

15 Planning across the curriculum

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As you become more confident in both your planning and your teaching you will move from planning individual lessons to planning sequences of lessons. It is unlikely that you will be involved in longer-term planning during training as many schools will provide you with the long- and medium-term planning already in place. However, you will be expected to contribute longer-term planning in your induction year and it is important to understand how curricula are put together. It is also important that you develop your own personal philosophy about how the curriculum is developed so that you can begin to put in place some of the principles of this in your own planning.

The planning process

In Chapter 1 we looked at the structure and requirements of the national curriculum and how developing a philosophy of education underpins the development of a school curriculum. It is useful to return to this concept when considering how schools plan.

Most schools will have four stages in planning their curriculum.

- Policy development.
- Long term.
- Medium term.
- Short term.

Each of these stages leads to the next and each is important. They may be called different things in different schools but essentially the process is the same.

Policy development

This stage is the one which most defines and reflects philosophies of education. Schools have policies on all sorts of things from assessment to financial procurement and each of these defines the rationale behind an approach and, often, the approach itself. They will often be developed by key people in consultation with other stakeholders, including local authority representatives, advisers, governors, parents and children, and should be reviewed and updated regularly.

Policies will usually reflect the 'ethos' of a school and define what makes it distinctive. Consider the schools you have been into. What were your first impressions? Did the school portray who and what it is from the moment you walked in through the door? What kinds of schools would you like to work in (and not work in) and why? Often these very instinctive impressions are based on the ways in which the school portrays its philosophy of education and how easily your own philosophies can relate to this.

Although it may be named differently in different schools, each school will have a policy for the curriculum. It will outline how the curriculum is organised and why. Some schools choose to have a very subject-specific curriculum while others combine subjects into a more thematic approach. Others will have a combination of the two with some subjects, particularly English and mathematics, taught separately and other subjects being put together in themes or topics.

In recent years there has been a move to a more 'creative' curriculum. This is interpreted differently by different schools and varies from a very thematic or cross-curricular approach to children determining what it is they want to learn. Chris Quigley (see further reading) defines a creative curriculum as having three overall aims, which are that it:

- has clear educational purpose;
- is delivered with imagination;
- has measurable educational value.

The aims and requirements of the national curriculum reflect this, encouraging schools to go beyond the statutory requirements and develop a curriculum which is broad and balanced and driven by the needs of children, the local community and the values of the school. There is scope for schools to develop concepts, skills and attitudes and for these to help define the philosophies and ethos of a school and its educational purpose. This is important as it encourages children to see the relationships between subject areas and to use learning in a more holistic way. Some critics argue that children need to know what subject they are learning in order to make sense of it and there is some truth in this, but there are also some skills and areas of knowledge which permeate all learning and there are risks in trying to compartmentalise ideas. The creative curriculum does not advocate 'losing' subjects within a thematic approach but, rather, encourages schools to consider how relationships between areas of learning in specific subject areas can enhance the potential of the curriculum offered.

A creative curriculum should be flexible, able to adapt and respond to emerging needs and new agendas. It should use contexts which are real to the children in the school and reflect their interests and expertise. It should engage children in a love of learning and allow them time to explore new ideas and develop deep understandings.

Central to these ideas is that any curriculum should enable children to make progress; therefore the value of any curriculum should be measurable. This will require schools to develop outcomes which go beyond the parameters of the national curriculum programmes of study.

Long-term planning

Once the philosophical approach to the curriculum has been established then the school can move forward in putting this into practice. The first step is possibly more logistical than the following two in that it organises the content of the curriculum into subjects or themes and decides which year groups will do what in which school term.

Some themes are particularly easy to place in that they require a specific year or time of year, access to resources or off-site environments or booking of outside visitors or visits out. Others can be more flexible and take account of the need to spread demand for specific resources, teachers or rooms across the academic year. However content is organised, schools will want to map curriculum content to ensure that they are delivering the statutory programmes of study from the national curriculum at relevant points and that the organisation of content encourages progression.

Medium-term planning

Often called a scheme of work, medium-term planning usually covers a sequence of lessons lasting a period of time (e.g. a half term) or a theme or topic. Plans may focus on one subject area only or include a number of different subjects where they fit naturally together (e.g. a topic on houses may draw on science, design and technology, art and design and mathematics). It is important that intended learning is made clear at this stage as medium-term plans should show progression by demonstrating the way each area of learning is developed. They should also give an indication of the teaching approaches and assessment strategies used and are a good way of evaluating whether you are providing opportunities for the different needs within your class. It is also useful to identify key vocabulary and note resources, particularly those which need to be prepared or booked in advance. This may include booking specific places in the school environment, such as the hall, or even off-site visits.

Medium-term plans should reflect the same principles as those outlined in both Chapter 2 and the subject-specific chapters within this book. There are some examples provided at the end of this chapter to help you develop creative approaches which have the benefit of enabling learning in a range of subjects within one longer-term focus.

Short-term planning

These plans are more detailed and specific. They may cover a single lesson or, if a learning objective or activity is more long term, may cover a specific period of time. You should refer to Chapter 2 and the subject-specific chapters from this book to construct your short-term plans.

At first your short-term plans are likely to be very detailed. This is important as beginning teaching can be stressful and you are likely to forget key inputs. As you become more experienced your short-term plans will become less detailed and you may find more experienced teachers work mainly from plans which are more medium term. It is common for English and mathematics plans to be weekly rather than daily, reflecting the longer-term nature of the intended learning.

The creative curriculum: some examples

The following examples are designed to inspire your own ideas of how to put an exciting, broad and balanced curriculum together which will stimulate children's interests

and support their learning across a range of subjects. However, there is a note of caution here. When planning in a cross-curricular way it is easy to get carried away by the 'fun' aspects and forget the key point of the curriculum: learning. Make sure you only put subject areas together which fit within the learning aims of the theme. Ensure you can justify how the learning from one subject area supports or enhances learning in another and be explicit about the links between the skills, knowledge and understanding drawn from each subject. Make these links clear to your children; remind them that they are using a range of ideas drawn from different disciplines so that they may make sense of this and continue to develop these in their future learning.

Natural sculptures

Year group: Key stage 1

Subject foci: Science, art and design, geography

Children could begin to explore a local outdoor environment and consider what plants grow there. They could map out their findings, building up a profile of the habitat and beginning to identify and name common plants found. They could look at how nature can be represented through art and consider the work of Andy Goldsworthy in creating their own natural art. Through this they could explore characteristics which enable us to group and classify plants and describe basic structures. This could lead to large-scale art by covering parts of the school field with shapes of black plastic (e.g. the centre and petals of a large flower) for around a week. This will make the grass turn yellow and leads into thinking about photosynthesis as well as making striking art.

Seed germination

Year group: Key stage 1

Subject foci: Science, art and design, design and technology, English

In this activity children research how best to germinate seeds (large seeds such as broad beans work well with this age group). Once the enquiry has been completed children should design a seed packet and write instructions as to how best to germinate the seeds. This activity can be extended by growing plants the previous year and collecting the seeds for sale in the spring. (Sunflowers, tomatoes and broad beans all work well for this.) This provides an opportunity for children to market their seeds and work out costings, bringing mathematics into focus.

Buildings around the world

Year group: Key stages 1 and 2

Subject foci: Mathematics, English, geography, design and technology

Using the picture book *My House Has Stars* by Megan McDonald and Peter Catalanotto, children explore different housing designs from around the world. They re-build and draw them and look for the similarities and differences in the geometry within them. This could also move into looking at architecture around the world, particularly the mathematics to be found in ancient buildings such as the Acropolis.

Weather

Year group: Key stages 1 and 2

Subject foci: Mathematics, science, geography, English

In this activity, children create a class weather station and, in groups, collect data about different aspects of the weather over a period of time that can include measurement of temperature and rainfall. They then collate that data and represent it in different ways, agreeing on how best to represent the data in order for it to be interpreted easily by the rest of the class. They can then write and perform weather reports for the school based on what they've found out and their subsequent predictions.

Maths from stories

Year group: All ages

Subject foci: Mathematics, English, and potentially every other curriculum subject, depending on the book

There is a rich vein of cross-curricular mathematics work to be tapped in the form of picture books for all ages. A comprehensive bank of these can be found at Books Kids Love: www.the-best-childrens-books.org/math-for-kids.html. A couple of good ones to start with are *One is a Snail, Ten is a Crab* by April and Jeff Sayre, and *365 Penguins* by Jean-Luc Fromental.

Roman market place

Year group: Key stage 2

Subject foci: Mathematics, history, English, design and technology

In this activity, children work in groups to create a market stall for a Roman market. They research the kinds of items that would be bought and sold on a typical market stall and make trays and products to sell. They use Roman numerals to label the price of their items and design their own money and devise calculation systems in order to charge and pay for them. Finally, they can create posters to advertise their market to potential customers.

Islamic art

Year group: Key stage 2

Subject foci: Mathematics, art, RE

In this activity, children explore the 2D and 3D shapes, symmetry, tessellation and tiling inherent in Islamic design. The symbolism of the shapes and patterns can be researched and leads to understanding of some of the fundamental concepts of Islam. A good starting point is the V&A website, accessed at <http://www.vam.ac.uk/content/articles/t/teachers-resource-maths-and-islamic-art-and-design>.

The X-factor

Year group: Lower key stage 2

Subject foci: Music, science, design and technology, computing

Children could start by considering the ways in which music is made through a variety of different instruments. Through studying these they could develop an understanding of vibration in sound production and consider how they could use this to change pitch and volume. They could use their emerging knowledge to make musical instruments to play. Using a computer sound recording program they could compose a piece of music and record each element separately. Children could then explore how recorded music can be manipulated to improve sounds and change pitch or volume. This work can be extended into thinking about recording studios and how they are constructed to both insulate sound and improve sound. For example, there are some artists who choose to record in certain studios because of the materials they are made from and the effects on the sound produced.

Marketing a 'des res' for a woodlouse

Year group: Lower key stage 2

Subject foci: English, science, computing, geography

This activity requires children to investigate where woodlice choose to live and then design an estate agent's details which might market a desirable residence for a woodlouse. The activity could begin by searching for woodlice in the school grounds and mapping where they are found. From this, children could develop a hypothesis about the conditions woodlice choose for their preferred habitat and devise an investigation to test this out. They could research the life processes of woodlice and relate these to the habitats in which they are found. Children could research estate agents' details to explore structure and language used and then use their findings to construct their own online or hard copy agent's details for woodlice choosing a new home.

Decorative tea light holder

Year group: Lower key stage 2

Subject foci: Design and technology, science, English, mathematics, RE

Children evaluate a range of tea light holders and then draw their own design which they will give as a gift. They will need to consider the likes and preferences of their chosen recipient – colour, shape, stability, amount of light emitted – before modelling their own design using salt dough. The dough can be left to dry naturally or baked in an oven to speed things up. Tea light holders can then be decorated according to the original design and subsequently evaluated. The activity can be used to support a festival such as Diwali, and as a teaching opportunity in science, looking at properties of light, and also properties of salt dough.

Candle-style night lights can be used; however, for safety considerations inexpensive electronic night lights are also readily available.

The force of the Egyptians

Year group: Upper key stage 2

Subject foci: History, science, design and technology, mathematics, physical education

In this activity, children will explore the methods used by the ancient Egyptians to build the pyramids. They will look at the architecture used, considering why structures were built in the styles and using the materials selected. They will explore how the Egyptians used their knowledge of forces, levers and pulleys to move the stones across considerable distances and place them in the building process and calculate the effects of using these approaches in reducing the forces involved. The children could also explore the effects of balance and opposing forces in physical education and experiment with alternative movements.

Making and marketing cookies

Year group: Upper key stage 2

Subject foci: Design and technology, mathematics, computing, geography, history, science, English

This activity works well with all ages of children but with upper key stage 2 children as ‘managers’ it lends itself to being a whole-school marketing project. Children can design, make and package cookies made to a variety of recipes, costing them and working out profit margins so that they can plan a coffee morning for parents, end of term assembly or perhaps a tea party at the local care home. They can collect and evaluate a range of packaging styles before deciding on their own – having considered their target users. They can use a YouTube clip to design and make their packaging, using their science knowledge to select appropriate materials – greaseproof, aesthetic appeal, theme of their work. They can use science to consider calorie values, healthy eating and dietary requirements (e.g. Coeliac disease) to vary recipes. They can also consider making their cookies from a history perspective (e.g. what ingredients/spices would have been available in Tudor times?), or from a geography perspective they could consider names and availability of ingredients in their chosen region of study. Throughout the project children will be using their speaking and listening skills to negotiate, evaluate and market their cookies.

Further reading

Quigley, C. *Planning a Creative Curriculum*. [online] Available at: www.teachprimary.com/learning_resources/view/planning-a-creative-curriculum