

Introduction

The new National Curriculum has a core principle: pupils should study fewer things in greater depth. It is what is known as a 'mastery curriculum'.

However, when looking through the content of the curriculum, it may not feel that it contains fewer things especially when looking at maths and English. The programmes of study run into thousands of aspects, leaving many asking, 'How do we even get through the breadth, never mind the depth?'

There is a solution: *Learning without Lessons*.

This new and exciting creation by Chris Quigley has been described as 'a learning revolution', and 'a chance to make the curriculum both manageable and magnificent'.

A mastery curriculum

The National Curriculum is a mastery curriculum: that is, one whereby pupils have goals (attainment targets) to meet by the end of a key stage. Pupils should repeat the content as many times as possible across the key stage and gradually deepen their understanding. 'Mastery' is, therefore, not a style of teaching or a standard to meet. It is a concept of gradual deepening of understanding. The aim is not to 'achieve' learning in a lesson as if this is a final destination. Instead, pupils should have multiple opportunities to return to content, over time, in order to gain a growing developmental understanding.

Learning without Lessons helps schools to meet the aims and purposes of a mastery curriculum. It has four principles based on an understanding that learning happens over time not in a single lesson and that lessons are just part of the process of learning in which pupils' understanding is nudged forward towards 'end of key stage' goals. The four principles are:

Learning won't
be 'achieved'
in a lesson.
Understanding will
be 'advanced'.

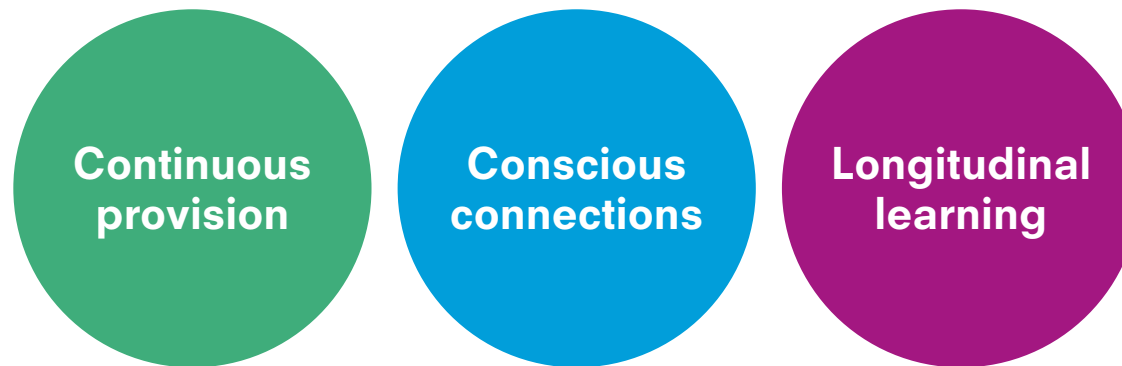
Lessons may
have multiple
objectives.

Objectives will
be repeated
multiple times
so that pupils
understand.

Not all aspects
of the curriculum
will be 'taught'
but pupils will,
nevertheless, learn
all they need to
learn.

How is the resource organised?

Learning without Lessons is a resource for primary teachers which is organised into subjects. Each subject is split into three sections that outline strategies to promote learning as an alternative to individual lessons. The three strategies are:



- **Continuous provision** shows how content can be organised to provide ongoing opportunities for pupils to learn.
- **Conscious connections** shows how several aspects of the curriculum can be learned at the same time. This includes links between subjects (cross-curricular) and within subjects (intra-curricular).
- **Longitudinal learning** shows how pupils may take their time to learn the things that matter across a much longer period of time than a lesson, perhaps even a whole key stage.

Notes on longitudinal learning

Teachers are well aware of pupils' lack of retention of learning. Pupils are introduced to a concept, practise it and become seemingly fluent in its application ... but then they go home for the weekend. When they arrive back in school the next week they seem to have absolutely no recollection of what they did the previous week.

This is because they didn't 'learn' it in the previous week. They were introduced to it. Learning takes much longer and requires multiple re-visits in a range of diverse contexts. The attainment targets of the National Curriculum don't expect fluency in the matters, skills and processes outlined in the Programmes of Study until the end of the key stage.

The longitudinal learning activities in this resource are designed to help pupils to revisit ideas and concepts in a variety of situations and to slowly develop an understanding over time. We recommend that pupils repeat the curriculum as many times as possible, in as many different ways as possible so that they develop a gradual and developmental understanding of knowledge, skills and behaviours.

Progress in a mastery curriculum

Progress in a mastery curriculum may be defined as 'the gradual widening and deepening of the knowledge, skills, understanding and behaviours required within the subject discipline'.

To widen means to increase the amount of content pupils have covered and to deepen means to increase understanding.

This resource uses a progression framework developed by Chris Quigley Education in 2013 called B.A.D cognitive domains. Pupils may have a Basic, Advancing or Deep understanding of curriculum content as characterised by the features in the table below.

Cognitive domain	Type of thinking	Types of activities
Basic	Low level cognitive demand. Involves following instructions.	Name, describe, follow instructions or methods, complete tasks, recall information, ask basic questions, use, match, report, measure, list, illustrate, label, recognise, tell, repeat, arrange, define, memorise.
Advancing	Higher level of cognitive demand. Involves mental processing beyond recall. Requires some degree of decision making.	Apply skills to solve problems, explain methods, classify, infer, categorise, identify patterns, organise, modify, predict, interpret, summarise, make observations, estimate, compare.
Deep	Cognitive demands are complex and abstract. Involves problems with multi-steps or more than one possible answer. Requires justification of answers.	Solve non-routine problems, appraise, explain concepts, hypothesise, investigate, cite evidence, design, create, prove.

Basic, Advancing and Deep are *not* ability groups. The terms refer to a pupil's current understanding only.

How to use this resource

The purpose of this resource is professional development for teachers. The introduction alone contains many ideas worthy of professional debate, notably the difference between 'learning' and 'lessons' and the idea that learning takes time and may not be 'achieved' in a lesson. The ideas for conscious connections, continuous provision and longitudinal learning should be seen as practical examples to help teachers to consider how best to organise their curriculum.

We suggest schools experiment with a balance of formal lessons, continuous provision and longitudinal learning topics to see which are most effective in the context of their school.

Most subjects in the curriculum are included but we have not included English. This is because most teachers already consciously plan for connections for reading and writing across the curriculum as it is a well-established practice in primary education. We hope to take some of the principles of this approach into the other subjects included in the resource.

On the CD

A CD accompanies this resource which contains an electronic version of all of its printed content. It may be stored on multiple devices and is for use in a single site only. Schools that have more than one site and groups of schools must purchase a separate copy of the resource per site. The contents of the CD must not be accessed through the school's website.

Curriculum content in Key Stage 1

Working scientifically

Across all year groups, pupils should gain the knowledge and skills within each area of science through a predominantly 'working scientifically' approach.

Biology

Plants

- Identify, classify and describe their basic structure.
- Observe and describe growth and conditions for growth.

Habitats

- Look at the suitability of environments and at food chains.

Animals and humans

- Identify, classify and observe.
- Look at growth, basic needs, exercise, food and hygiene.

All living things*

- Investigate differences.

Chemistry

Materials

- Identify, name, describe, classify and compare properties and changes.
- Look at the practical uses of everyday materials.

Physics

Light*

- Look at sources and reflections.

Sound*

- Look at sources.

Electricity*

- Look at appliances and circuits.

Forces

- Describe basic movements.

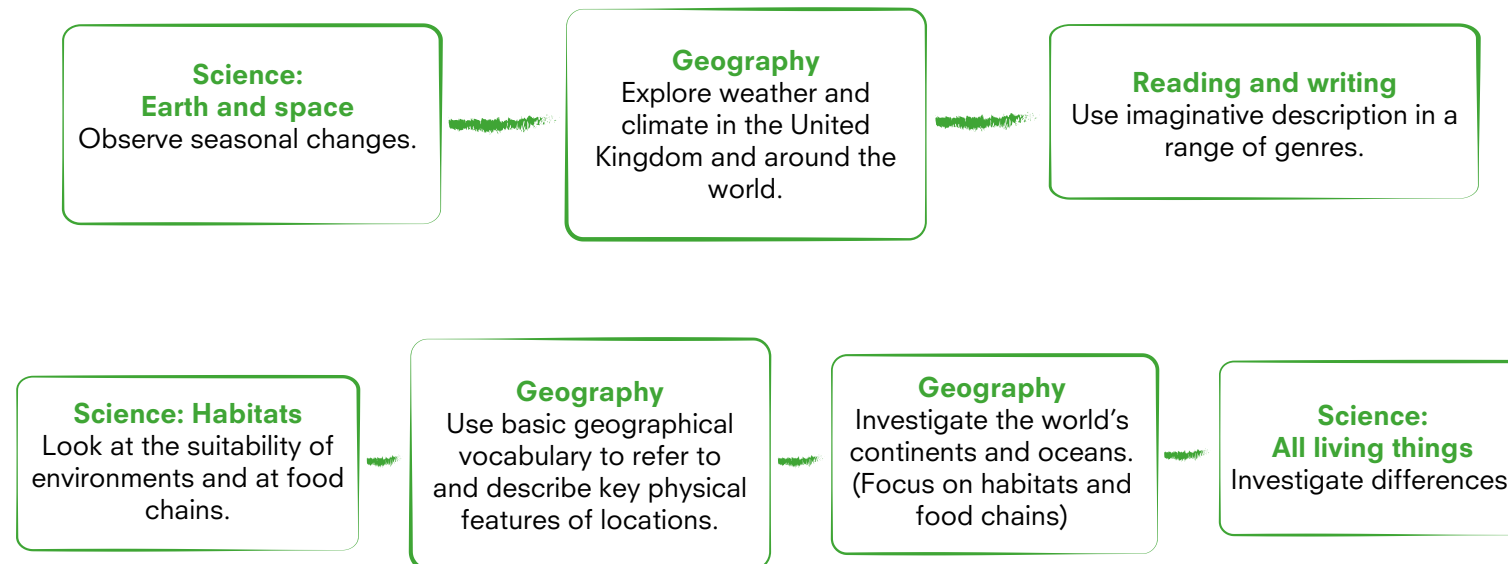
Earth and space

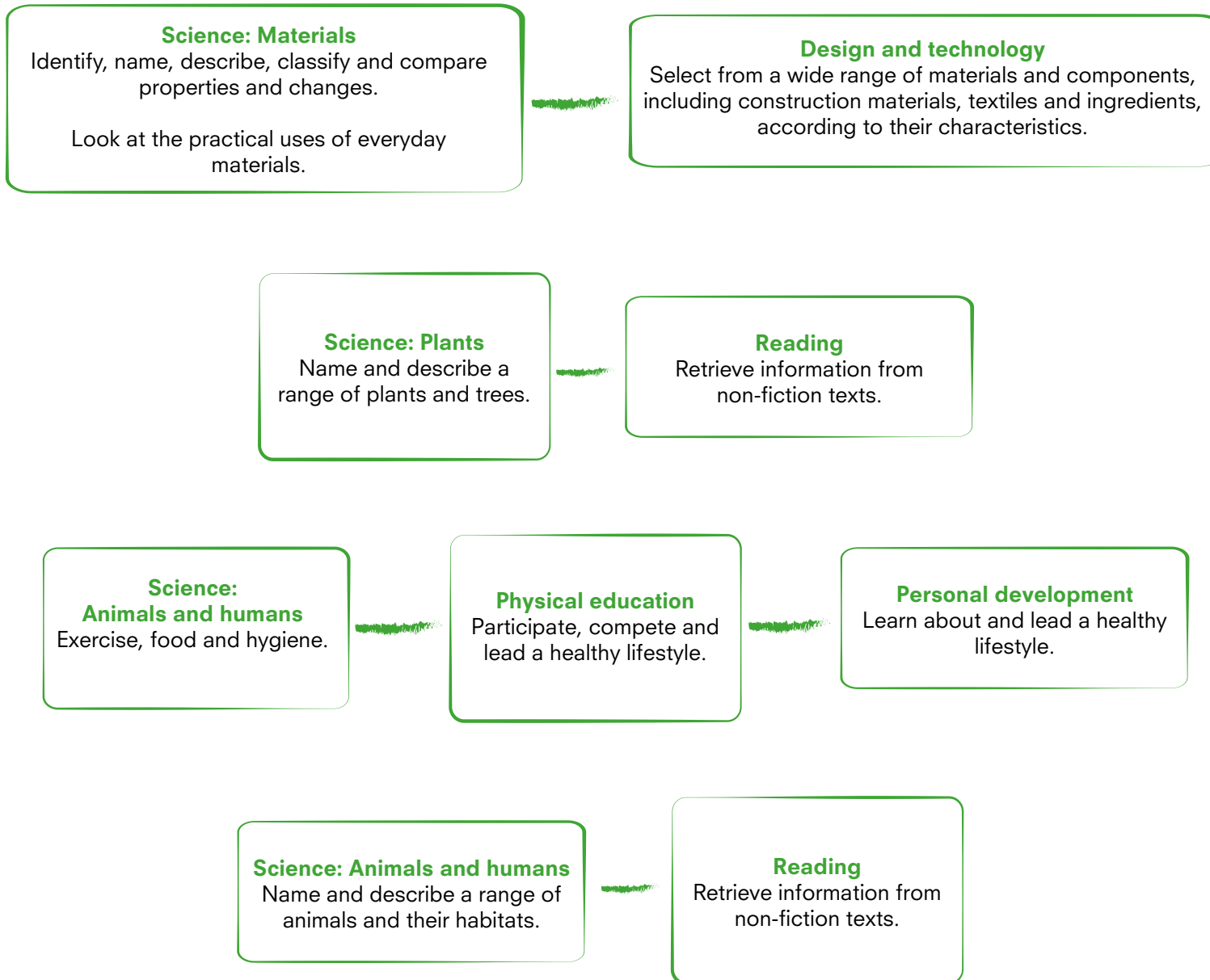
- Observe seasonal changes.

* These items are not statutory in the National Curriculum but form part of the progression in understanding in the Chris Quigley Essentials curriculum.

Conscious connections

Making connections between science and other subject areas means that pupils can benefit from a more connected learning experience and a large amount of curriculum time is saved. Here are six ideas that show how conscious connections may be made between science topics and other subjects:





Longitudinal learning

Name that tree



In this ongoing challenge, pupils match the names of common trees to their picture or to their leaf shape.

As time goes on, introduce trees found on other continents. Pupils should classify the tree as deciduous or evergreen.

As an extension to the activity, pupils could create a game 'Which tree am I thinking of?' They play in pairs. Pupils think of a tree and their opponent asks ten questions to try to guess the type of tree.

Learning Objective(s):

- To work scientifically
- To understand plants

Milestone standard(s):

- Ask simple questions.
- Observe closely, using simple equipment.
- Identify and classify.
- Identify and name a variety of common plants.

How to organise this activity

A number of options are available, such as:

- During **unstructured time** when pupils select an activity of their choice.
- **Homework.**

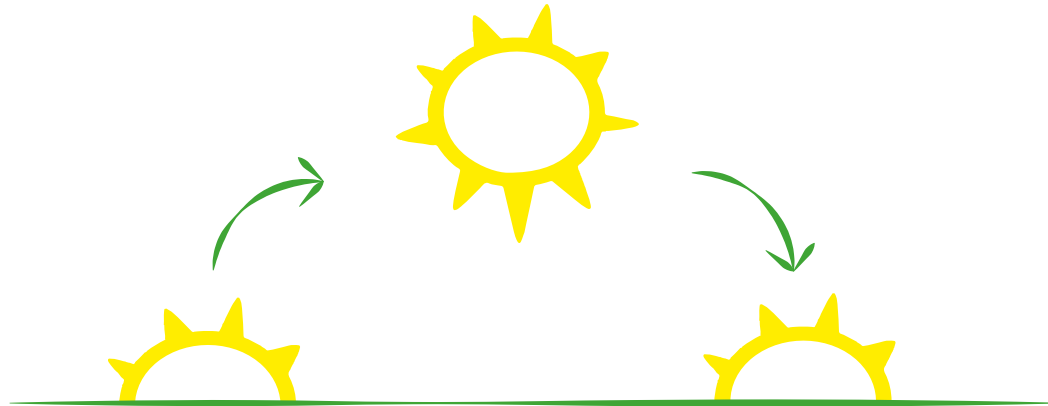
Learning in depth

To increase the cognitive demand posed by this task, use the ideas in the table below:

Basic	Advancing	Deep
Pupils match trees to their name.	Pupils identify trees from either their pictures or from clues. They also describe whether they are deciduous or evergreen.	Pupils devise clues for others to guess the tree type. They describe the locations they are most likely to be found and relate their descriptions to their geographical knowledge of countries and continents.

Longitudinal learning

How long is a day?



In this ongoing challenge, pupils keep track of the sunrise and sunset times throughout the year.

Of course, they will learn that the length of a day is 24 hours, but in this challenge they also calculate the length of daylight to the nearest 15 minutes.

This activity provides a **conscious connection** to **mathematics: time** and **science: observe seasonal changes**.

Learning Objective(s):

- To work scientifically
- To observe seasonal changes

Milestone standard(s):

- Ask simple questions.
- Use observations and ideas to suggest answers to questions.
- Gather and record data in order to answer questions.
- Observe changes across the four seasons.
- Observe and describe weather associated with seasons and how day length varies.

How to organise this activity

The best way to organise this activity is:

- **a weekly ritual** during which you keep a record of the sunset and sunrise using websites or newspapers.

Learning in depth

To increase the cognitive demand posed by this task, use the ideas in the table below:

Basic	Advancing	Deep
Pupils read and note the sunrise and sunset times. With support, pupils calculate the duration of daylight.	Pupils read and note the sunrise and sunset times. They use mental or written strategies to calculate the duration of daylight. Pupils begin to make connections between the duration of daylight and the seasons.	Pupils reason scientifically about the relationship between the duration of daylight and the seasons. They make scientific statements, such as 'The longer the daylight, the warmer the weather.' They also provide suggestions for anomalies, such as a warm day in winter.