

Welcome to the Heckington Windmill Challenge Badge!

The Challenge Badge is split into four sections:

1. Food and Baking

A great challenge to get everyone cooking!

Includes making bread, decorating cakes, designing recipe leaflets, baking cakes & explore where flour comes from.



2. Design & Technology

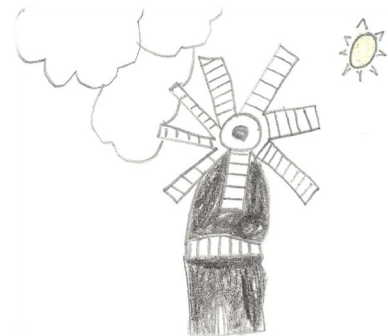
Try building your own windmill!

Includes making windmill models, discover more about wind and weather & how windmills work.

3. History & Art

See what you can discover!

Includes poem writing, research & visit a local windmill, design a poster, draw a windmill or dress up in Victorian style costume



4. Get Crafty!

Bring out your creative side !

Includes making salt dough models, corn dollies, building a collage, & making flour sculptures.

How to gain your badge

- **KS1, including Rainbows & Beavers**
Complete One Activity from Each Section
- **KS2, including Brownies & Cubs**
Complete Two Activities from Each Section
- **KS2 & Above, including Guides & Scouts**
Complete Two Activities from Each Section and
Two Others



When you have completed the challenge, please apply to Heckington Windmill for your badges.

These cost £1 each plus £1.95 towards P&P per order.

Email: enquiries@heckingtonwindmill.org.uk

Order Online: www.heckingtonwindmill.org.uk

Phone: 01529 461919

Post: Heckington Windmill, Hale Road, Heckington,
NG34 9JW

Heckington Windmill is a Grade I listed building built in 1830 and is the only working windmill in the world with 8 sails.

It is located in the heart of Lincolnshire where there is plenty of wind for turning the sails to grind flour.

The windmill is open for visitors (especially guiding groups!) every Friday, Saturday and Sunday. It is open every day during the school summer holidays and at other times by special arrangement, including evenings during the summer.

The windmill is within walking distance of Parva House, a Residential Activity and Training Centre within Lincolnshire South County area.

www.girlguidinglincolnshiresouth.org/parva-house

The perfect place to complete your Heckington Windmill Challenge!

Hale Road, Heckington, Lincolnshire, NG34 9JW

www.heckingtonwindmill.org.uk

1. FOOD & BAKING

- Find out where flour comes from
- How it is made?
- Use two different sorts of flour to make bread rolls – white or wholemeal. Use the attached recipe. Shortcut - buy a packet mix
- Make a rock cake. Download a recipe online
- Buy pre-made plain fairy cakes and decorate with windmill patterns
- Create and decorate a recipe card for bread-making



2. DESIGN & TECHNOLOGY

- Make a working model of a windmill using a construction kit
- Create a 3D model of Heckington Windmill – download our template or use junk modelling
- Find a picture of a wind turbine – compare it with Heckington Windmill
- What other things can be used to power a mill which are sustainable?
- Design a kite, make and fly
- Find out how to measure wind speed and direction
- Design a pattern for a weather vane



3. HISTORY & ART

- Find and perform a song or poem about a windmill
- Write an acrostic poem or song about a windmill
- Find your nearest windmill or watermill and plan a visit there. Visit it if possible. Use the Heckington Virtual Visit
- Design a poster or leaflet that would encourage a visitor to go there.
- How many mills were in your local area?
 - Find out about their history and what they were used for
 - Draw or paint one
 - Find out what is there today
- Dress up in Victorian style costume



4. GET CRAFTY!

- Make a salt dough sculpture e.g. a mouse, a cat, a windmill, an owl, a miller
- Find out about corn dollies and make your own. Is there a special pattern for your area?
- Make a bookmark. Download our unique 8-sail template
- Create a collage of a windmill. Why not include food packaging and pasta
- Make and decorate a dial showing the parts of the compass
- Fill a box with flour and use it to make sand castle sculptures



Traditional White Bread Recipe

Ingredients

500g Strong White flour (from Heckington Windmill if possible!)
320ml warm water
Half teaspoon salt
One tablespoon cooking oil
One sachet dried yeast

Method

Put the flour, salt and yeast in a mixing bowl, and make a well in the centre.

Pour in the oil and warm water, and stir gently, gradually drawing the flour into the liquid until it is all mixed together. You can stir with a fork, or the traditional way with the tips of your fingers.

Keep mixing and working the sticky dough until it makes an elastic ball with an even texture. If it is too sticky, add some more flour to the outside of the ball and work it in your hands. The best way to clean your hands is just to rub the dough off.

Shape the dough into a ball or thick sausage shape and place it on a baking tray dusted with flour, or into a greased loaf tin. Cover it with a cloth and leave it somewhere warm to rise. How long depends on the warmth, but allow about an hour.

When the dough has doubled in size, slash a few expansion cuts through the surface of the dough with a very sharp knife. Then bake it in a very hot oven, 230°C (450°F) for 30-40 minutes. When done it will have shrunk loose from the tin, sound hollow when tapped, and have a golden colour. Turn the bread out onto a cooling rack, and cover it with a cloth until cool.

Quick Breakfast Rolls Recipe

Ingredients

450g White Flour (from Heckington Windmill if possible!)
300 ml milk
2 tsp baking powder
100g butter
40g caster sugar

Method

Heat the oven to 220C, gas mark 7. Sieve flour and baking powder into bowl.

Rub in butter until it resembles fine breadcrumbs. Stir in sugar and work in milk to make soft dough. Divide mixture into 18 pieces, shape into rolls.

Place on greased baking sheet, allowing room for expansion.

Bake for 15 minutes. Cool on wire rack.

Eat freshly baked with marmalade, jam or honey!

These do not have yeast to make them rise, so are similar to a scone or soda bread in texture.

Salt Dough Recipe

Ingredients

200g plain flour
100g salt
150ml luke warm water



Method

Put the flour, salt and any optional ingredients, such as food colouring or other colouring agents, for example coffee or turmeric, into a mixing bowl and gradually add the water, mixing to a soft dough. (NB: The dough is **not** edible.)

Knead the wet dough on a work surface for 5-10 minutes to help create a smooth texture. Let the dough stand for about 15-20 minutes.

Divide your dough up if needed and start creating your sculptures! Playing with the dough is recommended – just seeing what happens (the equivalent of doodling) and rolling it back up and starting again!

When you have completed your sculpture, wash your hands to remove the salt.

Dry your sculpture (see ‘Drying your Creation’ below).

Paint and decorate—try using paints, felt-tip pens, buttons, beads and glitter!

Drying your Creation

You can air or oven dry your creations.

For oven drying, set the temperature as follows: 100C (200F/Gas Mark 1/4). (Max temperature)

The drying time will vary depending on the thickness of your work; it could be around 3-4 hours.

Air drying in a warmish place will take around 2-4 days. Turn the work over so both surfaces can dry.

Hints & Tips

The salt dough recipe can be scaled up to make larger amounts of dough.

No dough consistency ever comes out the same, even though the measurements are the same every time! So you may need to add a touch more flour if it feels too sticky, or a drop more water if it feels too dry.

Any unused dough can be stored in the fridge, in an airtight container or cling film, for a week or two.

The thicker you make your sculpture, the longer it will take to dry out. For flat shapes, try and keep it to less than 1cm thick.

If your creation is fairly delicate, consider making your sculpture on the surface it will be dried on to save problems when transferring it, e.g. on a baking tray if oven drying.