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Using food as a cross curricular activity and especially in relation to Design and Technology

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Abstract
The aim was to produce a study projects with 10 year olds from our feeder primary school which would use a food product and be cross curricular.

The product chosen was a potato and the presentation and slides give a report about the activities undertaken, i.e. planting and harvesting; the origin and types of potato; the commercial production of potato products; home-made versus commercial products; the creation of a potato dish for fast food outlet.

By mapping the project against AT’s it can be shown that food based activities lend themselves easily to work in various areas of the National Curriculum.

The project aim was to look at the potential for a simple food product to becoming the focus across curricular project, and particularly for use in design and Technology.

The food chosen was a potato and the pupils were a group of 9 - 10 year olds from a feeder primary school on the same campus. Many ideas for work and research came from the pupils and evolved as the project proceeded.

We started in the Spring by buying a bag of seed potatoes from the garden centre. These were weighed, felt, prodded, looked at and generally given a thorough examination. Finally we counted the eyes which would produce the shoots of the potato plant.

The potatoes were then taken to the potting shed and placed in an old tomato box where they were to be left for several weeks to sprout - a process called 'chitting' we found out.

The school gardener had assigned a piece of the vegetable plot for our use and each pupil was shown how to prepare the ground for planting.

There were several weeks to wait for the `chitting` process to be completed and for the next part of the growing process to continue. The weather was bad and we continued our potato studies inside with a weekly visit to the greenhouse to check on the progress of the potatoes.

Our first line of investigation led us to the Geography and History Departments to find out where potatoes originated and how they had first been introduced to Britain. We looked at the map of the world, found Britain and Peru and tried to find ways of putting the distance between the two into some sort of
We looked at the varieties of potatoes available for us to use. Seed catalogues gave us the varieties we could grow, the Potato Marketing Board leaflets gave information about the types grown commercially and their suitability for various cooking processes, and a visit to the local shopping areas provided information about the varieties on sale to the public.

A visit to the Supermarket also gave information about the wider use of potatoes. Each pupil had to look at the labels of packets and cans to find if potatoes were used. None of us imagined the wide range of potato products available.

Everest frozen foods allowed us to visit their factory to see how chips were made and then back in school in the Food Technology area we made our own chips and crisps.

Pupils used various pieces of equipment to make their chips and crisps and found which one was the easiest and most successful to use. We discussed the safety aspects of preparing and cooking the products and finally the presentation and costing. By looking at packaging materials already in general use for serving chips and crisps we discussed their good and bad points and then designed our own.

We also investigated a mini-enterprise which provided jacket potatoes for school lunch. Various fillings were developed and user trials carried out on other pupils.

At the appropriate times we visited the garden to plant the potatoes, earth them up, monitor their growth and finally harvest them. We counted and weighed the yield and decided that this would be a good time to present our project to the rest of the class.

Each pupil chose one aspect of the project to prepare a short talk or demonstration to be given when the whole class visited the Food Technology area. We made chips for everybody from the largest potatoes and shared the rest between the whole class so that each pupil had sufficient potatoes for the members of its family.

How does this project fit into cross curricular themes and in particular Design and Technology

**Personal skills**

- research - reading, oral, written
- co-operation - one to one, as a team
- perseverance and reliability
- decision making
- discussion and ideas
Subject areas

Maths - counting, weighing, estimating costing

English - recording, letters, reading, gathering information, spoken presentation

Science - conditions needed for growing potatoes, the potato clock.

Home Economics - preparation of food, presentation, safety, nutrition

Art and Design - packets and advertising

Economic and industrial awareness

Products on sale

Cost - home made versus shop bought

Advertising and marketing

Careers - ideas for work, visiting factory and shop

Health and safety

Working conditions in places of employment

Safe methods of working when completing tasks

Healthy food preparation

Attention to diet and how this relates to health

Environmental

Using natural resources

Organic versus chemical production of vegetables

Packaging materials and their disposal

National Curriculum Design and Technology
e.g. Level 3 - an average level for this age range.

**AT1**
3a taking a commonly used and eaten food commodity and exploring all aspects of its growth and production

3b asking questions of gardener, subject specialist, factory manager, supermarket personnel to clarify what might be possible

**AT2**
3a design proposal for jacket potato filling

3b ideas for display and presentation of potato

3c surveying class to find out most popular potato filling and suitable price range

3d design for packaging

3e record in their potato project book

**AT3**
3a working within time and equipments available

3b deciding between use of microwave and conventional cooker when dealing with large numbers of potatoes

3c by using a range of equipment the most appropriate tool can be chosen for chips or crisps

3d making on the spot decisions during the cooking process

**AT4**
3a meeting with specialists, asking for help and presenting it to the whole class

3b knowing which piece of equipment was the best to use because they had chosen it after they had tried others

By being practically involved the pupils had the confidence to answer questions from their classmates more readily as they were relating their own experiences rather than information they had been given.

For me the project reinforced the value of food study as part of Design and Technology and how easily activities with food fit the attainment targets at all levels. It will also aid successful transition between primary and secondary school as early links and relationships are formed.