The work of Oxfam

UNIT 5

In looking at the work that Oxfam does to help people in need, some mathematics of number and some simple statistical work is covered in this unit. At the same time, the unit is intended to raise the students' awareness of the needs of the world and to promote a compassionate attitude towards people in need.

Using this unit

Time: 2 hours
Level: Intermediate/Foundation

This unit looks at how Oxfam uses its money

- To help people in the Middle East; and, more generally,
- To provide clean water

The students are encouraged to place themselves in the position of people making decisions on how to spend money to meet such needs. Also, they are asked to consider the ways they use their own money in light of the decisions they have made.

It is assumed that students will be experienced in extracting information from tables, and that they will be familiar with bar charts, pie charts and percentages. The unit provides different contexts for practising these skills and developing their understanding of the concepts involved.

Students may find some of the terminology found in the table of facts and figures from the Middle East new to them and so some preliminary explanation may be necessary.

Students will require: ruler, protractor/angle measurer, calculator.

Copies of the leaflets *Oxfam in the Middle East* and *Oxfam and Water* may be helpful but are not essential. (They can be obtained from Oxfam at the address listed overleaf.)

Mathematical content

AT2

- **Finding a percentage of a quantity**
- **Expressing one number as a percentage of another**
- **Trial and Improvement**

AT4

- **Bar Charts**
- **Pie Charts**
- **Scatter Diagrams and Correlation**
- **Interpreting Statistical Data**

Spiritual and moral development

The aim of the unit is to help students to develop more compassionate attitudes towards people in need, and to prompt them them to consider giving to charities as part of their lives.

Background

In 1942 "The Oxford Committee for Famine Relief" was established with the aim of providing help to Greece, a country which had suffered greatly during the Second World War. In the following year it registered as a charity. The Committee expanded its work to other areas of Europe in post-war years and in the 1950's to the Middle East and Africa. By the 1960's the organisation was known as Oxfam, after its abbreviated postal address. Their relief work has continued to expand in Africa and to South America.

In addition to providing emergency famine relief, Oxfam have worked with the poor, providing education and the abilities and facilities to solve their own problems. The aim of this work is to avoid people becoming dependent on aid.

Oxfam receive their money from a variety of sources, including gifts and donations, charity shops and recycling. Oxfam Trading markets handicrafts in its shops and by mail order, and provides a fair price and training to the small producer. Its turnover during the second half of the 1970's was £1 million.

Additional sources

1. *A Brief History of Oxfam* gives a fuller account of the development of this charity and is available from Oxfam Supporter Services, 274 Banbury Road, Oxford, OX2 7DZ.

2. The leaflets *Oxfam in the Middle East* and *Oxfam and Water* are also available from this address.

Notes on the activities

Water

This part could start with a discussion on how much we depend on the availability of plentiful clean water. The following questions may be useful to initiate discussion, or provide some written work to be read out and discussed.

- How have you used water so far today? What have used it for? What other uses can water have? (Make a list of uses.)

- Imagine having only a limited supply of water. What uses could you easily cut out? What do you consider as essential?

Task 1

1. This is best done on a calculator. Students need to know the difference between a decimal and a remainder, and to be able to interpret their calculator display properly.

2. Expressing one number as a percentage of another.

3. Trial and improvement methods to find the optimum use of the money. (As the training cost is £100, the aim is to find a combination of tool kits and testing kits which add up to a multiple of £100.)

4. Answers here may be influenced by the optimum use of the money found in 3, and the usefulness of the items to be bought. Teachers may need to explain what the three items are and why they are important. Students should consider whether it is worthwhile to buy a water testing kit or a tool kit

without training someone to use them, and they should allow these issues to influence their answers.

A general discussion on the merits of giving, and on how to spend the money received, may be a useful way of bringing together the work at the end.

Task 1 answers:

1a) 144 tool kits, £64 remaining
1b) 100 months' training exactly
1c) 11 water testing kits, £628 remaining
2a) 0.64%
2b) 0%
2c) 6.28%
3. 20 tool kits, 1 month's training, and 10 water testing kits is the only combination which uses £10,000 exactly.
4. A good answer refers to all 3 before making a choice.

The Middle East

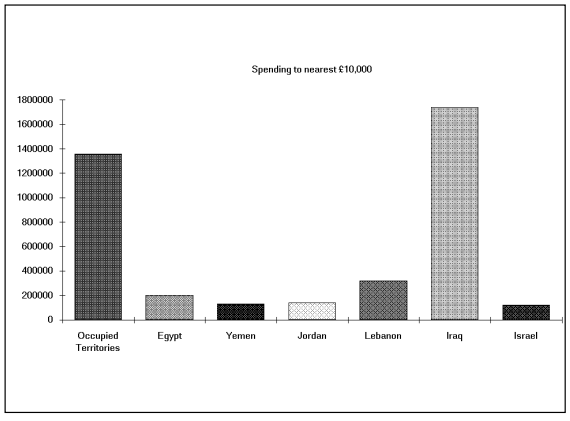
Task 2

1. Drawing and interpreting a bar chart.
2. Calculation of percentages of a quantity and drawing a pie chart.
   Discuss why this is a good choice of diagram for displaying this information.
   The final part can be used for written answers or general discussion. With groups which find discussion difficult, students could be asked to write their answer firsts, and then selected students could read out what they have written, with others being asked to comment, giving their reasons, on whether they agree or disagree.
3. Make sure the students are clear on the meaning of GNP.
4. Drawing a scatter diagram, line of best fit, and correlation.
   Part d) may be suitable as a homework task, giving the opportunity for further research, or as group work in class. Each group needs to select someone to report back to the rest of the class. This person may also be the group leader or note-taker, though these responsibilities may be shared out.

Task 2 answers:

1a)

Country	Occupied Territories	Egypt	Yemen	Jordan	Lebanon	Iraq	Israel
Spending to nearest £10,000	1,360,000	200,000	130,000	140,000	320,000	1,740,000	120,000

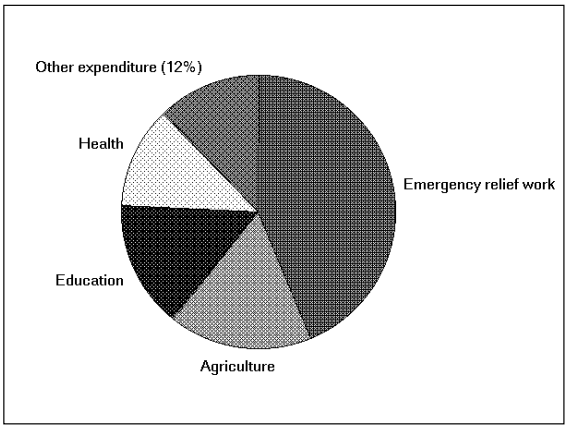


1b) Iraq
1c) Israel

2a)

Area of Expenditure	Expenditure in £	Angle in degrees
Emergency relief work	1,848,000	158.4
Agriculture	714,000	61.2
Education	630,000	54
Health	504,000	43.2
Other expenditure (12%)	504,000	43.2

2b)



2c) Answers may include:

- So that people have the knowledge needed to meet their own needs
- New farming and industrial techniques
- Giving individuals the chance to better themselves and escape poverty

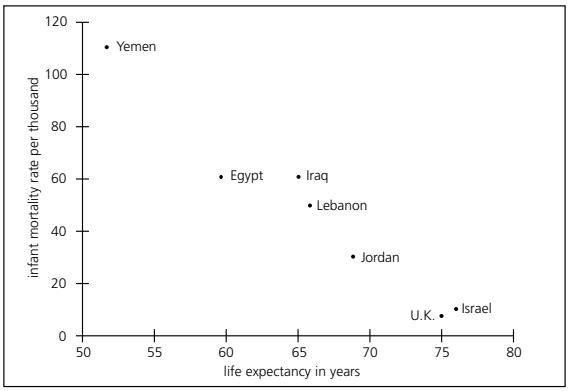
3a) Dollars, the "universal currency".

3b) To make fair comparisons between countries.

3c) Israel.

3d) So that we can compare these countries with our own.

4a)



4c) Strong negative correlation.

Explanations could include:

- Many infant deaths will reduce average (mean) life expectancy
- Poor medical facilities/living conditions will affect both variables

4d) Good answers will refer to the countries chosen to receive the most money, the type of aid, and general knowledge or recent news items about the region.

Another charity (extension work)

Obtain information from another charity about their spending in the Middle East and see how it compares with that of Oxfam. In particular, look to see whether there is a difference in emphasis in their spending, e.g., on relief rather than education.

Water use (extension work)

By estimation and calculation, obtain approximate figures for the amount of water the average class member uses in a week. Calculate the percentages of this that students consider to be essential, desirable, non-essential and wasted.

Advertisement leaflet (extension work)

Produce a leaflet which could be used to encourage people to give to Oxfam. Include statistical graphs to show how the money is used.

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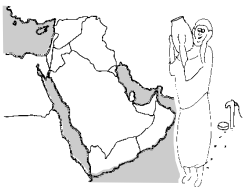


UNIT 5

At the end of this unit you will have worked on:
- Percentages
- Trial and Improvement
- Bar Charts
- Pie Charts
- Scatter Diagrams and Correlation
- Interpretation of Statistical Data

You will have considered:
- how Oxfam use some of the money they are given
- some of the decisions Oxfam have to make
- ways you can give to help others

You will need:
A ruler, protractor or angle measurer, and a calculator.

Oxfam was established in 1942 with the aim of providing help to Greece, a country which had suffered greatly during the Second World War. It expanded its work to the Middle East and Africa in the 1950's.
Oxfam provide education and resources as well as food for the poor. They aim to avoid people becoming dependent upon aid.
This unit will look at two aspects of the work of Oxfam:

- Water
- The Middle East

Water

In this country we take water for granted. We have a plentiful supply through to our taps whenever we need it. In other countries people are not so fortunate.

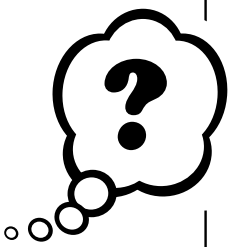
£69 buys a pump tool kit for a well.

£100 covers a month's training costs for water technicians.

£852 pays for a water testing kit.

1

1. If you have £10,000 to spend, calculate:
   a) How many pump tool kits you could buy, and how much money remains.
   b) How many people could receive a month's training, and how much money remains.
   c) How many water testing kits you could buy, and how much money remains.
2. For each part of question 1, calculate the remainder as a percentage of the original amount.
3. If you must buy at least one of each item, what combination leaves the minimum amount of money unused?
4. On what combination of these three items would you spend the £10,000? Explain your choice.



The Middle East

Here are some facts and figures from a leaflet *Oxfam in the Middle East:*

	Population in millions 1991	Life expectancy at birth, 1991	Gross National Product (US$) per person, 1991	Infant Mortality Rate per thousand, 1991	Oxfam spending (£) financial year 1992-93
Occupied Territories	1.9	not available	850 - 1,100	20-60	1,358,668
Egypt	53.6	61	610	59	200,614
Yemen	12.5	52	520	109	125,923
Jordan	3.7	69	1,050	29	138,466
Lebanon	3.7	66	567	50	321,916
Iraq	18.6	65	3,508	60	1,737,043
Israel	4.9	76	11,950	9	115,467
UK	57.6	75	16,550	7	not applicable

1. a) Round off the spending for each country to the nearest £10,000. Display the spending on a bar chart. Put the name of the country on the horizontal axis, and the spending on the vertical axis. Use 1cm for £100,000.
   b) Which country receives the most money?
   c) Which country receives the least money?

2. Out of a total of £4.2 million in 1993-94, 44% was spent in emergency relief work, almost all of it in Iraq (this work was funded by the UN); 17% in agriculture, mainly in the Occupied Territory; 15% in education; 12% in health; with the remainder spent on water and sanitation, shelter, income generation, legal aid, institutional development, helping communities organise, and information and lobbying work.
   a) Calculate how much money was spent on each of the 5 aspects of the work.
   b) Display this on a pie chart.
   c) Why do you think Oxfam spend so much money on Education?

3. The Gross National Product (GNP) is the total income the country receives in a year. It is a good way of telling how rich a country is.
   a) In what currency is the GNP given? Why is this currency used?
   b) Why is it given "per person".
   c) Which is the richest Middle Eastern country in the list?
   d) Why are the figures for the UK included in this table?

4. a) Draw a graph of life expectancy against infant mortality. On the vertical axis put infant mortality, using 1cm for 10 deaths. On the horizontal axis put the life expectancy starting from 50, using 2cm for 5 years.
   b) Draw a line of best fit through the points.
   c) Describe the correlation between infant mortality and life expectancy.
   Explain your answer.
   d) Imagine you were responsible for Oxfam's expenditure in the Middle East.
   Decide how you would use the money, based upon your answers to the questions.
   e) How do you use the money you have?