



Nutrition – eating the right foods

Henry VIII was born in 1491 and lived to be 55. As a young man he was fit and healthy but as he got older he became very overweight and not very healthy. He enjoyed great feasts.

- 🕒 Can we find out what Henry VIII might have eaten at a feast?
- 🕒 How could he have changed his diet to eat healthier?
- 🕒 Can we plan a healthy Tudor feast for Henry VIII?

Conditions for growing plant

Tudor people grew lots of herbs that we know today, eg lavender, thyme, lemon balm, rosemary. They were often grown in knot gardens, which were fashionable at the time. The beds were laid out in complicated patterns that look a bit like a knot.

- 🕒 Can we grow some Tudor plants?
- 🕒 What helps them to grow well?
- 🕒 What happens to them as they grow?
- 🕒 We could keep a diary to show how they grow.

Sounds and their sources

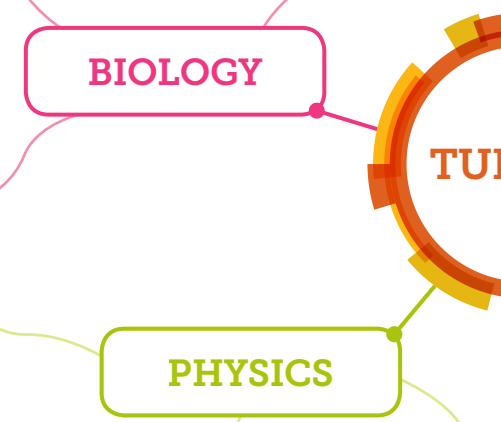
Music was very important in Tudor times. Some people had jobs as musicians. They would play instruments such as the lute, the harp, the recorder, the virginals and the harpsichord.

- 🕒 Listen to some Tudor music and look at pictures of Tudor musical instruments. What sort of sounds can you hear?
- 🕒 Which instruments do you think made them?
- 🕒 How do you think the sounds are made?

Habitats and environment

Sir Walter Raleigh and Sir Francis Drake travelled on long voyages of exploration. Drake went all round the world and Raleigh had adventures in America. On their travels they saw lots of different types of plants and animals.

- 🕒 Can we find out where Raleigh and Drake sailed?
- 🕒 What kinds of animals might they have seen on their journeys?
- 🕒 What kinds of animals live around our school?
- 🕒 Will we see the animals that Raleigh and Drake saw?



Light sources

There was no electricity in Tudor homes. People didn't have electric lights they could turn on when it was dark.

- 🕒 What light sources could the Tudors have used?
- 🕒 How could the Tudors make light so they could see at night?
- 🕒 Why do you think electric lights are better than other light sources for lighting homes?

Identifying and grouping everyday materials

There are lots of Tudor buildings still standing today, eg Hampton Court Palace, Little Moreton Hall, Wollaton Hall, Speke Hall.

- 🕒 What materials can you identify in a Tudor house? Let's make a list!
- 🕒 Can you see any of these materials in our houses today? We can make another list and compare it with the Tudor house.



Forces: buoyancy

The Mary Rose was an important Tudor battle ship. She was built in 1511 but sank in 1545 but no one is quite sure why she sank. The wreck was discovered in 1971; now you can see it in a museum.

- 🕒 Can we make our own models of the Mary Rose that will float?
- 🕒 How much treasure (pennies) will our boats hold before they sink?
- 🕒 Whose boat will hold the most treasure?

Changes in materials: melting

Instead of envelopes, Tudors used sealing wax to close their letters. They would melt wax, let it drip onto the paper and, while it was still soft, press a mark into it. When the wax turned back to solid it would hold the letter closed.

- 🕒 What can you think of that melts and turns back into a solid?
- 🕒 Can we make our own Tudor seals using modelling clay?

Changes in materials

Tudors used dyes to colour cloth. The dyes usually came from plants: walnut made a brown colour, a plant called madder made a red colour and woad made a blue colour.

- 🕒 Can we use parts of plants to make our own dyes? We could try coloured plants like beetroot, blackberries or tomatoes.
- 🕒 How many different colours can we make?
- 🕒 Which parts of the plants make good dyes?
- 🕒 Which materials (eg paper, plastic, wool, cotton, metal) are good for dyeing?



Written by: **Helen Topliss**





Basic structure of a plant and functions of parts of a plant

Sir Walter Raleigh was one of the first explorers to go to America. When he returned from America, he brought potatoes to Britain for the first time.

🕒 What part of the plant is a potato? 🕒 Which other parts of plants do we eat? 🕒 Can we make a table to show what foods come from plants and which part of the plants we eat?

Nutrition – eating the right foods

Conditions on board Tudor explorer ships were harsh. Sailors couldn't carry much fresh food, so they ate salted fish and meat, and ship's biscuits. Lots of sailors developed scurvy and some even died from it.

🕒 What can we find out about scurvy and about what causes it? 🕒 Why did the Tudor sailors suffer from it? 🕒 What advice would you give them?

Uses and properties of materials

In Britain, glass was first used to make windows in Tudor times. Glass was very expensive, so most people could not afford it. Instead, people used polished animal horn or cloth to cover their windows.

🕒 Can we make a list of reasons why glass is good for making windows? 🕒 Can you think of any other materials that are good to make windows?

Changes of state

Tudor winters were often very cold. Sometimes the river Thames would freeze completely so that fairs could be held on the frozen water.

🕒 What do we know about water freezing? 🕒 Why is it a problem on the roads/in our houses when water freezes during the winter? 🕒 Council workers put salt on the roads in winter. What can we investigate why they do this?

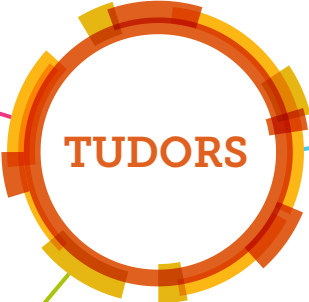
Keeping teeth healthy

Sugar was new to Britain in Tudor times but was so expensive only very rich people could afford it. Queen Elizabeth loved sugar and had very bad teeth but was frightened to see the dentist. Tudors had all sorts of recipes for tooth cleaning powder.

🕒 How do you think the Tudors cleaned their teeth if toothpaste hadn't been invented? 🕒 What advice would you give to the Tudors to help them keep their teeth healthy? 🕒 Can we make a poster to show them what to do?

BIOLOGY

CHEMISTRY



Uses and properties of materials

Ships were important during Tudor times; they were needed for the navy, for trading with other countries and for exploring the world.

🕒 Can we find out what materials Tudors used to build their ships? 🕒 What properties do these materials have that makes them good for building ships? 🕒 We could make a table to show the materials, what they were used for and their useful properties. 🕒 Can we find out what materials are used to build ships today? How are their properties useful?

Magnets

During Tudor times, sailors went on many voyages of exploration. They tried to find new lands that nobody else knew about. Sailors used compasses to help them navigate.

🕒 What happens if you put a magnet close to a compass? 🕒 How do you think a compass works? 🕒 We can magnetise a needle by stroking it with a magnet. Can we make a simple compass?

PHYSICS

Sound: pitch and volume

Music was very important to the Tudors. Tudor musicians would play instruments such as the lute, the harp, the recorder, the virginals and the harpsichord.

🕒 What can we find out about these instruments? 🕒 What did they look like and how were the sounds made? 🕒 How are they similar to instruments we play today? 🕒 Can we make a table to compare how to make sounds louder or quieter in different instruments? 🕒 How would we change an instrument's pitch?

Forces: buoyancy

Ships were important during Tudor times. Ships were needed for the navy, for trading with other countries and for exploring the world. They carried sailors, heavy cannons and lots of cargo.

🕒 Can we make a boat that floats? 🕒 How much cargo can our boats hold before they sink? 🕒 What shape of boat will carry the most cargo?



Written by: **Helen Topliss**





Effects of drugs

When Europeans arrived in America they found that the people there smoked and chewed tobacco. They believed it was good for their health. Sir Walter Raleigh brought tobacco back from America. He became addicted to smoking a pipe and many people followed his example.

🕒 What effects do tobacco and smoking have on our bodies? Write a letter to Sir Walter Raleigh to explain the dangers of smoking.

Harmful effects of microorganisms

Tudor people didn't have fridges to keep food fresh. They knew that fresh food would soon go bad and found others ways to preserve it.

🕒 What different ways can you find to preserve food and stop microorganisms growing? 🕒 Do some methods work better than others? 🕒 Can we create a poster to show the different ways to preserve food?

Balanced forces

Tudor ships were only powered by the wind and journeys could take years. Ships had square and triangular sails. If the wind dropped the ships would often float motionless on the ocean.

🕒 Are square sails or triangular sails best on a ship? 🕒 How can we find out? 🕒 Are some boat shapes better than others? 🕒 How can we find out?

Ecosystems

Wolves were common in Britain during Tudor times. People would kill them because wolves eat some farm animals such as sheep. The last British wolf was supposedly killed in Scotland in 1680.

🕒 What sort of habitat do wolves need? 🕒 Can we annotate a picture of a wolf to show how they are adapted to living in that habitat? 🕒 Some people would like to reintroduce wolves to the wild in Scotland. Can we create a storyboard to show what we think will happen next?

BIOLOGY

TUDORS

PHYSICS

Day and night, day length

Tudors did have mechanic clocks but they were very expensive. Many people had pocket sundials. They also used sand timers.

🕒 How can we use shadows to tell the time? 🕒 Can we make a sundial or sand timer? 🕒 Who can make the most accurate time measurer?

Uses and properties of materials

Rich Tudors would wear fine wool, linen, silk, cotton, velvet and fur. Poor people would wear coarse wool, linen and leather.

🕒 Which Tudor people would have been warmest during the winter? 🕒 How can we find out which fabrics are best at keeping us warm in cold weather?

CHEMISTRY

The Earth

By Tudor times, many people knew that the Earth was spherical. Some people, including Sir Francis Drake, had sailed around it.

🕒 What evidence can we collect to show that the Earth is spherical? 🕒 Because the Earth is spherical, when the Spanish Armada appeared, the English would have been able to see the top of the masts first, before they saw the rest of the ships. Can we draw diagrams to show why this happens?

Mixtures of materials: dissolving

Tudors used salt to preserve food. Much of the salt came from evaporating salty water over coal fires.

🕒 Can we get solid salt from salty water? 🕒 What is the fastest way to evaporate the water?

Properties of metals

The Tudors mined ores of copper, iron, tin and lead in Britain. They used gold and silver for jewellery, copper in ship building, for coins and water pipes, iron for armour and weapons, and pewter for plates, cups and knives.

🕒 Can we make a table to show the different metals that Tudors used, what they were used for, and what properties the metals have that made them useful? 🕒 Do metals have any properties that might cause problems?



Written by: **Helen Topliss**

