

## **DT Task**

Windmills. When we think about a windmill we all have an idea of what they look like, but do we really know why they were created and what they do? This week our DT task should take all week and falls into three clear steps. Task One: Research. Task Two: Design. Task Three: Creation. We cannot wait to see how inventive you can be with the creation of your windmills and we think that the research part will allow you to create an amazing design which really works!

### **Task One.**

Firstly, listen to the loom video, this will tell you a little bit of history about the Windmill and how important they have been, not only to ancient civilisations, but also to people today. You will also want to use the attached research information to complete this task.

To complete the task, you will need to create a time line to show how windmills have changed throughout the ages. You may wish to draw pictures, cut out pictures or write – you could even create it online – whatever you do you need to ensure it is clear and gives an idea of how windmills have changed. A timeline sheet is provided to use if you would like to.

### **Task Two**

Having learnt about windmills it is now your chance to design a windmill. We would like you to look at the images of windmills which have been created throughout the ages and design your own windmill.

We are looking for you to create something which continues to spin even if the wind source (such as a hairdryer!) is removed. A sheet of inspiration has been provided which might give you some ideas about how you will create your windmill, however we are looking for it to spin easily and have the potential (if you were to hook it up!) to produce power!

In this part of your task we would like you to design your windmill, you will be asked to identify the equipment you will need to create your windmill (remembering that you will need to make this design and therefore you need to have these things in your home) and explain why you chose this design.

We would like you to put thought into:

- ✓ Shape of the blades
- ✓ Size of blades
- ✓ Thickness of blades
- ✓ Number of blades
- ✓ How the shaft is attached to the body.

A design sheet has been provided.

### **Task Three**

Using your design, we would like to ask you to create a windmill. This windmill should spin even if the wind source (such as a hairdryer) is removed.

Once you have created your windmill you need to test it. We would like to ask you to record how long it spins after the wind source is removed (we are recommending a hairdryer as a wind source). Once you have recorded how long it spins, take a photo or short video of your windmill in action and send it to us with your spin time and we will see whose was the most efficient! Have fun!