

## **Lesson Plan One– St Mary's Church, Beaumont**

**Activity Title:** Egg Vehicle Challenge

**Objectives:** **Science** National Curriculum year 5 p.o.s Forces - "explain that unsupported objects fall towards earth because of the force of gravity acting between the Earth and the falling object"

**Design and Technology** Key Stage 2 p.o.s" use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups

Experience the effects of gravity in the natural environment

Construct and test a vehicle able to carry an egg safely down the steep bank next to the church

### **Resources required**

Junk material for construction

Timers

A simple slope using a plank or other appropriate material (if a natural slope is not available in the school grounds)

Eggs

### **Activity**

In school

Explain that St Mary's Church is set on the top of an ancient mound which offers it both good views across to Scotland and excellent defensive characteristics.

Set the children a task to construct a vehicle using junk material to carry a fresh egg down the steep slope next to the church. Link this to the opportunity to defend the mound while still needing to be able to safely carry goods up and down to the church and the small Norman castle and Roman lookout turret which stood there previously.

Children should design their vehicle and identify materials and construction to ensure that an egg can be held safely while still able to move down the slope freely and 'under control'.

The children should test their vehicles in school using either a natural slope if available or one made from a short wooden plank raised at one end using blocks or bricks.

At the church

Children should bring their vehicles to the site and insert the egg before testing them on the slope to the east of the church. The test can be recorded in two parts. Those vehicles which succeed in carrying the egg safely down the path and then the time taken by each vehicle.

Results can be recorded on the a result sheet (see worksheet one)

### **Plenary**

Review the most successful model and discuss the materials used. Ask the children to consider what materials might have been available in the church and locally to build a similar vehicle by people in the past.