing	Power point Sewing machines Design sheets Fabrics for soft toy stuffing Power point Sewing machines Design sheets Fabrics for soft toy Stuffing	Power point Sewing machines Design sheets Fabrics for soft toy stuffing Power point Sewing machines Design sheets Fabrics for soft toy Stuffing Evaluation sheets	Power point Sewing machines Design sheets Fabrics for soft toy stuffing Power point Sewing machines Design sheets Fabrics for soft toy Stuffing Evaluation sheets
Key learning and skills	Textiles isn't about just sewing clothes and cushions Technical textiles are hugely important to us and the way we live	Know and understand that textiles play a massive part in our everyday lives – apart from the obvious fashion and interior furnishing sectors Show through independent investigation an understanding of at least one type of technical textile and how it has been engineered for a specified end use Demonstrate an understanding of more than one example of the wider use of textiles	How to finalise designs and decide how they will become a reality	To know how to use a sewing machine Using a sewing machine Making a pattern	Selecting suitable fabrics and materials Making a pattern	Right and wrong side of fabric How to start constructing a 3D object from 2D fabric Soft construction	Right and wrong side of fabric How to start constructing a 3D object from 2D fabric Soft construction	Right and wrong side of fabric How to start constructing a 3D object from 2D fabric Soft construction How to plan and include stuffing when sewing your soft toy together Soft construction	Right and wrong side of fabric How to start constructing a 3D object from 2D fabric Soft construction How to plan and include stuffing when sewing your soft toy together Soft construction		How to evaluate purposefully