

The journey of a banana

A numeracy activity addressing key elements of the National Numeracy Strategy (NNS) while exploring the origin and various stages in production and transportation of a food common to all children

Relevant elements of the Year 4 NNS Teaching Programme (p18)

Suggested focus for activity in italics:

Solving problems:

- Choose and use appropriate number operations and appropriate ways of calculating to solve problems: decide whether calculations can be done mentally or with pencil and paper; explain and record how the problem was solved
- *Use all four operations to solve word problems involving numbers in 'real life'; money and measures, using one or more steps, including converting pounds to pence*

Calculations

- Consolidate knowing by heart addition and subtraction facts for all numbers to 20
- Derive quickly all number pairs that total 100
- Extend understanding of the operations of \times and \div and their relationship to each other
- Use informal pencil and paper methods to support, record or explain multiplications and divisions
- Check results of calculations

Global Citizenship aims of the banana activity

- ✓ To give children the opportunity and practice at presenting a reasoned case
- ✓ To enable children to understand the series of processes and people involved in producing common foods; to be aware of where food comes from and how it reaches them
- ✓ To enable children to be aware of trade between countries and begin to understand the inequality and injustice in the current world trading system
- ✓ To help children understand the link between their own lives and those of others
- ✓ To help children understand the relationship between people and the environment
- ✓ To equip children with the knowledge and understanding to empower them to take positive actions which ensure greater social justice and protect the environment.

Many of these aims are based on the Oxfam Curriculum for Global

Suggested lesson structure

Mental or oral work

The lesson could begin by asking children to derive quickly number pairs which total 100. Different combinations could be written up on the board, and children challenged to find other combinations. Classes or groups highly competent at deriving pairs which total 100 could be challenged to think of 3 or 4 numbers totalling 100.

The main teaching activity

Before the main activity children should be given a brief explanation of the journey of a banana from the Caribbean to a UK shop or market stall and be aware of the groups involved in each stage of the journey. This explanation could be carried out in a preparatory session before the numeracy lesson. Further explanation along with pictures are contained in the Oxfam pack *Go Bananas!* on which this activity is based (published by Oxfam GB 2000). This pack will help children to visualise the roles of each group involved in the banana journey.

Whole class direct teaching could be used to explore sets of 5 numbers which add to 20. Possible combinations could be written up on the board or OHP. The 'who gets what' task should then be explained to the class and carried out in groups. The aim is to encourage critical and reflective thinking on what proportion of 20p spent on a banana should go to each group involved in the growing and production process. This may be a sufficiently challenging task for less able children. More able groups should use the figures they have arrived at for a 20p banana to determine how much of £1 would go to each group if the proportion remained the same. Children will need to use multiplication and division and be aware of the relationship between them, i.e. 20p goes into £1 5 times and any figure out of 20 will need to be multiplied by 5 to calculate the proportion of £1. They will need to recognise that checking the accuracy of their answer will involve checking that numbers add up to 20/100.

Plenary session

A few children should share their calculation strategies and state with justification what proportion of 20p/£1 they have allocated to each group. Different combinations of 5 numbers which add to 20p/£1 can be written on the board or OHP.

Towards the end of the plenary children should be informed of the actual situation and given the opportunity to state their opinions on this. Do they think this is fair? Why/why not?

Fair trade: ensuring a fairer deal for banana growers

This activity provides an ideal opportunity to introduce or promote *Fair trade* bananas, now available at most supermarkets. These ensure growers get decent wages, housing and health and safety standards. There is no forced or child labour and environmentally sustainable production practices are promoted. Further details of *Fair trade* can be found in the the *Fair trade* leaflets in this series or from sources detailed at the back of this leaflet.



Who gets what? You decide!

- ◆ Decide how much each group should get from a banana costing 20p.
- ◆ Who do you think deserves the most from the sale of the banana? Why do you think so?
- ◆ Who do you think deserves the least? Why do you think so?
- ◆ If the same *proportion* of money went to each group, how much would each group get from £1 spent on bananas? Complete the following table:

Who gets what? You decide!

20p banana £1 of bananas

Grower	____p	____p
Banana Development Company	____p	____p
Shipping, and packaging Company	____p	____p
Wholesaler	____p	____p
Retailer	____p	____p

- ◆ How did you work out your answers?
- ◆ How can you check to make sure that you have got your calculations right?

Who gets what? The actual situation

From 20p (£1) spent on a banana each group gets the following:

Grower:	1p	(5p)
Banana Development Company	1p	(5p)
Shipping, importing and packing Company	7p	(35p)
Wholesaler	4p	(20p)
Retailer	7p	(35p)

All figures are approximate and do not include taxes, import licences or insurance

Groups involved in the banana's journey

Growers

After planting the banana plants it will take 18 months before the bunches of bananas are ready to cut down. During this time farmers have to protect their bananas from damage by the weather and by pests. To do this, bananas have to be covered in plastic sheets. Some farmers will use fertilizers to help the crop grow and pesticides to help protect the crop from bugs and pests*. Both will need to be bought by the farmer. When the bananas have grown, but still green, the farmer cuts them from the plants with a machete and packs them in boxes. The plants then die and the farmer must grow new ones.

Winward Island Banana Development Company

This company works to support the growers. They work to get as good a price as possible for the farmers who sell their bananas. They also supply the farmers with fertilizers, pesticides, plastic sheets and boxes and give farmers advice on growing bananas.

Shipping, importing and packaging Company

This company transports the boxes of bananas from the Caribbean to the UK in refrigerator ships. The journey takes about six days. Once the bananas arrive in the UK they have to be carried by lorry to the factory where they are carefully ripened for about a week. They have to be kept in special rooms at the right temperature to help them ripen. They are sorted into different sizes and packed ready for sending out to the wholesalers or retailers.

Wholesaler

Receives boxes of ripened bananas from the packaging company and sells them on to different retailers who then sell them in their shops.

Retailer

Sells the ripe bananas in a shop or on a market stall. They need to be sold fast before they over-ripen and turn brown.

Vocabulary which will need explanation:

pesticides: chemicals used to kill insects which may harm the crop

fertilizers: chemicals added to soil to help plant growth

*growers using an organic production method will not use artificial fertilizers or pesticides. This activity provides an opportunity to discuss the positive benefits of organic farming to the soil and the environment. Some supermarkets now stock organic bananas.

We Are What We Eat: but who controls our choice? UNICEF 1992

Foods, Farms and Futures:

The Organic Option

The Soil Association 1995

Global Express No.14:

Monster Tomatoes or Bumper Harvests

Manchester DEP 1999

Feedback on these activity ideas would be much appreciated. Comments can be sent to HEC or your local DEC or made via the Global Footprints website.

Further ideas, contacts and information

Become a banana bread baker!

The following is a simple recipe which children could use as a practical way of applying real life weights and measures. It also provides an opportunity to explore reasons for choosing *Fair trade*, organic, and free range produce. The activity lends itself to small groups.

What you need

100 grams organic butter or margarine
200 grams *Fair trade* brown sugar (available from Oxfam shops)
3 *Fair trade* or organic bananas
2 free range or organic eggs
1 pinch salt
1 teaspoonful of bicarbonate of soda or baking powder
50 grams chopped walnuts (optional)
200 grams plain white or brown organic flour

What you do

Beat the eggs in a bowl. Cream the bananas in another bowl. Cream butter and sugar in a third bowl. Add all these ingredients together in one bowl and stir. Add flour, (nuts), bicarbonate or baking powder and salt and mix well. Place mixture in a greased bread tin. Bake for one hour in a moderate oven (350F) and then...enjoy!

(Based on Oxfam pack: *Go bananas!* Oxfam GB 2000)

Further Activity and Action Ideas

- ☆ Design an appropriate box for the banana bread, thinking of a suitable name, exciting design, and providing the customer with ingredient list and information about the choice of ingredients, i.e. why organic, *Fair trade* and free range products have been chosen.
- ☆ Use the banana bread activity to reinforce and further explore food issues raised in this leaflet. Could the cake have been made more cheaply? Compare prices of organic and *Fair trade* products with those of non-organic or non *Fair trade* products. Why are organic, *Fair trade* and free range produce generally more expensive?
- ☆ Staffroom action. A very practical way in which a school can demonstrate its commitment to food producers in developing countries is by purchasing *Fair trade* tea and coffee for the staffroom.
- ☆ The setting up of 'fruit tuck shops' enables schools to examine the different options available and to explore, perhaps through school councils, the dilemma between buying low price/hidden costs fruit and higher price *Fair trade* and organic fruit which offers a fairer deal to producers and the environment.

Your local DEC:

Further information about food justice

The Fairtrade Foundation Suite 205, 16 Baldwin's Gardens, London EC1N 7RJ Tel: 020 7405 5942

e-mail: mail@fairtrade.org.uk Web site: www.fairtrade.org.uk
Contact for details about *Fair trade*.

British Association of Fair Trade Shops (BAFTS) c/o Gateway World Shop, Market Place, Durham DH1 3NJ Have details of *Fair trade* shops and suppliers in your area.

Friends of the Earth 26-28 Underwood Street, London N1 7JQ
Tel: 020 7490 1555 www.foe.co.uk Produce *Biteback!* a young person's action guide to campaigning for real food snacks which are better for people and the environment.

The Soil Association 86 Colston Street, Bristol BS1 5BB
Tel: 0117 929 0661 Have been campaigning for organic farming for over 50 years and provide information on how to buy organic food (both meat and vegetables).

Compassion in World Farming Charles House, 5a Charles street, Petersfield, Hants GU32 3EH Tel: 01730 268070 Campaign for the welfare of farm animals and against factory farming. Publish a wide range of leaflets, books and videos. Will have information on 'free range' animal products.

Oxfam 274 Banbury Road, Oxford OX2 7DZ Tel: 01865 313600
Campaign for justice for the world's poorest food producers and for *Fair trade*. A wide range of *Fair trade* products is available through their shops. Extensive range of global citizenship education packs available. Also have a children's website containing information and activities: www.oxfam.org.uk/coolplanet

Food: Feast Your Mind! By Emily Moore, published by Holder Books 1999. One of the 'What's the Big Idea?' series. Lively and entertaining!

Development Education Centres (DECs)

This resource was produced by two DECs: Humanities Education Centre, Tower Hamlets and RISC in Reading. Your local DEC will be able to provide a range of exciting resource ideas for the teaching of Global Citizenship.

To find your nearest DEC contact the Development Education Association, 29-31 Cowper Street, London, EC2A 4AP

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