

YR7



Welcome Aboard

How can I use the kitchen to prepare ingredients and cook safely?
What is the Eat Well Guide and how can I eat a balanced diet?

Maritime Futures: What careers are available in the maritime industry? What are current and historic maritime versions of the dishes?

Eco Futures: How are the foods we eat transported? Are there any local alternatives? What are the environmental issues with a diet including HBV sources of protein? Feeding the nation - Food waste and Food banks. Food provenance and local produce: IOW, England, Britain, UK



Y7 UNIT 1



Drawstring bag

How can I use the sewing machine safely to produce neat seams?

What techniques can I use to embellish and personalise my fabric product?

Maritime Futures: How can I design and make a product for a maritime focused design brief?

Eco Futures: What other eco fabrics are there that we could use? Where do the fabrics we use come from? What are natural fabrics and where do they come from? How can we recycle fabrics? How can we use off-cuts within the community? What fabrics are made from waste? - sea-plastic – trainers; cups; plastic bottles

Y7 UNIT 2



Model pond yacht

How can I safely use tools and machinery to manufacture a model pond yacht?

How can I use the Centre of Effort and Centre of Lateral Resistance to design a seaworthy model pond yacht?

Eco Futures: What are examples of sea going vessels that have been used in environmental campaigning? What is the Plastiki sailboat? What is the effect of changing weather patterns on sailing?

Y7 UNIT 4



Plywood Secrets box

Which hand tools and machinery can I use safely to manufacture a quality product?

How could I use CAD/CAM within my finished product?

Maritime project: What is marine plywood?

Eco Futures: What are the timbers groups and where in the world are they forested? How are timbers transported around the world? What are alternatives?

Y7 UNIT 3

YR8



'Cooking in the galley'

How can I use the hob and oven safely to produce a range of cooked and baked food products?

How do I know when I have a well-made and nutritious food product?

Maritime project: What can we cook and bake on a ship? Are fish a viable caught food source? Hugh Fearnley-Whittingstall campaign.

Eco Futures: What are staple foods of different countries? Where do fruits come from? What are locally caught, reared and grown sustainable foods? Are there alternatives to protein (bugs and high-tech alternatives)? What are the ways we can compost food waste?



Y8 UNIT 1



Shorts

How can I use the sewing machine to make an open seam?

How can I use a pattern to make a fabric product?

Maritime project: Risks to coastlines around the world.

Eco Futures: What are the environmental challenges of using dyes and colour changing techniques? Where in the world do we manufacture fabrics? Where does clothing and textiles waste go to?

Y8 UNIT 2



Model Powerboat

How can I work effectively within a team to assemble a product?

What careers are available within the maritime industry?

Eco Futures: What are possible sources of power for future powerboats? What is hydrogen power? Are there electric powerboats?

Y8 UNIT 4



Automaton

Which CAMS would suit different types of motion?

When would it be appropriate to use different hand tools and machinery to manufacture a product?

Maritime project: What are the different types of motion and how can these be used in a maritime focused product? Where are the types of motion within the maritime sector?

Eco Futures: How do we use CAMS to solve Eco problems around the World?



Y8 UNIT 3

YR9



'Around the World'

What is a food group and how can I combine nutritious ingredients?

How can I analyse food products and improve them?

Maritime project: How can I cook and bake international and cultural foods from around the world?

Eco Futures: Food availability; Where does our food come from – where is it grown? What does food labelling tell us about a food's origin? What are seasonal foods? How can we eat more locally and seasonally? Food provenance. How is our food processed and transported? How and why is food wasted? How can we grow our own fruit and vegetables?

Y9 UNIT 1



Hats

How can I respond to a contextual challenge?

How can I design a pattern to fit and personalise a fabric product?

Maritime project: Using a product to meet a maritime contextual challenge – aboard a sailboat.

Eco Futures: How can I learn skills to repair fabric products?

Y9 UNIT 2



Boat Challenge

How do I complete an investigation and research into boat hull design, cargo and stability?

How do I prepare for models to be tested?

Maritime project: What are the issues with transportation of goods on our seas? How and where do we transport our goods on the sea? What happens when the goods arrive at the docks?

Eco Futures: How could we travel if/when sea levels rise? What might happen to the Isle of Wight if sea levels rise?

Y9 UNIT 4



Passive Amplifier

How can I design and manufacture a product with a limited amount of materials?

Why do we make a model when testing a design idea?

Maritime project: Using a product aboard a sailboat that needs ZERO power to amplify music.

Eco Futures: What are the environmental issues with using timbers? What is deforestation? What is sustainable timber? Where do our timbers come from? How can we calculate the % waste when we make a product? How can we reduce the amount of waste we produce?

Y9 UNIT 3

KS4

