

Introduction

This is the fourth generation of materials produced by the Schools History Project (SHP) for Medicine and Health Through Time since the early 1970s. The new set of materials matches the resources to the precise details of the new GCSE specifications introduced in 2009. We have also included many teaching and learning ideas that will help students learn more effectively and provide more stimulating and enjoyable lessons.

This Teacher's Resource Book (TRB), which supports the Student's Book and IT resources, has been written with a particular audience in mind – trainee and newly qualified teachers who have had little time to get to grips with the overall rationale of the Schools History Project and who lack any detailed knowledge of the history of medicine. If you have been teaching this topic for 20 years please excuse the inclusion of material you are already well aware of – we hope you will still find enough new ideas to make this TRB useful.

Achieving exam success and broader aims

To help each individual student achieve the best possible examination grade, we have provided detailed advice on how to answer the main types of question that are set on the Development Study paper and the Historical Source Investigation. We have also covered the precise details of the specification content.

However, it is worth noting that exam success is not only about focusing on the minutiae of question

types and exam techniques. We know, from long experience, that students perform better in examinations if teachers have done three other things well:

- 1) **Built their course structure around the problems students have year-in, year-out**, so as to, for example, ensure that students develop a good grasp of the outline of medical history at the outset. If this isn't firmly established early on, students often continue to stumble and make basic errors in chronology in their exams.
- 2) **Kept students interested with a variety of activities**, from written tasks to role-plays to 'washing lines' to hot-seating.
- 3) **Built in revision strategies from the beginning of the course**, rather than tacking them onto the end – when motivation and interest may be fading.

Both the Student's Book and this Teacher's Resource Book have been created to help you do these three things effectively. The following pages explain how to do this in more detail. They also set out the broader aims of the Study in Development and this too can have a beneficial impact on exam performance. It is important that students understand why they are doing 'Medicine', because it increases their motivation and sense of achievement if they know how this particular unit fits into their GCSE course and how it links to the world beyond the examination room. This is why this Introduction sets out these broader aims – to guide those who are new to teaching this topic. Examination success and achieving broader aims are not in conflict – they can and should go together.

Key features of OCR ‘Medicine and Health Through Time’

Our aim has been to provide a range of materials (Student’s Book, Teacher’s Resource Book and Dynamic Learning activities) that will help your students succeed in their GCSE examinations. We have done this in the obvious way, by providing detailed guidance on how to tackle the main types of exam questions but also, perhaps more importantly, by using the experience and lessons of teaching as the framework. This has meant identifying the problems that students stumble over each year and then building the resources around our understanding of how students learn most effectively in Development Studies. However, we want these resources to be about more than examination success so we have also set wider goals, including an awareness of how the Development Study fits into the wider SHP course and how this kind of course provides a perspective on events in the world today. We therefore have dual aims: to ensure examination success and also to contribute to students’ broader education.

Here are the main features of these resources in more detail:

1) *This is not a ‘quick fix’ book*

It would have been easier and quicker to reproduce SHP’s ‘White’ Medicine book with some new pages tailored to the needs of OCR examinations. However, that would have meant ignoring all that has been learned about how to help students learn more successfully since the ‘White’ book was published in 1996. Therefore we decided on a complete rewrite, re-using material that has stood the test of time but adopting a fundamentally different strategy, constructing the book on a strong teaching and learning base in conjunction with the necessary content and exam advice.

2) *‘Big Story’ activities help students develop secure chronological understanding by charting key medical themes across time*

Experience shows that students need a strong grasp of the chronological overview before investigating each period in detail. Therefore ‘Big Story’ activities have been placed at the beginning of the Student’s Book to enable students to work out the pattern of the whole course, using five full spread ‘Medical Moments in Time’ reconstruction drawings. Each chronological section then allows students to build up detail, consolidating this initial overview.

3) *‘Meet the Examiner’ pages help students achieve better examination results*

These pages are tailored to help with the main question types in both the Development Study (‘Medicine and Health Through Time’) and the Historical Source Investigation (‘Developments in British Medicine 1200–1945’).

They show students how to avoid common errors and write better answers, providing sample answers for analysis and guided activities. They also give guidance on general exam skills such as time-keeping. These ‘Meet the Examiner’ pages have been planned so that they are integrated into enquiries, not bolted on artificially. They play a key role in concluding each section’s major enquiry while, at the same time, preparing students for exam success.

⇒ See this Teacher’s Resource Book **page 11** for details of ‘Meet the Examiner’ pages.

4) *‘Smarter Revision’ pages help students build up revision materials from the very beginning of the course*

Revision can be a hit-or-miss affair, especially for some boys and particularly when revision planning doesn’t begin until after the course has ended. We have therefore included revision activities from the very beginning of the course so that, by the time the course is completed, students should have a full set of revision notes and materials. We have also provided a range of methods of recording information to suit different preferences and topics. For example, ‘Living Graphs’ are used to record the patterns of themes over time, ‘Memory Maps’ record the key features of each period and ‘Role of the Individual Charts’ record the impact of individuals from Hippocrates to Beveridge.

⇒ See this Teacher’s Resource Book **page 10** for details of ‘Smarter Revision’ pages.

5) *The Student’s Book is built around a central enquiry that creates coherence and helps deepen students’ understanding of how history is studied*

Enquiry is at the heart of Key Stage 3 History and its Attainment Target and should be at the heart of the GCSE course too. Students will not only tackle individual period-based enquiries but will emerge from this Development Study with an answer to the much larger enquiry ‘Why do people today have better health and live longer than people in the past?’ This question provides a unifying theme throughout the book and offers at the end a sense of satisfaction at having emerged with a clear, albeit complex, answer. Students will also have gained a real understanding of the meaning of ‘enquiry’ and how it relates to the world beyond the classroom.

6) Outline, depth and saving time – choices for teachers and personalisation for pupils

Although we have included a lot less material than in the 1996 ‘White’ SHP book there is still more material in the books and the Dynamic Learning resources than some teachers and students will use. Therefore at the beginning of each section we provide an outline activity identifying the key features of medicine in the period and the balance of changes and continuities. That outline provides the core knowledge, which may be sufficient for some students but which can be augmented, if appropriate, by the more in-depth material that follows. In the in-depth sections we have created activities that can be tackled by groups working on different aspects of a topic, pooling their results to create a bigger answer. However, for some students, sticking to the outline activities will help prevent them getting lost in the detail while still giving them a sense of the key overall developments.

7) Effective integration of Student’s Book, Teacher’s Resource Book and Dynamic Learning resources

It’s easy to focus on the Student’s Book and see the other resources as secondary support acts but we have used each of these elements for the things it is best at. For example, you will find decision-making activities (e.g. ‘How would you have treated Charles II?’) on the Dynamic Learning resources but not in the textbook, where they wouldn’t work nearly as well. The SHP and Thinking History websites provide detailed descriptions of kinaesthetic activities, some of which are introduced by visuals in the Student’s Book.

⇒ See this Teacher’s Resource Book **pages 12–22** for details of the contents of the Dynamic Learning resources.

8) Visual and kinaesthetic – varied learning styles and experiences

Every student benefits from variety. Some students respond better to visual and kinaesthetic activities, while others enjoy reading and writing more. We have provided a wide range of different types of activity and presentational styles, aiming both at variety for all and at meeting the particular needs of students with individual learning styles.

9) Give pupils a real sense of achievement

A sense of achievement comes from a good exam result. It also comes from understanding why you’ve been doing a particular course – in this case why the Development Study on Medicine is part of the GCSE History course and how it relates to the

other parts of the course. Put most simply, we have tried to provide in the Student’s Book some answers to the age-old question ‘Why are we doing this?’ (see Student’s Book **pages 8–10**).

10) Enjoyment!

Nobody learns if they don’t enjoy what they are doing. All the activities, whether in the book or Dynamic Learning resources, have been created to maximise involvement and enjoyment and to help pupils care about the questions they are investigating. And we hope you will enjoy the material too!

SHP and the aims of the Study in Development

The main aim of the original Schools History Project (SHP), established in the early 1970s, was to enhance students’ grasp of the historical concepts and skills that they would find valuable both in and beyond the classroom. The original examination course had four main parts: a Study in Development, an Enquiry in Depth, a Modern World Study, and a study of ‘History Around Us’.

Each part was designed with special reference to particular skills and concepts, though they also had some common objectives, such as an insistence on the importance of the use and analysis of sources. Nowadays we would add that each section of the course is an enquiry in its own right but what is special about the Study in Development is that it is an enquiry over a long span of time, showing students that this kind of enquiry is possible and what its benefits are. That is why the student’s book is an enquiry into ‘Why do people today have better health and live longer than people in the past?’

Since the early 1970s and especially with the revised specifications of 2009, the exact nature of the GCSE course has changed. However, the underlying principles – of developing students’ understanding of the nature of history and demonstrating how it is relevant and useful to their lives – remain central.

The main aim of the Study in Development is to improve students’ ideas of development, change, continuity and causation. For example, fourteen year olds can think of historical change as a series of disconnected episodes or of development as an inevitable ‘march of progress’. The Study in Development aims to help students develop a more sophisticated understanding of the processes and nature of historical change. It should also consolidate their grasp of the chronological ‘map of the past’.

The originators of the SHP set out the following rationale for the Study in Development in *A New Look at History*, published in 1976. While we might express this

differently today, the core purposes remain the same:

‘... the adolescent needs to understand how change occurs in human affairs. This is important partly because at the present time we live in an age of increasingly rapid and built-in change, but also because the young need to be made aware that change is possible. The young should gain some understanding that life is not pre-determined but that the human being is a self-determining animal – unlike the ant or the bee he can consciously change his way of life. This being so it is essential for the next generation to know what is involved in changing the human situation so that when they wish – as some inevitably will – to change the present for a better or a different world, they will stand a reasonable chance of achieving what they desire. Whatever else history is, it is a study of change and continuity in human affairs. In this way it can relate directly to adolescent needs. Other subjects obviously offer accounts of change in human affairs, but history has a peculiar contribution to make here for two reasons. First, it emphasises that change can only be understood in the context of time and secondly, it emphasises the complexity of causation in human affairs. Other subjects may seek to explain change in terms of universal laws of general application, or by reference to particular and often short-term studies which are then made the basis for generalisations about change in human affairs. In so doing they may over-simplify the human situation, and offer a naive view of change. History can give adolescents a more realistic view of what change in human affairs involves.’

For further discussion of the principles of the SHP course see

www.schoolshistoryproject.org.uk

Why ‘Medicine Through Time?’

‘Medicine Through Time’ was the first SHP Study in Development and has been taught in schools since 1974. It was chosen because it demonstrates continuities, provides examples of rapid and gradual change and is a topic of importance in all periods of history. It provides opportunities to show how general political, social and intellectual changes, such as the coming of the first literate societies or of the Industrial Revolution, had particular effects in one specific field. Few themes provide such obvious opportunities for revisiting key periods and so deepening students’ sense of ‘the map of the past’. However, it should always be remembered that the primary aim is to understand the processes by which change takes place in human affairs and continuities from the past survive into the present. The aim is not to learn all about the history of medicine and public health from ancient times.

Intended learning outcomes

Awarding body specifications set out their objectives and the content to be covered in a very succinct way, sometimes so briefly that it can be hard for new teachers to build up an overview of what is required. The following summary sets out a broad framework of objectives.

At the end of their study of ‘Medicine Through Time’, students should have:

- 1) an overview of the main changes and trends in the history of medicine. This can be broken down into familiarity with the development of the following:
 - ideas of causes and cures of illness, from supernatural to natural to scientific
 - knowledge of medicinal drugs and herbs
 - knowledge of anatomy
 - surgical techniques
 - preventive measures, from hygiene to public health to vaccines
- 2) an understanding of how turning points in the history of medicine and general changes in society are linked together (see the following table)

Change in society	Turning points in medicine
The coming of organised, wealthy and literate civilisations	The establishment of a separate medical profession using a written body of knowledge
The Greek idea that it was possible to gain logical and rational knowledge of nature	The establishment of theories of natural causes of sickness such as the Theory of the Four Humours
The development of scientific enquiry after the Renaissance and into the nineteenth century	Scientific medical investigation leading to the following: exact anatomy, the theory of circulation of the blood, the germ theory of disease
The development of technologically advanced societies in the nineteenth and twentieth centuries	The production of technically complex drugs and surgical methods and the development of effective public health systems
The gaining of political rights by all classes in many countries in the twentieth century	The greatly increased involvement of the state with health

- 3) some understanding of the varying pace of change in medicine through time. Students should be able to discuss whether there has been a steady improvement in medicine or whether there have been periods of stagnation and decline
- 4) an appreciation that the history of medicine includes both continuities and discontinuities. For instance, herbal remedies have been used in all periods, while efficient water supply systems have had a discontinuous history
- 5) some understanding of the causes of change in the history of medicine, including:
 - The role played by long-term factors that have encouraged or inhibited change at different times, e.g. religion, science and war
 - The relationships between various factors that brought about particular developments at particular times and places, e.g. the germ theory of disease in nineteenth-century Europe and the development of penicillin in the mid-twentieth century in Britain and the USA
- 6) some ability to place their own lives in historical perspective, based on an appreciation of the disparities in health and life expectancy between past societies and our own.
 - The role of individuals in causing or preventing change, e.g. Hippocrates, Galen, William Harvey and Louis Pasteur
 - The role of organised groups in causing or preventing change, e.g. professional opposition to antisepsis, and political and social groups pressing for National Health Service
 - The ability to distinguish between long-term and short-term causes, and to see that some factors were more important than others in a given context
 - The ability to distinguish between immediate and long-term consequences, and to see that some consequences were unexpected or unintended

More generally, students should be aware that they have undertaken a historical enquiry and be able to talk explicitly about the process of carrying out such an enquiry. The idea of the enquiry is very important, as it relates directly to one of the key transferable benefits of studying history.

General teaching issues

1) Using and managing active learning

We have included references to a number of kinaesthetic activities in the Student's Book and there are references to other such activities in this Teachers' Resource Book. Over the past few years, we have seen how effectively kinaesthetic activities can motivate students and help them build big pictures on which to hang later learning. These tasks range from small-scale activities explaining, for example, the Theory of the Four Humours, to more complex concept mapping activities analysing the impact of different factors.

All students should have the opportunity to try out these types of tasks – not just for the sake of variety but also because kinaesthetic activities often have a beneficial impact on the learning of students who struggle with traditional written tasks or those with particular needs such as dyslexics. However, you should always think carefully in advance about the space you have available and whether a kinaesthetic activity will suit the particular class, the time of day, what they have done in previous lessons and other variables. Just because an activity worked well last year or with another class, don't assume that it will necessarily work with all classes. Bearing classroom management issues in mind, all the activities in this Teacher's Resource keep students' movement under your direction, with no unnecessary or uncontrolled student movement. This enables you to focus on your students' thinking, their questions and your own questions, in order to develop their understanding.

For more information on the principles and management of active learning and for a range of kinaesthetic activities, see

www.thinkinghistory.co.uk

www.schoolshistoryproject.org.uk

2) Differentiation and personalisation

We have incorporated differentiation and personalisation into the Student's Book in a variety of ways:

- Activities are varied in difficulty and in learning style. Some are writing based; some are active; some can take place entirely in the computer suite. This gives different types of learners – visual, auditory and kinaesthetic – opportunities to succeed and to show what they can do.
- Students are often asked to work in pairs or groups to do activities. You can structure the groups so that less able students work

alongside more able students or put students in same ability groups.

- Interactive tasks allow students to demonstrate their ideas to each other and to learn from each other.
- Answers are modelled, or opportunities are provided for teachers to model activities for the class, so that students can see how to improve their performance.
- The major section enquiries are open-ended and can be tackled by all students. They allow differentiation by outcome.

3) Following a core enquiry

The Student's Book is built around a core enquiry: 'Why do people today have better health and live longer than people in the past?'

This enquiry is introduced in Section 1, 'The Big Story', and can be linked to the individual 'period' enquiries in the other sections of the book. This enquiry does not form part of the specification so why have we structured the book around it?

- a) It unites the whole course and helps students to organise their knowledge. It is also easier to build an overview narrative of medical history in relation to a specific question.
- b) It helps students see the importance of the particular 'period' enquiries presented in the book.
- c) It emphasises the centrality of enquiry in GCSE History, established at Key Stage 3 (where enquiry is a major strand in the Attainment Target).
- d) It helps students relate their Development Study on 'Medicine' to the present day, showing how history sheds light on life today.
- e) It helps create a sense of achievement because, by the end of the course, students can offer a deeper answer to the enquiry than they could at the beginning.

However, there is one important word of warning: you need to get the balance right between keeping this core enquiry in mind and not overdoing it so that it generates 'not that again' responses from students. The enquiry needs to be maintained by regular, light references – stronger at the beginning, in the 'bridging' Section 5 (which summarises developments to around 1750 and later) and in the conclusion, but much lighter elsewhere.

4) Helping students 'declutter' their minds

Research evidence suggests that students can be easily swamped by information. Examinations show that candidates who display conceptual understanding and historical skills or memorise facts accurately may still fail to acquire an organised and usable 'map' of content based on a coherent understanding of medical history as a whole.

It is therefore important to plan teaching:

- a) to prevent the plethora of data from clogging students' minds so that they are unable to see the broad storyline and relate it to the core enquiry
- b) to help students with the complex task of manipulating and organising large amounts of information
- c) to relate to an overall enquiry, which by its nature helps students decide which information is relevant and useful.

It is vital that students retain a 'durable' overview of the 'Medicine Through Time' story. They cannot begin to consider questions about cause, change, development or significance unless they possess a clear overview of the narrative. This overview must be 'uncluttered'. It need not be detailed but it must be organised and the items within it must be relevant. Disconnected facts are of little value. It is thus essential to:

- a) establish what counts as a minimum overview for this overall enquiry. This can be expressed as an answer to our core enquiry about changes in health and life expectancy, using concepts of change and development through time, not a list of events

- b) ensure that students record overview information in a way that clearly distinguishes it from 'disposable' notes and exercises
- c) ensure that students can reproduce a minimal overview before embarking on detailed investigation of individual periods, analysis of factors and other conceptual problems.

Section 1 of the Student's Book, 'The Big Story', aims to establish a minimum overview relating to the book's core enquiry. We have also provided a range of Smarter Revision activities demonstrating ways of recording information in overview form.

5) What is the overall story?

Talk of a minimum overview isn't very helpful if this is the first time you are teaching 'Medicine' and your own grasp of the key events is in what could be politely described as 'a development phase'.

The overview below is therefore offered to aid new teachers, though it can also be used by department heads when discussing what counts as a minimum overview for particular classes. By its nature, a core enquiry provides a focus that helps select what goes in the overview. The story becomes clearer if it is presented in order to answer the book's overall enquiry 'Why do we have better health and live so much longer than people in the past?'

Overview

Prehistoric medicine

Health care was very important to prehistoric people. They built up a mass of practical knowledge of medicinal herbs and useful techniques, including the skill of trephining (cutting a small hole in the skull).

Prehistoric ideas about the causes and cures of ill health were probably based on magic and the spirit world, and the leading members of the group (or medicine men) may have combined practical wisdom with techniques to influence the spirits. However, despite their practical skills, life expectancy was very short compared with today.



Ancient societies and medicine – Egypt, Greece and Rome

Settlement brought writing and sufficient wealth to support specialist skills. Once people lived in towns and cities, doctors could be trained (in Egypt, for example) and medical knowledge began to be written down. At the same time, organised trade and improved metalworking helped provide a slightly wider range of herbal treatments and surgical techniques.

Egypt, Greece and Rome continued

Most people still blamed illness on gods and spirits but some Greek thinkers began to suggest natural causes rather than supernatural ones. Hippocrates' Theory of the Four Humours did not produce dramatic cures, but the practice of clinical observation, and recommendations based on the importance of rest, exercise and moderate diet, led to greater medical knowledge. Claudius Galen then built on the work of Hippocrates, writing many medical books and investigating anatomy through human dissection, whenever possible.

Large cities suffered from outbreaks of epidemic disease. In Rome, major public health measures were brought in, although their effectiveness can be over-rated. The Roman Empire was as vulnerable to plagues as medieval Europe, and average life expectancy was still no higher than 40.



Medieval medicine

The destruction of the Roman Empire meant that there was less organised medical training and fewer trained doctors but this mainly affected the better-off members of society. Most people continued to rely on a mixture of religion, charms and common sense, provided by local healers whose training came from practice rather than books.

The growth of universities from the 1100s onwards led to the re-emergence of trained physicians whose knowledge was based on the writings of ancient authors, especially Galen, augmented by the writings of Arabic scholars. There was little new research because physicians and the Catholic Church (which controlled education) believed that all worthwhile medical knowledge had already been discovered. Only surgery saw minor improvements because surgeons were prepared to experiment when faced with emergencies.

Public health conditions were poor, with little effort by governments to improve conditions. Attempts to stop plagues such as the Black Death relied on common sense and prayer. Therefore there were no breakthroughs to increase average life expectancy during the Middle Ages.



The Renaissance, Scientific and Industrial Revolutions

The first step towards real change came with the changing attitudes of the Renaissance. Vesalius questioned Galen's teachings and showed that he could be wrong on anatomical detail. The growth of scientific method, emphasising enquiry instead of belief in tradition, continued this process in the 1600s, with Harvey's discovery of the circulation of the blood being the outstanding example. However, even then such new discoveries met a lot of opposition and health and life expectancy did not improve.

From the 1600s onwards, and especially in the 1800s, the development of modern science and industry created a revolution in medicine. By the late nineteenth century, Pasteur had developed his germ theory, the most important turning point in medical history (until we discover the full impact of the discovery of DNA), and there were new methods of prevention, such as vaccination.

Scientists also developed anaesthetics and antiseptics and engineers contributed improved sewers and water supplies to industrial towns after 1850. Governments began to enforce public health reform. However, though these new tools and ideas were undeniably important, they were still only beginning to have an impact on life expectancy by 1900, when average life expectancy was just reaching 50.



Medicine in the twentieth century

Since 1900, medical technology has transformed treatment and disease prevention, with the development of new drugs, vaccines and surgical techniques. State-run medical services have made professional medical care available to all for the first time. The discovery of DNA and the development of new medical techniques based on DNA now promise at least as great a medical revolution as that triggered by germ theory. While many of these changes stem from progress in science and technology, wars and the growth of democracy have also played major roles. Life expectancy and health are, on average, now much improved as a result.

At the same time, 'high-tech' medicine has also created a variety of ethical debates, and the distribution of good health services is extremely variable in different parts of the world. The World Health Organization is attempting to spread the benefits of modern medicine more evenly around the globe.

6) Prompting students to reflect upon their own assumptions and ideas

Students do not grasp concepts and acquire skills in history by learning definitions expounded to them by their teachers. They learn by using and refining the concepts and skills they already possess. Students invariably have ideas and assumptions about how and why things happened in the past. These can only be clarified as the students themselves experience difficulty in making sense of the past and come to recognise the limitations of, and the contradictions between, their existing ideas. This means that teachers need to:

- a) seek to establish what is going on in students' minds. By observing that certain mistaken or inadequate responses appear to students to be sensible and adequate answers to questions, teachers can work out what assumptions students are making about the past and about what is involved in historical explanation
- b) encourage students to think about and discuss their own ideas. Some teachers have based class discussion on individual or group work, exploiting differences in conclusions, arguments and explanations, and inviting elaboration, support or criticism of the arguments advanced. In a discussion about whether or not certain developments should be considered examples of progress or regress, a class might first discuss the meaning of 'progress' before moving on to apply the concept to history
- c) pose problems and questions that genuinely reflect the difficulties encountered and the misconceptions held by the students themselves
- d) try to relate conceptual problems to 'core' questions that can be posed over and over again

with different material. Some examples of core questions:

- Why are wrong ideas and useless developments sometimes important in history? How can they matter if they are wrong or useless?
- Why did some things have to be discovered more than once?
- Why do people persist with practices that are inefficient or that do more harm than good?
- Things often happen that nobody wants, or things that many people want don't work out. Does this mean that people have no effect on history?
- If every change has some bad effects for some people, is there such a thing as 'progress'?
- If we say 'x was the cause of y', does this mean that once x happened then y was bound to happen?

7) Helping students understand why they're studying 'Medicine and Health Through Time'

When you get enmeshed in specific teaching issues (Are we making fast enough progress? What do they really need to understand about the four humours? What kinds of exam questions do I need to prepare for?), it's easy to forget the bigger picture and by this we mean:

- 1) How does this Development Study inform students' understanding of their world?
- 2) How does the Development Study fit into the History GCSE course as a whole?
- 3) What have we learned about studying history?

Although these questions won't take up a lot of time they are worth discussing with students at fairly regular intervals. Occasional brief discussions are preferable to a single 'one-off' session because it is likely (and desirable) that students' ideas on these questions will develop as they progress through their course.

1) How does this Development Study inform students' understanding of their world?

Bringing the history of medicine up to date is useful but it isn't enough. It's more helpful to use students' newly acquired knowledge and understanding of how changes happen, and how people react to events, to reflect upon current medical news items. We have modelled this in the Student's Book (pages 204–05) but you will want to update these examples using actual events in the news during teaching. Equally, you can also update and use your own personal examples of the stories told in Activity Sheet 1.

2) How does the Development Study fit into the GCSE course as a whole?

Previous SHP resources have failed to communicate to students and teachers how 'Medicine' fits into the overall GCSE scheme. This has led to students saying they've 'done Medicine, American West, etc' for GCSE but being left with what seems like a jumble of different bits of the past. In fact, the SHP set up this particular course for more specific purposes – to build conceptual understanding and skills through the study of a deliberately diverse set of approaches to history and a deliberately diverse set of topics. We have tried to address this by including pages 8–11 in the Student's Book, which briefly identify the course context and aims of the Development Study. We hope you will come back to this little and often so that students understand how their whole GCSE course fits together and the particular aims of the Development Study fit within the course.

3) What have we learned about studying history?

While the Development Study is an enquiry over a very long period of time, it is still an enquiry like any other historical enquiry. The 'Big Story' introduces the question 'Why do people today have better health and live longer than people in the past?' and by the end of the enquiry students should have a clear answer. They should also be able to see that this enquiry approach applies to the rest of the history they study and why this approach may be useful to them beyond the classroom.

Where can you find Smarter Revision guidance?

Smarter Revision pages provide templates for creating revision materials. They are concentrated near the beginning of the book so that students can develop revision materials from the very start of the course. The aim is that students should have a full

set of revision notes and materials by the time the course is completed, rather than starting that process after the course has ended. Each revision format is used for a different purpose, as shown below, but students may wish to vary this if they find particular methods of note-making more effective than others.

Each of these templates is provided in the Teacher's Resource Book and in *Medicine and Health Through Time Dynamic Learning 3*.

- **Living graphs** – to record the development of key themes across time. Student's Book pages 6–7 and Activity Sheet 3.
- **Memory maps** – to record the key features of medicine in each period. Student's Book pages 14–15 and Activity Sheet 8.
- **Role of the individual charts** – to record the work and impact of key figures in medical history. Student's Book page 27 and Activity Sheet 14.
- **Use your digital camera** – to record the key features of an individual's work or of the developments in a period. Student's Book page 37 and Activity Sheet 16.
- **Factors charts** – to analyse the impact of factors within a period. See Student's Book pages 44–45 and Activity Sheet 18.
- **Concept maps** – to explain why changes take place or continuities persist. See Student's Book pages 102–103 and Activity Sheet 32.
- **Freeze-framed photos** – to record changes and continuities. See Student's Book page 183 and Activity Sheet 57.

Where can you find 'Medical Moments in Time' activities?

These reconstruction drawings, with their speech bubbles and information boxes, provide a visual record of the key features of medicine in each period. These can be used:

- a) as part of the 'Big Story' activities (pages 2–7) to help students build up an initial overview of the pattern of medical history
- b) as an introduction to each period
- c) as a template for students to create their own version for today.

These illustrations can also be found in *Medicine and Health Through Time Dynamic Learning 3*, with actors providing voice-overs for the speech bubbles.

Roman Londinium, AD200

Student's Book pages 12–13 and Activity Sheet 7.

London, 1347

Student's Book pages 50–51 and Activity Sheet 21.

London, 1665

Student's Book pages 86–87 and Activity Sheet 31.

London, 1848

Student's Book **pages 118–19** and Activity Sheet 39.

London, 1935

Student's Book **pages 120–21** and Activity Sheet 40.

Where can you find 'Meet the Examiner' guidance?

The 'Meet the Examiner' pages provide detailed guidance on performing well in examinations. Individual spreads are tailored to help with the main question types in both the Development Study (Medicine and Health Through Time) and the Historical Source Investigation (Developments in British Medicine 1200–1945).

The Student's Book pages listed below provide guidance on the Development Study exam unless they are specifically described as Source Investigation pages.

Section 2 Ancient medicine

Pages 46–47 Introducing Development Study questions – identifies exam structure and types of questions.

Pages 48–49 How to de-code exam questions and tackle 'describe' questions.

Section 3 The Middle Ages

Pages 74–75 How to understand factors and write effective explanations.

Pages 76–77 The Black Death – identifies exam structure and types of questions.

Pages 78–79 Public health – how to make inferences and cross-reference sources.

Section 4 The Renaissance

Pages 100–01 How to evaluate statements about change within a period.

Pages 104–05 Quack doctors – how to evaluate sources and place them in their historical context.

Section 5 Medicine in 1800

Page 109 How to evaluate statements about long-term change.

Pages 114–17 Jenner and vaccination – how to use sources to reach an overall conclusion.

Section 6 Fighting disease after 1800

Pages 136–37 How to plan your exam time and tackle 'iceberg questions' about importance.

Pages 138–41 Fleming and penicillin – explaining why sources disagree and evaluating statements using sources and knowledge.

Section 7 Public health after 1800

Pages 144–47 Nineteenth-century public health – tackling 'How far do sources prove ... ?' questions.

Pages 152–53 'How far do you agree ... about factors?' questions.

Pages 164–65 How to evaluate the reasons for change.

Section 8 Surgery since 1800

Pages 166–67 Surgery in the early 1800s – practising inference skills and reaching judgments.

Page 169 'Are you surprised by ... ?' source questions.

Page 182 How to improve that answer! Comparing the significance of factors.

Section 9 Hospitals

Pages 187–89 Florence Nightingale and Mary Seacole – complete paper for practice.

Section 10 Conclusions

Pages 198–99 How to evaluate the overall importance of factors.

How the Dynamic Learning activities relate to the Student's Book

Medicine and Health Through Time **Dynamic Learning 1: People and Periods**

By Ian Dawson and Dan Moorhouse
ISBN 978 0340 946 718

Common features in each chronological section

'Introducing...' activities

There is an introductory activity for each major period. These are important activities because they get students into 'thinking mode' immediately, rather than assuming that they can't think until they have acquired a lot of information. These activities focus on helping students to:

- identify key features of the period in general
- suggest the possible impact of these aspects on medicine
- reach an overall hypothesis about the likely extent of change in the period they are about to study.

'What really changed?' activities

These provide a concluding activity for each period, enabling students to create a simple visual summary of which aspects of medicine changed the most and which did not change. Using the same style of summary activity several times will help students perform this task more effectively. These 'washing line' summaries can be annotated and then be printed out or saved for revision.

Links to the Student's Book

The final column notes the Student's Book pages or section to which each Dynamic Learning activity is most obviously linked. However, many of the Dynamic Learning activities can be used in a variety of ways, as an introduction, as the main way of covering a topic or as a conclusion or revision activity. The approach you choose may well vary from class to class.

Activity title	Description of activity	Book section or page link
The Ancient World		
Introducing ancient medicine	A starter to get students thinking, providing clues on key aspects of societies for students to suggest their impact on medicine. Plus true-or-false consolidation activity.	12–13
Will you survive in ancient Rome?	Decision-making activity based on 'White' Medicine book, page 50. Use as introduction or conclusion to ancient medicine.	34–35
What was new? What was old?	Three-part activity introducing key features of Egyptian, Greek and Roman medicine, asking students to identify changes and continuities.	12–13
Why were there changes and continuities in ancient medicine?	Four-part extended activity, guiding students from 'Spot the factor' to using a writing frame for extended conclusion.	44–45
What really changed in ancient medicine?	Summary asking students to place individual aspects of medicine (surgery, treatments, etc) on a change–continuity washing line. Can be annotated and saved for comparing with other periods.	42–43

Activity title	Description of activity	Book section or page link
The Middle Ages		
Introducing medicine in the Middle Ages	A starter to get students thinking, providing clues on key aspects of society for students to suggest their impact on medicine. Plus true-or-false consolidation activity.	50–51
Can you stop the Black Death?	Decision-making activity tracing development of Black Death and introducing ideas about its causes and methods of stopping its spread.	52–53
Did they really care about keeping clean?	Based closely on illustration and evidence of fourteenth-century London in 'White' Medicine book, page 66. Asks students to use evidence to create hypothesis about public health system.	72–73
What really changed in medieval medicine?	Summary asking students to place individual aspects of medicine (surgery, treatments, etc) on a change–continuity washing line. Can be annotated and saved for later comparison with other periods.	56–57 or as section conclusion
The Renaissance		
Introducing medicine in the Renaissance	A starter to get students thinking, providing clues on key aspects of society for students to suggest impact on medicine. Plus true-or-false consolidation activity.	80–81
Was the Renaissance an important period in medical history?	A web page to evaluate, redesign and rewrite to give a more complete and accurate portrayal of the impact of the Renaissance on medicine.	100–01 or 86–87
Why did Paré change surgery?	Activity tells Paré's story with students identifying factors and recording their impact, then creating a diagram to show links between factors. Can be annotated and saved.	92–93
What really changed in Renaissance medicine?	Summary asking students to place individual aspects of medicine (surgery, treatments, etc) on a change–continuity washing line. Can be annotated and saved for later comparison with other periods.	85–87 or 100–01
The Industrial Revolution		
Introducing medicine 1750–1900	A starter to get students thinking, providing clues on key aspects of society for students to suggest impact on medicine. Plus true-or-false consolidation activity.	118–19

Activity title	Description of activity	Book section or page link
Spot the continuities!	Ten short video-clips, filmed at the Thackray Medical Museum, asking students to identify how these features of nineteenth-century medicine were continuities from earlier periods.	118–19
Why were towns so unhealthy?	Investigation based on nine contemporary images, asking students to identify public health problems and explain why they existed.	Section 7
Public health or Pasteur? Why did health begin to improve?	Summaries of health in 1800 and 1900, leading to a drag-and-drop activity comparing the impacts of developments in public health and germ theory.	After Sections 6 and 7, as a conclusion to both
The revolution in surgery	An investigation of surgical problems and reforms, leading to students amending and completing a draft PowerPoint presentation.	Section 8
What really changed in medicine 1800–1900?	Summary asking students to place individual aspects of medicine (surgery, treatments, etc) on a change–continuity washing line. Can be annotated and saved for later comparison with other periods.	122–23 and after Section 9
The Twentieth Century		
Introducing medicine since 1900	A starter to get students thinking, providing clues on key aspects of society for students to suggest impact on medicine. Plus true-or-false consolidation activity.	120–21
Penicillin – who, when and why?	Students identify the range of factors involved in discovery of penicillin and then rank them in importance.	132–33
Create your own story of the NHS	Students create a Movie Maker presentation using the images, source and weblinks provided.	160–63
What really changed in medicine after 1900?	Summary asking students to place individual aspects of medicine (surgery, treatments, etc) on a change–continuity washing line. Can be annotated and saved for later comparison with other periods.	122–23 and conclusion
The discovery of DNA: why did it happen then?	Activity tells the story of DNA, with students identifying factors and recording their impact, then creating a diagram to show links between factors. Can be annotated and saved.	Possibly Section 6 or to link to present in book conclusion

Medicine and Health Through Time Dynamic Learning 2: Review and Revise

By Ian Dawson and Dan Moorhouse
ISBN 978 0340 946 725

Image and Source Banks

These sections bring together all the documents, artwork and photographs used on *Medicine and Health Through Time Dynamic Learning 1* and *2* for use by students and teachers in Movie Maker

and PowerPoint presentations.

Links to the Student's Book

These activities can all be helpful for revision but some can be used on other occasions during the course and you can use the Lesson Builder function to extract sections of activities when covering individual periods.

Activity title	Description of activity	Book section or page link
Themes		
Public health through time	Students are given a range of sources from which they first assess the quality of public health provision in each period. Based on this, they can create their own Movie Maker presentation.	Section 7 and conclusion
Surgery through time	A summary activity. Five short activities reinforce students' knowledge of individual periods. The final activity requires them to think across the whole history of surgery.	Section 8 and conclusion
Factors		
The impact of wars through time	Students build up a help–hindrance washing line from sources and pictures, showing the various effects of war across time. The completed activity and summary screen can be annotated, printed or saved.	198–201
The impact of governments through time	A research activity, possibly to be done as a class, with groups investigating different topics. Results are recorded on a summary screen, which can be annotated, printed or saved.	198–201
Chronology		
When do they come from?	Students identify the period each one of 15 images comes from. This can be extended into an inference exercise – what does each image tell you about medicine at this time? Can be used as revision or just use two or three images as a sharp lesson starter.	Conclusion or use Lesson Builder to extract items for use in period enquiries.

Activity title	Description of activity	Book section or page link
What happened first?	This activity uses twelve cards. Students click on pairs and decide which came earlier in history. Revision or a sharp lesson starter.	Conclusion
Healers and treatments through time	This activity is about anachronism – students choose a period, then select from a given set of options the items that do not belong in that period.	Conclusion
Historical skills		
Using sources	Students develop source skills using 'The Court of King Cholera' cartoon.	Source Investigation tasks
Source analysis	Students develop source skills with two written sources and one visual source.	Source Investigation tasks
Changes and continuities	This activity brings together the 'What really changed...?' activities in Dynamic Learning 1 so students can create clear visual summaries of the major changes and continuities in each period.	Conclusion
Change or continuity?	Eight images and sources – students decide whether they are evidence of rapid change, slow change, continuity or regression.	Conclusion
How have factors affected the development of medicine?	Eight developments – students decide which factors were behind each development.	Conclusion
Why did it happen then?	Students create a factors chart showing why changes took place in the Renaissance period. There are two levels of difficulty.	102–03
Test your knowledge		
Why are they famous?	Students click on pairs of cards and see if they can link the individual and their achievement. Four screens cover a wide range of key individuals.	Conclusion
The history of medicine Blockbusters game	A simple Blockbusters revision game – for individuals or teams.	Conclusion
Quiz time	Quiz games on each of the major periods of medical history.	Conclusion

Activity title	Description of activity	Book section or page link
Smarter Revision		
Treatments and preventative measures in medicine	Students create a set of Top Trumps cards on different aspects of treatments and prevention.	Conclusion
Individuals in medicine	A second Top Trump card activity – this time on individuals.	Conclusion
Medicine Dingbats game	Students create the cards, identifying key aspects of a person's work or a development, then play Dingbats.	Conclusion
Make your own revision cards	Students create cards to help with revision of major themes, periods and factors.	Conclusion
How did life in Egypt affect medicine?	Structured inference from artwork on Student's Book page 22 .	20
Public health from the Romans to the Saxons	Students annotate artwork images to record key features of public health during and after the Roman period.	41 and 72–73
Pasteur, Koch and the development of germ theory	Students drag six sentences into order to summarise this story.	128
Why did medicine and health change in the nineteenth century?	Students choose from a list of factors to identify the factors leading to a series of developments in the 1800s.	Conclusion
Factors in medical history	Label the factors diagram from 'White' Medicine book page 187.	Conclusion
Source bank	All the documentary sources used in Dynamic Learning 2, divided by period.	
Image bank	All the artwork images and photographs used in Dynamic Learning 2, divided by period.	
Animation bank	Six short explanations, with illustrations, on: 1) Egyptian ideas about the causes of illness 2) Hippocrates and the four humours 3) Galen, dissection and anatomy 4) Harvey and the circulation of the blood 5) Jenner and vaccination 6) Magic bullets	
Video bank	Nine short films, made with the help of a re-enactment group, showing consultations between medieval healers and their patients. Each section can be used separately.	68–71

Medicine and Health Through Time Dynamic Learning 3: Exam Busters

By Ian Dawson and Sally Burnham
ISBN 978 0340 991 411
Published in June 2010.

Links to the Student's Book

The final column notes the Student's Book pages or section to which each Dynamic Learning activity is most obviously linked. However, many of the Dynamic Learning activities can be used in a variety of ways, as an introduction, as the main way of covering a topic or as a conclusion or revision activity. The approach you choose may well vary from class to class.

Activity title	Description of activity	Book section or page link
Smarter Revision templates		
Living Graph	This type of graph can be used with the Big Story activity to build initial patterns of change and continuity and can then be revisited and revised throughout the course.	6–7
Memory Map	This activity is set up in the book for the ancient period, to record the key features of medicine, but the template can be used for every period.	14–15 and each section
Role of the Individual Chart	This chart is introduced for Hippocrates but the template can be used to build up a set of charts for a range of individuals.	27 and all important individuals
Factors Chart	This chart is introduced to record the impact of factors on ancient medicine but the template can be used for all periods.	44–45 and all other periods
The Big Story		
Medical Moments in Time	These screens reproduce the five reconstruction drawings with speech bubbles voiced by actors. They can be used in conjunction with the Living Graph template.	12–13, 50–51, 86–87, 118–19, 120–21
Big Story of Medicine	Students build up a sense of the overview, pasting clues onto a timeline.	2–7
Ancient medicine		
Review story	Students can record or write their summary of ancient medicine, using a series of images provided on PowerPoint slides.	42–43

Activity title	Description of activity	Book section or page link
Natural or supernatural?	A review activity asking students to decide whether a series of treatments and ideas about illness were prompted by natural or supernatural ideas.	42–43
How long did the ideas of Hippocrates and Galen last?	A timeline activity asking students to suggest which period a series of sources come from. The resulting timeline summarises the lasting impact of the ideas of Hippocrates and Galen.	Big Story and throughout
The Middle Ages		
Saving Galen	A voice-over account of how Galen's work was preserved in Europe and in Arab literature, leading on to students annotating a map to summarise the key points.	60–61
What do they tell us about medieval medicine?	A series of visual and documentary sources to help students develop their inference skills. Each item can be annotated on screen and printed for revision.	50–51
The Renaissance		
How would you treat Charles II?	A decision-making activity based on 'White' Medicine book pages 106–107. This leads into a summary activity identifying changes and continuities in Renaissance medicine.	82–83 or 86–87
How did they try to stop the plague spreading in 1665?	A research task that asks students to identify the methods used in 1665 and compare them with those used in the 1340s.	98–99
Medicine in 1800		
What can we learn about Jenner?	Activities focusing on key visual sources, aimed at developing source skills.	110–17

Activity title	Description of activity	Book section or page link
Fighting disease		
The story of Pasteur and Koch	The story told by Pasteur and Koch, each giving his view followed by a set of PowerPoint illustrations on which students can record their version.	128–31
Public health		
The mystery of the water pump	Students follow the footsteps of John Snow, uncovering evidence explaining why cholera hit some streets but not others.	155
Surgery since 1800		
Investigating the surgical revolution	An open-ended enquiry enabling students to explore in their own ways three possible questions: Why did these breakthroughs happen? Why was there opposition? Which breakthrough was most significant?	Section 8
Conclusion		
The road to Bacteria-ville	Students can record a commentary on the reconstruction drawing, explaining the significance of each detail.	194–95
Factors football pitch	A summary activity enabling students to place the factors on the pitch to show their relative impacts on medicine. The screen can be annotated with evidence.	198–201

Dynamic Learning Lesson Builder

In *Medicine and Health Through Time Dynamic Learning* you will also find a Lesson Builder like the one below, which allows you to mix together into a single lesson or lesson sequence any of the following:

- the activities on *Medicine and Health Through Time Dynamic Learning* 1, 2 and 3
- your own resources from your own virtual learning environment (VLE)
- web-based resources and investigations.

Familiarise yourself with Dynamic Learning

You should think of the Student's Book, the Teacher's Resource Book and the Dynamic Learning resources as parts of a whole. They belong together. Make sure you have familiarised yourself with the Dynamic Learning activities as

well as the contents of the books. These sometimes provide different ways of tackling the same task. **Pages 12–20** of the Teacher's Resource Book summarise all the activities that are on *Medicine and Health Through Time Dynamic Learning* 1, 2 and 3. We have gone to town on these, with dozens of innovative and engaging ICT-based interactive activities, Flash animations, demonstrations, starter and plenary activities and more. These are designed for use on the interactive whiteboard or on computer networks and VLEs.

A varied approach is clearly important in maintaining pupils' interest and motivation and this set of resources has been put together to help you plan coherently while catering for the varied learning styles of your pupils. The choice of resources to use at a particular time and place should be determined by the nature of each class, the context of the lesson and the learning needs of the pupils – and this is where your professional judgement will enable you to get the best out of the variety of resources on offer.

The screenshot shows the 'Lesson Builder' interface for 'Medicine and Health Through Time CD-ROM 1'. The window title is 'Lesson Builder' and the subtitle is 'Sample lesson - The Black Death'. The interface includes a toolbar with icons for file operations and a 'Play lesson' button. The main area displays a table of resources:

Type	Name of Resource	Title				
Lesson notes						
1	Sample lesson notes: Black Death	Medicine and Health Through Time 1	N/A			
Starter Activity: What was medicine like in the Middle Ages?						
1	2.1 Hotel Dieu	Medicine and Health Through Time 1	Middle Ages Image Bank			
2	2.3 Physician tending to patients	Medicine and Health Through Time 1	Middle Ages Image Bank			
3	2.2 Arab diagram of herbs	Medicine and Health Through Time 1	Middle Ages Image Bank			
4	Middle Ages 1B: Introducing medicine in the Middle Ages	Medicine and Health Through Time 1	Middle Ages Activity 1			
Study in Depth: The Black Death (Section 1)						
1	2.5 Edward III	Medicine and Health Through Time 1	Middle Ages Image Bank			
2	Middle Ages Activity 2A: Can you stop the Black Death?	Medicine and Health Through Time 1	Middle Ages Activity 2			
3	Middle Ages 2: Voting Activity 1	Medicine and Health Through Time 1	Middle Ages Activity 2			
4	Middle Ages 2: Voting Activity 2	Medicine and Health Through Time 1	Middle Ages Activity 2			
5	Middle Ages 2: Voting Activity 3	Medicine and Health Through Time 1	Middle Ages Activity 2			

The sidebar on the right contains navigation options: Resources Overview, Contents, Search, and Lesson Builder. The Dynamic Learning logo is visible in the bottom right corner.

Useful books and websites

Books

Colin Shephard and Rosemary Rees, *OCR Medicine Investigations*, Hodder Education, 2004.

An excellent set of activities preparing students for the Source Investigation paper, written by the most experienced OCR chief examiners. It contains advice on using sources, answering specific types of questions and lots of additional source material on the specified topics for the Source Investigation paper (e.g. quack medicine).

Ian Dawson and Ian Coulson, *Medicine and Health Through Time*, Hodder Education, 1996.

This 'White' book contains some detailed information and some activities that have been omitted from this new publication. The accompanying TRB also contains a wide variety of activities that can supplement this book.

Teaching History, the quarterly journal of the Historical Association (HA), contains many articles of importance for teaching the history of medicine even if they don't deal with the specific content. Successful teaching depends on a good understanding of a wide range of aspects of teaching and learning – building effective discussion, helping students develop extended writing skills, building understanding of individual concepts and many more. So a subscription is a really worthwhile investment and members of the HA can read back issues on the HA website: www.history.org.uk

Websites

www.schoolshistoryproject.org.uk

SHP website providing information on the SHP's aims and principles plus news of the annual conference, courses and publications and a range of resources from course planning to teaching activities.

www.thinkinghistory.co.uk

Run by Ian Dawson, providing a wide range of kinaesthetic activities for all ages, including a wide range of 'Medicine' activities.

www.ocr.org.uk/index.html

OCR examining group.

www.qcda.org.uk

Qualifications and Curriculum Development Agency.

<http://www.qcda.org.uk/history/innovating>

History-specific site with a lot of good teaching ideas.

<http://medicinethroughtime.co.uk>

Run by Dan Moorhouse, focusing on ideas and resources for teaching 'Medicine'.

www.thackraymuseum.org

Thackray Museum, Leeds, a 'must visit' site for many schools doing 'Medicine'. Ian Dawson, former SHP Director and one of the authors of this book, helped design the museum and wrote the first GCSE resource pack. Resources available by post include the Hannah Dyson ordeal DVD/video on early nineteenth-century surgery. You can now also download lectures on medical history.

www.sciencemuseum.org.uk/broughttolife.aspx

Online from 2009, this site provides a very wide range of sources, organised partly with teachers in mind. Chris Culpin, former SHP Director, played a part in its planning.

www.medicalmuseums.org

Site providing information on a range of medical museums in London.