Cooper, H. (2012) History 5-11: a guide for Teachers, London: Routledge. CHAPTER 4

Concepts, Time and Chronology

A What are historical concepts?

Procedural or substantive concepts. Key historical concepts are concerned with the processes of historical enquiry, making deductions and inferences from sources and combing sources to create accounts which trace changes over time. These concepts include: evidence, source, cause, effect, similarity, difference, continuity, change, validity, interpretation.

■ Time concepts. Other concepts central to history are concerned with the measurement of time (now, then, decade, century) or with describing periods of time (Victorian, Elizabethan).

■ Some concepts used in history are vocabulary no longer used or used very differently today: villa, bailey, common.

■ Concepts central to history but not exclusively historical. These are concepts which are at the heart of the process of tracing changes in societies, and their subordinate concepts. Examples are: agriculture (farm, field, crops, etc.); trade (buy, sell, profit, wealth); defence/attack (fight, battle, weapon).

A Learning theory and historical concepts

Vygotsky (1962) pioneered research into how we learn concepts, which has been developed subsequently. Firstly, concepts are hierarchical. For example, if children are introduced to, and encouraged to use, the word castle, perhaps on a visit, they may associate it initially with this particular building. Through talking about the visit, the drawbridge, the moat, the mound, the battlements (level 1 concepts), they will be introduced to and use specialised concepts which are all part of an overarching concept, castle (level 2). They will become aware, through the talk and the concrete examples, that a castle was built for defence against attack. This will give the owner power. Hierarchies are not always clear and are often blurred around the edges, so defence, attack and power may all be categorised as level 3. Children do not necessarily learn the most concrete concepts first, but there is evidence that

B Learning complex concepts

Children learn new concepts by sorting into categories at first through physically sorting pictures or artefacts into groups using trial and error and discussion. The teacher may initially suggest the categories, for example 'old' and 'new' objects can generate a great deal of discussion amongst young children of what these concepts mean. Later they can sort images into categories they select. The same set of pictures about, for example, Elizabethan England, may be divided into town and country, rich and poor, adults and children, work and leisure. (They might collect pictures from books and photocopy them, or from the internet to make the cards themselves). This is an activity through which children can learn key concepts through images and talk. It is open ended: more able children/adults; leisure and different types of leisure activities. They create diagrams or lists based on the sets, or write paragraphs describing images of rich and poor children and speculate further about their lives. Perhaps they will suggest more complex categories: contemporary or later; levels of validity, techniques and media used to create them.

I used activities base on a power point image of Frith's Railway Station (1862), (downloaded from www.rhul.ac.uk/visitors-guide/picture-gallery.html) to introduce an 'overarching' concept devised by historians, 'The Industrial Revolution'. Wideranging discussion of the image gradually led to the introduction of concepts which are central to the Industrial Revolution, such as iron, coal, steam, clock-time, mobility, middle classes.

The children then sorted images of coal mining, iron mining, industrial cities steam power, (used to power engines, ships, machines in factories). Sorting these into categories, then suggesting the connections between the categories conveyed an enormous amount of knowledge about the Industrial Revolution, generated a lot of conversation and raised many questions. Some complex and important concepts were learned without the need for any reading or writing

If they are explicitly introduced to new vocabulary at each level and given opportunities to use it, quite young children enjoy using and experimenting with 'hard words' (Chapter 11). Vygotsky showed how concepts are learned through trial and error, in communication with others. A visit to a castle may be followed up by research to find more examples of castles. A peel tower may be rejected because it is 'only a house', which could lead to discussion about whether being fortified justifies its inclusion in 'castles'. Or claims may be made that a monastic ruin is a castle because it is built of similar materials, which would lead to further refining of the concept of castle. A Victorian folly such as Balmoral could extend the discussion further: what exactly is the definition of a castle?

A Concepts of time and Chronology

B Similarities and differences between periods

History for All (Ofsted 2010) found that primary pupils had a good understanding of the topics they had studied. Indeed a study in 1997 comparing what ten year old children in five European countries said they knew about the past found that the English children were by far the most the most knowledgeable, referring to every topic in the National Curriculum (Cooper 2000). However the *History for All* report was critical of children's concepts of time and chronology. Firstly, children were not able to compare similarities and differences between periods. Maybe this could be remedied by building key concepts into each study unit, for example religion, homes, leisure, transport, conflict art and music. This would give children the knowledge from which to speculate about similarities and differences and the reasons for them and the causes and effects of changes and how they interconnect.

BThe Big Picture

Secondly, Ofsted (2010) found that children did not have a coherent mental map, a 'big picture' of the past or a sense of the duration of periods or of the gaps between periods or events. Blyth (1994 p 154) recognised that 'the basic problem in primary history is how to combine development in children's thinking with the sweep of history itself'). This is hardly surprising given the chronological gaps between the study units of the national curriculum which omits study of the Middle Ages, the seventeenth and eighteenth centuries and the early nineteenth century in primary schools. It would be difficult therefore to make reasonable hypotheses about reasons for changes across periods. What was the reason for castles and why were they abandoned? How did Tudor expansion become the British Empire? What caused the Second World War? Certainly asking questions about time and change is central to historical enquiry, yet the curriculum did not facilitate this. Hodkinson (2003b) analysed the ways in which the National curriculum failed to encourage chronological understanding: five to seven year olds and less able older children were expected to use vocabulary describing the passing of time (a long time ago, now, the, before after)

yet temporal vocabulary was not mentioned in the study units or schemes of work for seven to nine year olds and the learning tasks, vocabulary and use of resources in other units were, Hodkinson claims, vague and inconsistent. He finds the use of such terms as 'a long time ago' confusing since children's understanding of such a term varied from a few years ago to hundreds, thousands or billions of years ago. Nevertheless it is important to remember that, 'knowledge and chronology are by no means synonymous with historical sense. Teaching History involves coming to terms with particular ways of explaining time to children which could, and sometimes does, run the risk of moulding children into preferred patterns of thinking, just as a rigid school timetable segments the day into artificial boxes' (Lello 1980:347). It is also important to be aware that the selection of content on timelines raises important questions about significance and to be articulate about why the these are considered significant and by whom.

B Concepts of time

Concepts of time are complex. They are subjective. One study found that farm labourers in a French village, whose families had lived there for generations, had a perspective which went beyond their personal experience, whereas immigrant glassblowers from itinerant families who moved into the village were almost without a sense of the past (Bernot and Blancard 1953). The concept of time is also cultural. The doings of Cromwell, the Act of Union and the Famine of 1847 may seem more recent to an Irishman than to an Englishman. Teachers need to be aware of children's different personal and cultural narratives, given the enormous migration in the modern world. As Bruner has written (1996: 41) 'It is not easy, however multicultural your intentions, to help a ten-year-old create a story that includes him in the world beyond his family and neighbourhood, having been translated from Vietnam...Algeria...Anatolia...'. Yet time and chronology can help children to place themselves within a temporal and cultural context and so form a sense of identity. For young children this helps them to see relationships within their own families, then wider groups - local communities, country, cultural background. Bruner continued that, 'If school, his pied – a – terre cannot help him there are alienated counter cultures that can'. Concepts of change also change with age. I remember when 'next Summer' seemed an infinity away, four years at University seemed endless, yet now decades seem to spin by.

B Measuring Time

Recently there has been a considerably increased emphasis in some quarters on the need to know dates, although the reasons for the importance of dates in developing chronological understanding has not been explained. Chronology is derived from the Greek meaning a study of time. It is not simply a matter of reciting the dates of the kings and queens of England, which in itself has little purpose. Understanding chronology involves understanding concepts of sequence, change, duration and causes and effects of changes, reasons for slow changes or rapid changes. This is central to historical enquiry and understanding.

Understanding how to represent the passing of time in concrete forms varies across cultures. Ancient civilisations recorded the passing of time in relation to seasons or planets. Some civilisations still record the passing of time as circular and cyclic. In Western Europe time has been measured by in hours by clocks, in months by calendars and in years as linea, using time lines and the concept of BC and AD. The Islamic system measures time from an event in the life of Mohammed. The Term Common Era (CE) uses non -religious terminology. Recording the measurement of time requires, not only historical knowledge but also skills of numeracy, literacy data handling and information processing skills.

B What chronological skills can we expect primary school children to learn and how can we teach them?

Until the later decades of the last century children's capacity for chronological understanding was thought to be limited. However, what children can achieve depends on the amount of historical knowledge they have, on the ways in which they have been taught, on their general ability and their motivation, so research findings, which vary depending on the time in which the research was undertaken, can only be regarded as a guide. Booth (1994) and others found that children's thinking about time depended not on maturation but on, for example, teaching strategies, familiarity with the material, relevant experiences and interaction with other children. Recent research (Hodkinson (2003a) suggests that children remember more of what they are taught in history if they have an efficient chronological framework within which to place, store and retrieve what they have learned. Hodkinson set out to show that it is the design of the curriculum, focused teaching methods and resources which challenge and progress children's understanding of time, irrespective of such variables as intelligence, reading and mathematical ability. Hodkinson's research (2004) involved 129 8-10 year olds. Over three terms a 'treatment group' and a control

group studied their locality, the Victorian era and the reasons behind invasions and settlements of Britain. 'Treatment group ' pupils were encouraged to work cooperatively within activities which enabled open-ended discussion and temporal vocabulary. Activities sought to promote temporal concepts at increasingly complex levels. Historical material was also presented from time present to time past and time lines were used consistently in every lesson. Specific skills-based activities were also introduced at the beginning and end of each lesson. Although the 'treatment group' developed greater chronological understanding than the control group Hodkinson admits that in the 'treatment group there was less time for developing other aspects of historical thinking.

Charlotte Mason (1864-1923)

the learning. The process also raises interesting questions about some events having precise dates, some changes being rapid, other developments occurring over a long and imprecise period, about causes and effects and who may or may not have affected, about the benefits or problems of changes. Groups constructing different time lines illustrating different aspects of change, selected to raise questions about the period studied, using the same scale (perhaps events, technological, children, dress, growth of towns, food, transport, in a topic on the Victorians) could display them above each other to help to promote such discussion. Time lines should become more complex and thought provoking as children mature using different scales and information. Bearing in mind recent criticism of children not having 'the big picture' it is important to relate time lines within periods with timelines across a continuous span of time, maybe around the school hall. This could obviate Lello's fear that time is recorded in artificial boxes; what remains unchanged across historical periods?

Time trails are a recognised activity for helping children to develop a sense of chronology through contexts in their own experience. During a walk children identify and photograph buildings or features of buildings, then in school they can sequence the photographs and with maturity can place them on a time line.

B Change: causes and effects of changes; slow and rapid change

Bage (1999) explored ways in which narrative interpretations of the past can be used to develop children's historical understanding, if children are encouraged to criticise rather than copy stories. He suggests, for example, that the story teller plans to suspend the story at points, in order to discuss motives and causes of decisions and to discuss moral issues. This makes the story motivating, forward looking and meaningful.

The CHATA project investigated the development of children's understanding of cause and effect in detail. For example, Lee (Lee et al. 2000) shows how children's ideas about explanation in history depend on their understanding of the situation the person was in, on knowledge and on 'historical imagination'. People in the past sometimes appeared to do weird things and it is not part of everyday understanding to assume that these make sense. All 320 children, aged between seven and fourteen, were able to offer rational explanations of why the Roman Emperor Claudius invaded Britain. There was progression in their explanations from simply, 'because he wanted to get the gold and silver,' at eight years old to a recognition of his public role as emperor at ten years old: 'He wanted more people to like him; 'He wanted to take over other countries of the world'; 'to be better than Julius Caesar'. At eight years old

nothing puzzled the children about Claudius' motives, whereas at ten years old some children argued that he could, for example, have 'stayed at home and had a better life'. By twelve years old pupils were beginning to see that his motives were not confined to personal wants or on what to do as emperor, but also considered the situation he was in. 'He was at peace and had spare soldiers; not all British tribes were friendly with the Romans'.

Since we live in a rapidly changing world it is important that children learn to consider how and why things change in order to cope with changes in the world around them now and in the future, perhaps eventually to be proactive in supporting some changes and resisting others

B Duration

Understanding duration, how long situations or periods lasted, helps children to understand a sense of period, to see close and distant relations between events. It enables children to calculate, for example, lengths of reigns or of wars

B Contemporaneity

Events which occur at the same time, in different localities or parts of the world can be easily represented by parallel time lines, showing that changes in different parts of the world may vary – or coincide, or occur at different rates – and raise questions about why.

B Flashback

Many books, (for example John Burningham 1992; Sendak 1970) and television programmes (for example Dr. Who), involve 'playing with time', or time-travel, through flashbacks or parallel stories. These rely on a strong innate sense of chronology which quite young children appear to have.

A Skills needed to develop chronological understanding

B Number skills

The ability to apply chronology in asking and answering historical questions depends on number skills (Hodkinson 1995, 2004). Young children need to be able to sort photographs, pictures and artefacts into sets, (old/ new; now/then;) and later to make Venn diagrams (old/new/ could be either) in order to answer questions increasingly complex questions about time and change, similarity and difference and why they think so? At appropriate levels older children need to be able to read, write and order numbers, to count on and back on a time line, to add and subtract. Older children should understand positive and negative numbers, BC and AD.

C Measurement and scale

Older children need to understand scale. They might create census data into bar charts, spread sheets or line graphs which explore and illustrate slow, and rapid and gradual changes. They may read and interpret changes between numbered divisions on a time line or a graph.

B Calculation skills

C Data handling and Information technology

Large amounts of information, for example on census returns, can be analysed using data bases. Correlation may be discovered between changes in occupations in a locality and population growth or ages of death in different areas compared, all of which can be linked to maps, newspaper information and other sources to build up an understanding of causes and effects of changes over time. Other statistics concerning change include those referring to and birth and death rates, immigration and emigration, enclosure, imports and exports, height and weight (of people or cattle!)

B Information Processing

Deriving information from a time line in order to solve problems involves information processing. This is important in order to make links and connections between events and to investigate causes and motives. Levstik and Pappas (1987) argue that it is not children's historical concepts which are limited but their skills in information processing.

C Language Skills

In solving problems about chronological sequence children need to understand past tenses (it was), causal connectives (because, therefore), temporal connectives (when, while, during) and probability language (perhaps, I think, maybe). Hodkinson (2003, 2009) argues that since linguistic phrases such as 'a long time ago' are subjective and can be interpreted in many different ways children should be helped to progress to more precise language (before x; after y, at the same time as z). Some time vocabulary needs to be specifically taught (duration, span, era, age, period, decade, century,

millennium), if children are to be articulate about what they deduce and infer from time lines.

Children can also construct their own chronological narratives, as picture stories or chapters in a book which recreates a real story about the past or life of a real individual, possibly even writing in flashbacks or contemporaneous stories. Narratives need to be based on evidence and might be reconstructed through drama.

C Questioning and discussion

Questions, both child initiated and teacher initiated, are very important in enabling children to work out and to discuss their interpretations of time lines. This allows them to justify their conclusions –and maybe have them challenged, and so promotes their thinking and internalises their learning.

Because of all the variables discussed it is not possible to be precise about what we can expect of primary school children in chronology so the following figures can only be regarded as a rough guide as to what children may be expected to do by eleven years old.

Table 4.1 A guide to expectation in children's chronological understanding by the age of seven, based on HA...

Insert Table 4.1

Table 4.2 A guide to expectations in children's chronological understanding when they leave primary school.

Insert Table 4.2

Putting it all together

The three strands of historical enquiry have been discussed in turn but they are, of course, not discrete. Nevertheless on strand may be the focus of a particular enquiry. The following chapters consider how the history curriculum may be put together in practice through whole school planning, medium term planning and lessons planning, in ways in which assessment is an integrated part of planning and which

are differentiated and cyclical in order to progress pupils' knowledge and thinking in history.

Sources for developing chronological skills

Chronology, E-PCD Historical Association <u>www.history.org.uk</u>; <u>This resource offers</u> <u>many examples of strategies for teaching chronology in the primary school.</u>

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