

THE CHARIS PROJECT

The aim of the Charis Project is to promote the spiritual and moral development of pupils through the teaching of a range of subjects across the curriculum.

Beginning with resources for 14-16 year olds, the initial phase of the project produced curriculum resources for English, Mathematics and Modern Languages. In the second phase, further resources have been produced for these subject-areas together with a Science resource. Future development of the project will include resources for other subject-areas and age-groups.

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CONTENTS

	Foreword	iv
	Introduction: The Charis Project	v
	Introduction: Charis Mathematics	vii
Unit 10	The literal facts	1
Unit 11	The designer universe?	11
Unit 12	Believe it or not?	23
Unit 13	Bucking the trend	33
Unit 14	But can you afford it?	45
Unit 15	Mr Kepler's shapes	57
Unit 16	The inside story	69
Unit 17	What's the time?	79
Unit 18	Could it be you?	91
Unit 19	Do you know where you are going?	105

FOREWORD TO THE FIRST CHARIS PUBLICATIONS

BY PROFESSOR SIR STEWART SUTHERLAND

The OFSTED discussion paper of February 1994, in which I took a particular interest, *Spiritual, Moral, Social and Cultural Development*, pointed out that the development of pupils in these areas, could not be restricted to one or two periods per week and related school assemblies. The focus in question is rather a whole school and whole curriculum activity.

Schools declare and commend values under all four of these headings in a whole variety of ways - as much by what schools do as by what they teach in formal context. Equally however, there is hardly an area of the curriculum which does not, both explicitly as well as implicitly, raise questions of fundamental beliefs and values. It is this latter aspect of spiritual, moral, social and cultural development which is the concern of The Charis Project. The Stapleford Centre is to be commended for its contribution to both the debate and to classroom activity.

The Charis Project materials have the great merit of raising specific questions of beliefs and values which arise out of particular cases of subject content. This is by no means as easy as some would imply, nor would we expect the specific examples given to be uncontentious. The most important contribution of this material is to show that questions of beliefs and values do arise across the curriculum, and that to ignore that is to diminish the impact and the potential of education. There may well be differences of opinion about precisely which questions will most stimulate young minds, and which potential answers most approach adequate answers. The challenge is to enter the debate and to do so in a way that is most likely to promote spiritual, moral, social and cultural development of pupils of diverse ages and diverse backgrounds.

Stewart Sutherland

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and formerly Her Majesty's Chief Inspector for Schools
May 1996

INTRODUCTION: THE CHARIS PROJECT

Teaching in the schools of the nineties

Teaching in our schools today is rather different from in previous decades. Teachers, pupils, communities and society have changed and developed, and technology has made a huge impact.

We talk of accountability and appraisal, SAT's scores and measurable outcomes, league tables and competition between schools. Somewhere, the pupil as a whole person is in danger of getting lost beneath the demands of all these outside constraints.

At the same time, the wider concerns are still there - both for legislators and for teachers. The 1988 Education Reform Act in England and Wales required schools to "promote the spiritual, moral, cultural, mental and physical development of pupils". This was further formalised by the Education (Schools) Act 1992, which saw the birth of OFSTED (the Office for Standards in Education), and of regular schools' inspections. Amongst other things, Registered Inspectors have to report on "the spiritual, moral, social and cultural development of pupils". These are not new considerations, they have always been there, but teachers are now giving more thought to this more fundamental dimension of education - the personal development of their pupils.

The development of the whole person

This renewed emphasis has spawned a mass of literature, seminars, consultations and conferences. A whole new language began to appear with much talk of the "four adjectives" or of "SMSC" (spiritual, moral, social and cultural). If that suggests that the person consists of four separate and unrelated 'bits', more recent talk of 'personal development' has re-affirmed the wholeness of the person.

The development of the whole person is clearly a whole school issue. It cannot be restricted to RE and assemblies and so become the responsibility only of those involved in these aspects of school life, of central importance though they may be. Also important to personal development, taking place as it does through personal relationships, especially those between teacher and pupil, is the ethos of the school. This pervades all aspects of the life of the school - in the classroom, in the playground, in the assembly-hall or at the bus queue. The QCA (Qualifications and Curriculum Authority) Forum on Values in Education and the Community (1997) has emphasised the importance of considering values in all subjects of the curriculum. The QCA's school pilot guidance materials will contribute to the revision of the National Curriculum for the year 2000. It is envisaged that consideration of values should then be given much greater prominence in classroom teaching.

Promoting personal development throughout the curriculum

The OFSTED discussion paper *Spiritual, Moral, Social and Cultural Development* (February 1994) claims that the promotion of spiritual and moral development in all schools should be a whole-curriculum matter. It goes on to say that "to move to such a place where subjects see themselves in this way might seem to require a sea-change in attitudes and approaches, but certainly the potential is there".

The school, and here this means all teachers in every subject across the curriculum, is encouraged to create opportunities which:

- provide pupils with knowledge and insight into values and beliefs;
- enable them to reflect on and develop their own beliefs and values, aspects of life and experiences so that they develop spiritual awareness and self knowledge;
- encourage pupils to consider life's fundamental questions, and relate religious teaching to those questions;
- encourage pupils to explore meaning and purpose, values and beliefs;
- teach the principles which help pupils to make moral decisions and to distinguish right from wrong;
- foster values such as honesty, fairness, respect for truth, justice and property;
- encourage pupils to express moral values across issues affecting their school community;
- encourage pupils to respect other people and relate to them positively;
- encourage pupils to take responsibility, exercise initiative, participate in community and develop an understanding of citizenship;

- create opportunities to work cooperatively, and to participate cooperatively in the school community;
- teach pupils to appreciate their own cultural traditions, and the diversity and richness of others, to gain understanding of societies, families, school and communities; and
- provide opportunities to enrich pupils' cultural learning experiences.

For some teachers, the responsibility that they are now given for the personal development of their pupils could be an added burden. For others it is a welcome return to educating pupils in a more holistic manner, re-focussed away from the exam success mentality. For all teachers in every part of the curriculum, it is an opportunity to enhance their teaching styles and resources.

The Charis Project

The Charis Project was set up to produce classroom resources for teachers who are beginning to effect the sea-change in attitudes and approaches to the curriculum called for by OFSTED. The first three subject-areas tackled are English, Mathematics and Modern Foreign Languages (French and German) with Science being added subsequently. The resources have been designed with the needs of pupils aged 14 - 16 years in mind.

The teachers in the writing teams have sought to produce materials which will help their colleagues to create the opportunities set out above. In particular, they are concerned to:

- enable teachers to respond to the challenge of educating the whole person;
- help teachers to focus on the spiritual and moral dimensions inherent in their subject;
- encourage pupils towards a clearer understanding of Christian perspectives on the fundamental questions that arise in all areas of knowledge; and
- contribute to the breadth, balance and harmony of pupils' knowledge and understanding.

It is recognised that there is much that is held in common among people of various faith perspectives and of no particular religious outlook. Values are often very widely shared and there can be quite general agreement on what is true, beautiful or good. The Charis resources seek to promote these common values. At the same time, the reasons why they are held and the basic beliefs about reality in which they are grounded differ from one perspective to another. These fundamental differences lead to different total outlooks and to detailed differences on what qualities, attitudes and actions are truly moral and/or spiritual. The Charis Project is based on the belief that these differences and the distinctives of the Christian perspective are significant and that understanding this is an important element in a pupil's education and personal development and a positive preparation for life in our contemporary plural society.

We are often asked why Charis was chosen as the name of the project. We tried without success to invent a catchy acronym. The modern foreign languages teachers said we could not have an English word in the title of a French or German book so we went to Greek and Hebrew. Somebody said "charis" and we all realised how well its idea of grace and giving fitted in with one of our concerns - to provide an antidote to the consumerist "me-first" assumptions of some curriculum resources. So it became the Charis Project!

The Charis resources are offered as a starting point with ideas to help teachers to promote the personal development of their pupils while still teaching to their examination syllabus. It is also our intention that, in using these materials, teachers will be encouraged to develop their own resources and their own methodologies for the promotion of spiritual and moral development through their subject-area. In preparing them, we have experienced something of a sea-change in our own attitudes and approaches. We hope that they may stimulate our colleagues to produce more and better resources.

John Shortt and Alison Farnell

Project Directors

INTRODUCTION: CHARIS MATHEMATICS

Why should mathematics teachers be concerned with spiritual and moral development?

Addressing spiritual and moral development across the curriculum has come much more to the fore recently as a result of the renewed emphasis placed upon personal development within both the National Curriculum and the OFSTED Framework for Inspection.

These facets of development are, of course, not new as goals of education. Indeed, many mathematics teachers would say that they are fundamentally concerned with the education of the “whole child”. However, a shared understanding of what this means has proved to be elusive and, consequently, it has not always been seriously worked through by mathematics teachers. However, having developed these resources, the *Charis Mathematics* writers have become convinced that moral and spiritual dimensions should be and can be present in the teaching of their subject.

How can learning mathematics provide opportunities for such development?

The nature of the subject itself suggests a number of approaches for combining spiritual and moral development with the learning of mathematics.

The first of these approaches comes through recognising that mathematics has been developed and is applied in a wide range of human situations. Consequently, it is possible to choose contexts which allow students to develop their mathematics while, at the same time, reflecting upon and discussing the spiritual and moral dimensions arising from the human issues being examined. For example, Unit 9 *Could it be you?* uses the National Lottery as a context to develop probability and statistics skills. At the same time, it provides an opportunity to reflect upon what we really value and to discuss the impact, if any, of luck in our lives.

A second approach comes through recognising how people find that by exploring ideas within mathematics, they can also gain insight into broader areas. Mathematics could be seen to act as a metaphor for other areas of life. Unit 10 *Do you know where you are going?* is an example of this approach. The unit examines various aspects of the mathematics of navigation and also links this with the way we seek guidance and direction in our lives.

The third approach used in the resources comes through recognising that mathematics is used extensively to help us model and understand the universe. It is hoped that, through examining examples of this, students will develop a sense of wonder in response to the real world around them. For example, Unit 2 *The Designer Universe?* offers opportunity for students to improve skills with standard form, while reflecting on the origin and amazing nature of our universe.

What does the pack contain?

The pack consists of a set of 10 free-standing units mainly aimed at Key Stage 4 students. Some units are more appropriate for students of particular tiers, but there are some units that can be used effectively with all GCSE students. Also, during trialling, some of the units were used successfully with younger students.

Each unit contains Teacher’s Notes and photocopiable Student’s Sheets. The Teacher’s Notes contain information on:

- the mathematical content within the unit;
- the aspects of spiritual and moral development addressed by the unit;
- background ideas and additional sources of resources;
- how the unit is structured and any special resources required; and
- how to conduct the discussion and reflection activities within the unit.

How can the units fit in with our existing scheme of work?

Teachers often express a desire to broaden the mathematical experience of their students, but feel under pressure to press on with the syllabus. The Teacher’s Notes for each unit give an indication of how long the unit can take and also outline the mathematical content. Some units could either be used as a motivation for learning

an area of mathematics or alternatively used to practice and apply knowledge, skills and understanding already developed.

The table shows the key mathematical content addressed by each unit and for which tiers of GCSE (Foundation, Intermediate or Higher) the unit would be suitable. The information below together with the further content details in each unit is designed to help you to identify where a unit can be usefully incorporated into your existing scheme of work.

Unit	Title	GCSE tier	Key mathematical content
10	<i>The literal facts</i>	F/I	Using fractions and percentages; working with large numbers; place value; interpreting tables; interpreting and constructing statistical diagrams.
11	<i>The designer universe?</i>	I/H	Standard form (positive powers of 10); rounding numbers to significant figures; scale drawing.
12	<i>Believe it or not?</i>	F/I/H	Data collection methods; carrying out a statistics project; using percentages.
13	<i>Bucking the trend</i>	I/H	Correlation; lines of best fit.
14	<i>But can you afford it?</i>	F/I	Understanding and calculating with percentages; sensible use of calculator.
15	<i>Mr Kepler's shapes</i>	F/I/H	Symmetry; nets and solids; construction of loci.
16	<i>The inside story</i>	I/H	Standard form (positive/negative powers of 10); substitution in formulae.
17	<i>What's the time?</i>	F/I/H	Complex calculations, negative numbers; large numbers; using formulae; constructing graphs; calculating means.
18	<i>Could it be you?</i>	F/I/H	Calculating probability; interpreting tables; carrying out and interpreting surveys; combinations and factorials; number patterns.
19	<i>Do you know where you are going?</i>	F/I	Compass points; bearings; scale drawing

What preparation will I need to do?

Having decided when you want to use the unit with your students, we recommend that you study the Teacher's Notes closely. After this you will need to:

- consider whether and how you will teach the students any relevant mathematics prior to work on the unit;
- photocopy the Student's Sheets and organise any other necessary resources;
- plan how to structure the unit over a series of lessons;
- consider the implications for classroom organisation; and
- allow time for any preliminary activities with the students (units 3 and 9).

What if I am not used to teaching mathematics in this way?

Many teachers may be hesitant about organising lessons that stimulate discussion of issues not normally addressed during mathematics lessons. Also, students may initially find the experience strange if they have not done similar work in the past. However, it was found when trialling the materials that if the approach was appropriately introduced then students enjoyed engaging with the spiritual and moral dimension and that stimulating discussion did take place.

Guidance is given in each unit about possible areas for discussion and reflection. It is helpful to ask students to produce written responses prior to a class or group discussion of an issue. It is also important to realise that your role is not to provide answers but to enable students to think through the spiritual and moral issues raised by the unit.

Given the innovative nature of these resources, the project team would appreciate any feedback from teachers on their experience of using the materials. There is a form at the end of the book which you can use if you wish to respond, or you may prefer to send a letter/fax/e-mail. We trust that the resources will support you as you seek to promote both the personal and mathematical development of your students.

John Westwell and John Shortt

Editors of Charis Mathematics