

Llewelyn ap Norgan









You are about to meet a character from history





His name is Llewelyn ap Morgan, and he is a Welsh lord who fought alongside the great rebel leader Owain Glyndŵr.

Glyndŵr lived over six hundred years ago. He served the English King Richard II, he lived in London for a time and even fought alongside the English against the Scots.

He spoke English and French as well as Welsh.



When Henry IV took the crown of England from Richard, all that changed and Owain, declaring himself the true ruler of Wales, led a great revolt against the King. For a while things went well for Owain and his followers but after many battles the English managed to defeat them. Owain Glyndwr refused to surrender and was never captured. Legend has it that one day he will rise again to fight the English.



Llewelyn ap Morgan went to war protected by armour. In those days both the rider and their horse were covered in steel plates. As this made it impossible to see anyones face, something else was needed so that people could be recognised on the battlefield and they began to paint colours and designs on their armour to tell the world who they were. Their designs would be worn only by them, leaving no one in doubt about their identity. The use of these designs is called heraldry.





Llewelyn ap Morgan lives by the rules of chivalry. These ancient rules say that he must protect the weak, serve his community and defend the church. He must be brave, truthful, generous, polite and well mannered.



One of the most important weapons used by Llewelyn is the longbow. This is a tall bow, about the same height as the person using it.

Welsh bows and arrows were made of ash which is a very flexible and strong wood.





The string was made of hemp-a plant that produces long fibres. The arrow has three hen feathers, known as fletchings, so that it flies straight and a metal tip to punch through armour.





Make the Best Lath

The lath is the part of the bow that bends. Make a series of laths from different materials i.e. wood, metal, plastic.

Make sure that all the laths are the same size. Firmly clamp one end of the lath to a table so that the the other end can bend

Bend the lath down and use it to shoot a lump of plasticine into the air. Estimate the height and write it down. Continue with the other laths to find the best material. Be sure that each sample is bent by the same amount.

Once you've found the best material, try different lengths and see if that makes a difference.



Design an Arrow!



Make the shaft of the arrow from a length of dowel. Take it in turns to throw it (under adult supervision) at a target on the wall. Note the accuracy of each throw.

Now add a head to the arrow. This can be made of Blu Tack or plasticine and it adds weight to the front of the arrow. Repeat the experiment and see if the arrow is more accurate.



Try to get the most accurate arrow by varying the head weight and fletching size. Find out what happens if the fletchings are twisted.



Now add fletching. These could be made of feathers if available but otherwise can be made of thin card or plastic. Once again repeat the experiment and measure the accuracy.

Curriculum

Science

* Being curious and searching for answers is essential to understanding and predicting behaviour.

* Forces and energy provide a foundation for understanding our universe.

* Design thinking and engineering offer technical and creative ways to meet society's needs and wants.

