PRIMARY GEOGRAPHY

Focus on sustainability

Number 93 | Summer 2017

Geographical Association

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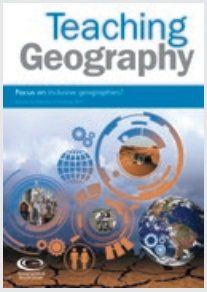
Expedition Greenland: learning about sustainability through the Vikings

Charles Rawding

In this article Charles gives advance notice of a free resource – online materials and artefacts to loan – aimed at developing a holistic approach to sustainability.



Coastal resilience and vulnerability: storm impacts, extreme weather and regional variability in the UK, winter 2013–14

Sue Brooks

This article highlights the how new technologies are being used to quantify some of the key coastal impacts of extreme storm events. The data collected support the unevenness of the impact of the 2013–14 storms on the shorelines at different locations around the UK. Enhanced forecasting capability and strengthened coastal defences meant that no lives were lost in 2013. However, future sea level rise and changing storm tracks may bring even greater coastal devastation; therefore, we need to be prepared to develop new strategies for forecasting, early warning and evacuation planning.

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Geographical Association

FORTHCOMING ISSUE

Autumn 2017: Focus on challenging geography

EDITORIAL

TESSA WILLY AND RICHARD HATWOOD

Tessa Willy. Photo © Tessa Willy.

Richard Hatwood. Photo © Tim Redgrave.

Sustaining geography: Living well, within our means

It has been a great pleasure to co-edit this issue of *Primary Geography* and share our understanding and values about what we both believe to be so important in pupils' learning. It has been in the nature of one of the essential components of sustainability, collaboration, that we have brought together our own and others' perspectives and beliefs to produce this collective issue and our thanks go to all the authors and contributors.

The essence of sustainability has shone through while co-editing this issue. In promoting sustainability through our teaching, we've been inspired to see the work that all members of the school community undertake to broaden pupils' horizons. Hearing the many opportunities to help build a more sustainable future for our pupils and seeing them in action has been a privilege.

Sustainability in schools has been perceived by many as being about our physical environment and protecting that for future generations. Eco-warriors, teams of keen young recyclers and green-fingered school gardeners have characterised sustainability in primary schools and proved to be engaging and successful for pupils of all ages. We have, however, seen the remit of sustainability widen; for example through the transition from the UN's Millennium Development Goals to the Sustainable Development Goals in 2015 (UN, 2015). As a result, schools have adopted many new initiatives. It has become increasingly clear that environmental sustainability cannot take place in isolation and is inextricably linked to other facets of sustainability, such as the economy, population, social justice, emotional well-being and perceptions of our future. All of these areas are deeply embedded in geographical philosophy and understanding, as the subject underpins the core nature of sustainability, making it our responsibility to sustain geography as a key component of primary school education through effective geographical research, pedagogy and practice.

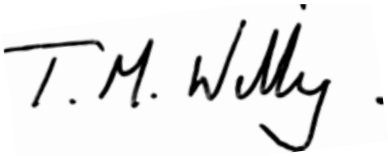
This issue of *Primary Geography* includes this wider, more inclusive and holistic, view of sustainability; one that is so eloquently articulated in the interview with Stephen Scoffham, the future President of the GA and Reader in Sustainability at Canterbury University. We celebrate primary school geography through stories about school gardens as described by Sam Woodhouse and the creation of future worlds and communities by Rose Eriksson and her class. Leanne Chorekdijan portrays the relevance and accessibility of sustainable issues in getting all pupils in her school engaged, and Rupert Brakspear writes about the importance of making connections with each other and our environment, both locally and further afield.

We explore in more detail the approaches for all schools to engage pupils in developing a deeper understanding of sustainability: Leanne Whitfield and Jemma Harries explore the perspective of a Special School in developing creative approaches to teaching about sustainability, and through Liz Rossall, Janie Pridham and Bryony Bromley we learn more about the huge array of opportunities open to schools to help build the profile of sustainability through the WWF, Size of Wales Project and Eco-Schools Programme. Eifiona Thomas Lane also shares an exciting and unique project undertaken to foster a sense of sustainability through community action.

The myriad ideas showcased here are just some of the innovative initiatives that exemplify how we are helping our pupils to live in a more sustainable world now and in the future. In an unpredictable, rapidly changing world, maintaining consistency and continuity will prove not only reassuring to pupils but also vital to being able to sustain a positive and productive relationship between ourselves and our nurturing and supportive environment.

Reference

UN (2015) *UN Sustainable Development Goals*. Available at: https://sustainabledevelopment.un.org/sdgs (Last accessed: 17.02.2017).

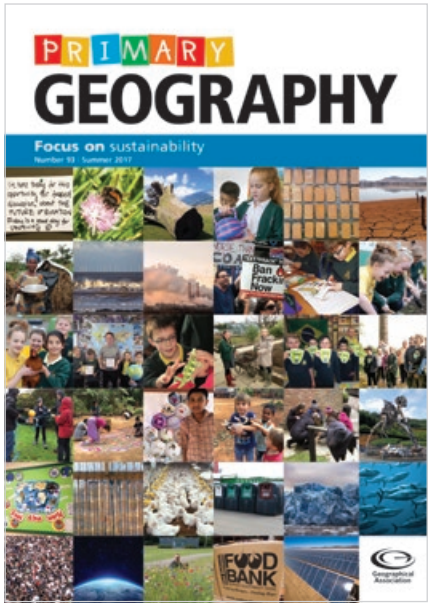


The start gallery

INTERPRETING SUSTAINABILITY

TESSA WILLY AND RICHARD HATWOOD

Tessa and Richard suggest some ideas for getting started with exploring different visions of sustainability.



Thinking about sustainability

Sustainability is a much-used term and can mean different things to different people. As well as encompassing issues about the physical environment and living within the means of our planet's resources, it is also closely associated with the complexity of concepts, values and social mores. Many sustainability issues, such as social justice, equality of access to resources, people's impact on the environment and natural habitats, can be controversial and may best be considered through discussion and debate (Catling and Willy, 2009). This allows pupils to explore their feelings about issues and think through their values, so developing their active citizenship.

Own thoughts

Show pupils the PowerPoint of the cover photographs (see web panel), which depict just some of the many, varied aspects of what we perceive sustainability to be, and ask the pupils to write down any words that they think of when they see each photo and then explain their choice of words to each other. When they have seen all the photos, ask what they think links them together and what they have in common, starting to establish some common ground in their understanding of some of the myriad issues and concepts.

Group discussion

The photographs could be divided up and given to different groups in the class: invite them to consider what the photographs are showing and to justify their thoughts to each other. Each group could then present their findings, and a whole-class discussion at the end of the lesson could consider what it is that links all the different concepts: sustainability, in all its different guises.

Sorting the issues

Give the photographs to pairs or groups and ask them to make up categories that they might be put into, such as the outdoors, energy, growing things, food, community, working collaboratively, etc., and to sort the photographs into their categories. They could then find other pictures or categories to add, and explain why they have included them. These could then be put up as a display, or a group poster, with the overall heading of sustainability and all the different categories that come under it to show the complexity and inter-relatedness of sustainability.

Annotating aspects

On the display or group poster, ask pupils to annotate individual photographs to show different aspects of sustainability, what the issues are and why they are important. The pupils could then relate these to their own lives, consider the ways in which they are leading sustainable lives and explore ways in which they could live more sustainably, at home, in school and in their local community, focussing on solutions and effective ways forward.

Deeper questioning

Ask pupils to think of questions of the photographs that they might want to explore and choose one of the questions that they could pursue as a class. This could help them to look into some of the challenging concepts around issues such as fracking, renewable energy and seasonal food, and to consider them from a range of different perspectives, removing the right/wrong, good/bad binaries and thinking instead of all their complexities.

Local perspectives

Use relevant photographs to instigate a debate about a particular local issue. Give the pupils background information and different roles to play, and encourage them to think from the different perspectives of those affected.

Such activities can help pupils come to an understanding of the complexity of the world around us and the importance of being able to perceive a range of challenging issues from a number of different perspectives, helping them to develop open and empathic minds underpinned by sound and reasoned values.

References

Catling, S. and Willy, T. (2009) *Teaching Primary Geography (Achieving QTS).* Exeter: Learning Matters.

WEB RESOURCES

Download a PowerPoint of all the photographs used on the cover: *www.geography.org.uk/pg*

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SUSTAINING PRIMARY GEOGRAPHY

TESSA WILLY

A key component in primary geography, maps bring meaning and purpose into pupils' learning. Photo © Bryan Ledgard.

In this article, Tessa highlights the importance of sustaining geography teaching in primary schools.

With an increasing focus on the core subjects and the use of topic work to teach the foundation subjects, the explicit teaching of geography can get overlooked. It is important, therefore, to make sure that we are doing all that we can to sustain and develop the subject in our primary schools. The quotations in Figure 1, taken from policy documents spanning the past 75 years, endorse the importance of the subject and remind us of its value. Try placing them into chronological order: it is not as obvious as it might seem! The answers are at the end of the article.

1. 'Even primitive peoples reveal some geographical understanding, for on this depends their ability to eke out a living and to survive in environments fraught with danger.'

2. 'Geography provokes and answers questions about the natural and human worlds, using different scales of enquiry to view them from different perspectives.'

3. 'Geography is one of the essential subjects in equipping the pupil to take his place as a citizen of the world. It creates an understanding of, and sympathetic interest in, the lives of other people, and an appreciation of the kinship and interdependence of the peoples of the world.'

4. 'A high-quality geography education should inspire in pupils a curiosity and fascination about the world and its people that will remain with them for the rest of their lives. Teaching should equip pupils with knowledge about diverse places, people, resources and natural and human environments, together with a deep understanding of Earth's key physical and human processes.'

5. 'Two fundamental conclusions of the greatest importance have been reached. The first of these is that local geography is indispensable because it alone can provide the basis in experience from which all other geographical work proceeds. The second conclusion is that life in other lands can best be made real to pupils by means of vivid, detailed, pictorial presentation of small unit areas. Underlying both is the basic educational principle that all geographical studies should be related to the interests and experiences of the pupils.'

Figure 1: Can you put these quotations from policy documents in chronological order?

There is a plethora of compelling arguments for teaching geography; yet, often, the subject is seen as one of the most challenging for many primary practitioners. This appears to be the case for several reasons, including:

- it is just one of 11 NC subjects, and that's not counting RE, PSHE, SMS and all the other curriculum demands being made on primary school teachers
- many teachers gave geography up at 14 years of age, thus they feel less confident about their subject knowledge, and there are those who did take it at GCSE, but still feel that they cannot remember very much about it
- there can be misunderstandings about what geography is. Ask pupils what they have done in geography or what they know about geography and they will often say 'nothing'. However, if you delve a little deeper, pupils will tell you in detail about places that they have visited and learnt about through the media and can convey their own stories of who they are in the world with a keen sense of geographical identity. Yet this is not always recognised as 'geography'
- the contents and concepts of geography can be obscured because it is often taught through topic work, which may contain great geography that is not always made explicit, and

- a paucity of specific geography input on many ITE programmes, compounded by a lack of ongoing professional development, especially in effective subject and pedagogical knowledge.

In the interests of providing a coherent curriculum and cultivating pupils' interest in, and their understanding of, geography, how might we overcome some of these issues?

- If you are a novice teacher, try to make the most of the resources that are available on your course and keep them for future reference. Take advantage of the good rates of student membership of the GA, use the library and engage with your tutor and peers to develop and deepen your understanding. Participate in as much geography teaching and learning on school experience as possible, observe others teaching it and take any opportunity to plan, teach and evaluate it yourself. Ask for a meeting with the geography subject lead/co-ordinator, read the school policy and planning, and be acquisitive!
- Join the Champions Ning on the GA website (see web panel) – an excellent repository of ideas and a forum for the exchange of resources and ideas. Join your local GA branch, and if there is not one in your area then why not think of creating one. You will quickly realise you are not alone!
- When planning, try to make the geography learning objective explicit. Refer to the geography curriculum that you are using and ensure that you are assessing the pupils in your class using these objectives so that you can see their progress and adapt your teaching to address any misunderstandings. Try to plan collaboratively with other teachers in your school so you can share ideas and subject knowledge.
- Challenge yourself to do things that do not necessarily come easily to you – mapwork and GIS for example or developing fieldwork skills. Where appropriate learn from the pupils! You could observe someone else in your school teaching an area in which you are less confident or watch a related teaching video.
- Look for cross-curricular opportunities wherever you can. Teach English and maths in a geographical context. If writing a newspaper report, write it about a topical natural event, and if the pupils are improving their persuasive writing, debate a controversial issue. Pupil-led enquiries can produce a plethora of relevant and topical data for analysis and presentation, engaging pupils and giving meaning to abstract concepts. Maps can provide the perfect justification for practising co-ordinates, plotting and finding references, and bring meaning and purpose into pupils' learning.
- Consider your CPD and ensure that there is some geographical input within it; even if it is not directly part of your specific aims, it will help development of all curriculum areas. The GA and RGS-IBG run a range of courses and programmes. Your local GA branch may also offer appropriate after-school events, or you could attend the GA Annual Conference at Easter each year.
- Plan to teach geography at times when it has to be taught, not always at those vulnerable times, e.g. on a Friday afternoon.
- Keep reading and researching, and consider conducting an action research project with another member of staff. When possible, be research-informed as well as active; sign up to the Education Endowment Foundation for example, follow some of their free courses and use their evidence to inform your practice. Do try to keep up to date with what is happening in the geography education world; tweets are great in signposting research, but, like everything, these need to be read with a critical eye.
- If you become the geography subject lead, provide class teachers with the opportunities to develop their own skills by leading twilight sessions. Ensure that you offer a broad and balanced curriculum including plenty of geography and, if yours is an integrated curriculum, ensure that the geography learning objectives are clear and explicit and that all the pupils in the school know what geography is.
- As subject lead, consider the transition between the Foundation stage and key stage 1 and help teachers to make this as effective as possible. Where possible, develop effective links with secondary schools and try to organise for the pupils to go to a local secondary school or invite their geography teacher to come and plan and teach some sessions with your year 5/6 teachers. This could contribute to an effective transition programme between primary and secondary school (see pages 30-31 of this issue).
- If you have to leave teaching, ensure that your legacy includes a geographical one; perhaps you could offer to keep in touch with the school and share your adventures and possibly return to tell the pupils what you have done and where you have been. Achieving the Primary Geography Quality Mark would be an excellent and enduring legacy that would ensure continuation of high quality meaningful geography in your school.

There are myriad ways of keeping geography alive and thriving, and once the subject has a momentum it is much more likely to be able to sustain itself. It is important to make sure you are not the only geographer, because if you leave the geography goes with you. Your legacy must be to ensure that geography is embedded in the school ethos and the pupils' experience irrespective of your presence. Although of course it will always be better if you are there!

Answer to Figure 1

Did you get the chronological order of the quotations right?

3. GA, *c.*1942; **5.** GA, 1949; **1.** Marshall-Cornwall and Wooldridge, 1955; **2.** DfEE/QCA, 1999; **4.** DfE, 2013

Acknowledgement

Thanks to Margaret Mackintosh for finding the early articles quoted here.

References

DfE (2013) *National Curriculum in England for Key Stages 1 and 2: Framework document.* London: DfEE/QCA.

DfEE/QCA (1999) *The National Curriculum: Handbook for primary teachers in England.* London: DfEE/QCA.

Education Endowment Fund (2017) *Making Best Use of Teaching Assistants.* Available at: https://educationendowmentfoundation.org.uk (last accessed: 20/2/2107).

Geographical Association (GA) (*c.* 1942) *Suggestions for the Teaching of Geography: Pamphlet written by the Geographical Association Primary Committee.* Manchester: GA.

GA (1949) *Geography in the Primary School: A Report prepared by a special Sub-Committee of the Primary School Group and the Training College Group of the Geographical Association*. Manchester: GA.

Marshall-Cornwall, J. and Wooldridge, S. (1955) 'Geography in education', *The Geographical Journal,* 121, 2, pp. 190–96.

WEB RESOURCES

GA Champions Ning:
http://geographychampions.ning.com

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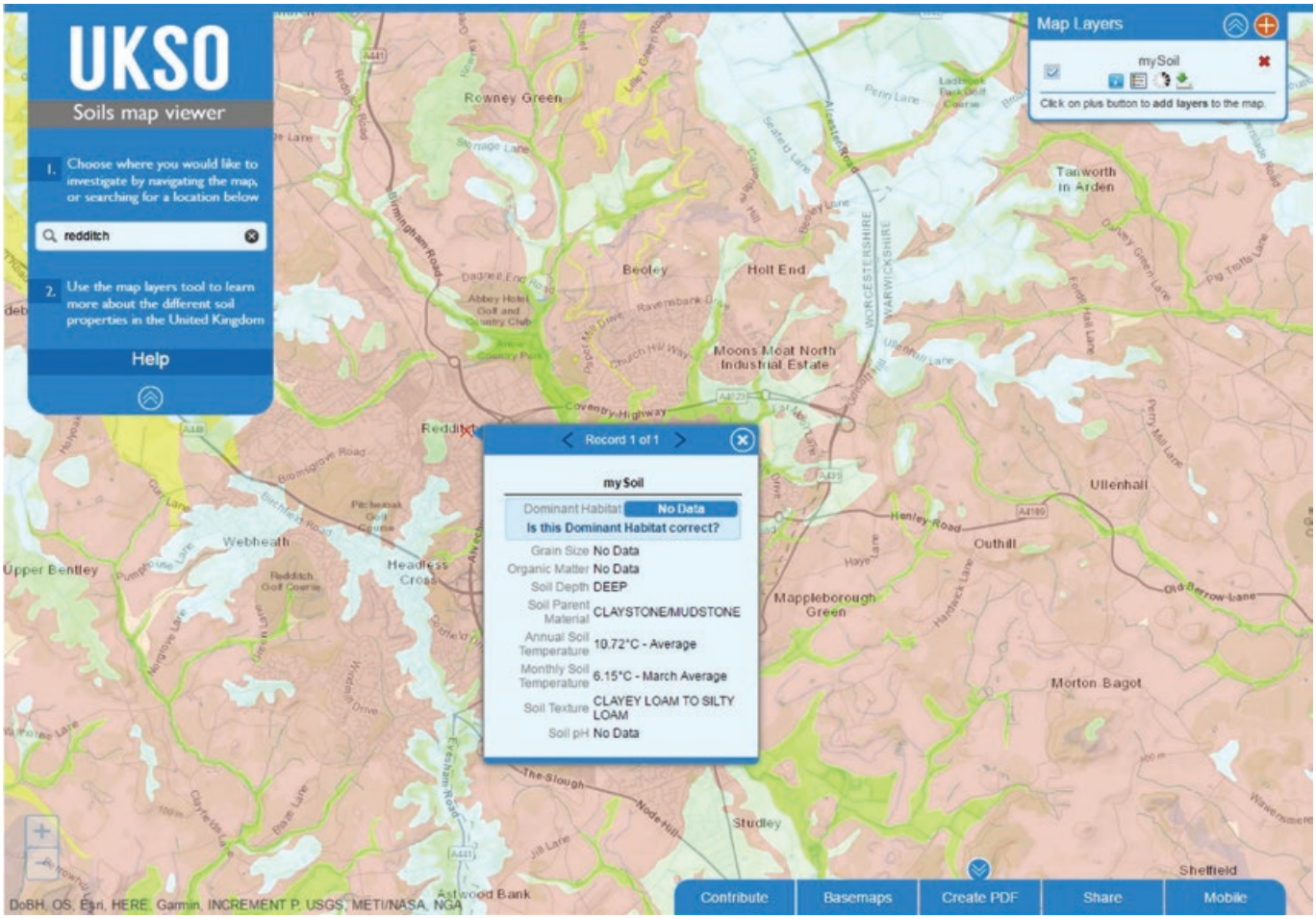
WHAT LIES BENEATH?

RUPERT BRAKSPEAR



A quick investigation on the UK Soil Observatory website indicated much of the town is built on claystone/mudstone.

Rupert reports on a project carried out with Woodrow First School in Redditch, Worcestershire, specifically aimed at developing closer links between science and a wider cross-curricular commitment to learning for sustainability through clay and soils.

Introduction

Writing in the fifth century BC, Heraclitus identified change as a constant feature of the universe. However, the current rate of change in our material culture and in our environment is unprecedented. It is not surprising that many of the processes involved in creating our world seem further and further from our direct experience. This alienation is a real challenge for educators.

The project

In late June 2015, I was invited to carry out the project with Woodrow First School. The school is a wonderful creative place of learning, with a focus on delivering a rich and varied curriculum through Mantle of the Expert – a 'dramatic-enquiry based' approach to teaching and learning. It also has an innovative, reciprocal partnership with the A M Qattan Foundation teacher exchange programme based in Ramallah, Palestine.

The school decided that they would like to develop one of the potential lines of enquiry introduced during an initial meeting with the staff: an investigation of the red clay on which the school and town of Redditch stands. The two year 3 class teachers agreed to take up the challenge in the early autumn, and committed themselves to feeding back to the rest of the school by sharing some of the skills and knowledge learned.

The school's curriculum development team decided to use the forthcoming investigations to develop the pupils' knowledge and understanding of place as well as of clay as a material. This was part of a science project that would:

- incorporate a strong sensory, haptic experience (i.e. one developing a closer connection or understanding of something through touch) of the soil/earth beneath our feet
- link to the wider theme of shelter, and through this promote discussion around choices we need to make as a society concerning our core needs. This included sourcing raw materials and the processes involved (e.g. extraction, transport, manufacture, links to energy sources) – i.e. a series of links to sustainability.

An immediate direct connection (and a logical starting point) was the name of the town – Redditch, or red ditch – and

the opportunity to develop the pupils' sense of place by looking at place names and their possible meanings (Redditch has some great local place names – Woodrow, Headless Cross and Moons Moat, to name a few). A quick investigation on the UK Soil Observatory (UKSO) website or mySoil app reinforces this link (see web panel). This indicated that the school and much of the surrounding town are built on claystone/mudstone. Indeed, many buildings in the older part of town have been constructed using red bricks.

The theme of shelter can be such a powerful and exciting one to work on with this age group, it can be used to build recognition and identification of the similarities and differences between the vast array of structures that we call home (i.e. exploring the human characteristics of place – as specified in the National Curriculum Place Knowledge at key stage 2). There are also some great picture books (highly appropriate for years 1-4) that link to this theme, such as the beautiful *Home* (Ellis, 2015). The project, therefore, had strong elements of science and geography and lent itself to other aspects of the curriculum such as English (both oral and written), mathematics (weighing the clay into equal portions and measuring the difference in weight and size before and after drying and firing), history and design and technology.

The outcome was to be a series of tiles, fired in a sawdust kiln (an old dustbin with holes around the bottom edge), which would echo not only the red roofing tiles of the historic buildings of the town, but a primary building material used across much of Palestine and the Middle East.

An additional outcome would be that I would turn our clay pit excavation site into a pond, thus providing shelter for wildlife. The outcome would provide opportunities for building:

- pupils' locational knowledge – where is the Middle East and Palestine?
- an understanding of physical and human geography – the building materials commonly used both in Redditch and the Middle East in ancient/biblical/Roman/Viking/Victorian periods and in the present day. How are these similar to/different from the materials used in buildings around us?
- an understanding of physical geography with links to science – focusing on habitat and the needs other living things have for shelter.

Digging in

On my first visit to the school, I dug a few trial pits; initially the results did not seem too promising. The clay material I reached (between 15 and 60cm deep beneath a compacted stony layer) was very hard, dry and crumbly. It would not pass the vital 'ring test' – for this you make a 1cm-thick sausage of clay and twist it around a finger to see whether it will not crack (this method is a rough indication of plasticity that helps potters identify whether a clay offers suitable potential/workability). However, the pupils were full of questions about 'treasure' (had I found any?), worms (ditto) and the soil itself. We retired to the classroom with some samples. Things began to look up: as we added a little water to the samples they became stickier and more plastic.

I took the samples back to my workshop and sieved them through a standard kitchen sieve. The result, after drying, was a wonderful plastic material that fired well up to 1000°C in my kiln. This gave me the confidence to move forward with a planned week-long project. We began with an assembly to capture the interest of the whole school: we used the framework of 'The Three Little Pigs' to explore the properties of straw, sticks and clay bricks for use as building materials (with a lot of huffing and puffing!) and introduce the concepts the pupils would be investigating.

The outcome

The project was successful in generating a lot of interest across key stages and in engaging the two classes of year 3 pupils. It built scientific and geographical knowledge around the nature of raw materials and the processes involved in transforming these into something useful. The pupils were involved directly throughout the process. They helped to test the clay I dug from the school grounds, mixed it with water and stirred/agitated the clay to create a slip (a process called blunging), sieved the clay before drying (to make a useable clay), then made and decorated their tiles by printing key words linked to the theme of shelter (Figure 1). They also helped prepare and light the kiln (the tiles were fired in it over a weekend). Although the ground was too hard to involve them in much digging, the pupils were active witnesses and commentators! Finally, the pupils helped to remove the beautiful, partially blackened (reduced) and oxidised terracotta coloured tiles from the kiln.

Figure 1: The clay tiles were decorated with key words linked to the theme of the shelter. Photo © Rupert Brakspear.

The pupils decided to use their tiles to protect the roof of a hedgehog house they had made for their wildlife area (Figure 2). This fitted well with the environmental work across the school grounds and with their Eco-Schools work on creating and enhancing woodland/pond/rough grass habitats. In addition, at the Monday morning assembly after the weekend kiln firing, the pupils gave some of the tiles to a group of teachers who were visiting the school from Palestine, which led to a series of fascinating discussions. The Palestinian teachers recognised the oxidised terracotta tiles, but not the blackened ones produced where the tiles were buried by the ash. Here oxygen was restricted during the firing process. We could have extended the work to a comparison of traditional 'clamp' firings or modern industrial brick/tile kilns and the different impact of firing with different materials and in different conditions.

Perhaps one of the most profound moments for the teaching staff was the pupils' response to the watching of a film from 1965: Isaac Button Country Potter (see web panel). This beautiful, silent, black-and-white film captures the work of one of the last country potters working in England. It demonstrates the powerful connections between man and materials, place and economy. We thought we might show a clip of about 4–5 minutes, but the pupils immediately recognised the processes they had been in engaged in, and were spellbound for the full running time. One pupil commented, 'He makes it look so easy' in rather an awestruck tone. After watching the film the pupils talked about how important it was for Isaac Button to be close to his clay source, to be able to dig it and prepare it himself, given that he had to carry out all of the processes of manufacture on his own.

Again, this aspect could have been extended to looking at where most clay (or timber, stone, cement or raw materials) comes from and the skills and processes necessary for turning raw materials into building materials (or other items). Furthermore, looking at how this all becomes part of local culture/economy is a key element for understanding human geography.

Finally, the class teachers noted the way that the project had inspired the pupils. It had successfully and unexpectedly, stimulated and developed their usage of specific, descriptive language. There was, too, approximately 10kg of clay left over, which would allow other pupils in the school to explore ideas generated from the assembly and tied in with curriculum priorities for the following term. For example, year 4 investigated soils, looking at what makes them different (e.g. pH, colour, organic content).

Although this project was a one-off, it could be replicated elsewhere, as Seb Benney, the Science and Eco-Schools Co-ordinator in the school commented:

'Working on this project really gave the pupils a unique experience that would normally not have been possible within the constraints of the school environment. Being a part of a whole process from conception to completion, sourcing their own materials and turning them into high-quality finished items, has given pupils a far-reaching understanding of our planet and how we use it.'.

Figure 2: Some of the finished tiles were used to roof the hedgehog house in the school wildlife area. Photo © Rupert Brakspear.

Conclusion

We are increasingly good at working with pupils in identifying where our food comes from, exploring food miles, fair trade, the route from field to fork, and so on. However, I would argue that we need to explore with pupils the fascinating connections between an object and:

- the material it is made from
- the environmental impact associated with sourcing/extracting it
- its design and its function
- its manufacture and its carbon footprint
- the people involved in the various stages of its creation.

Gaining the full picture and sense of perspective is vital if we are develop pupils' awareness of the building blocks that underpin our rapidly changing material culture, and if we are to build with them a vision of a more sustainable future.

Acknowledgement

Huge thanks to Richard Kieran (Head teacher), Seb Benney (Science and Eco-Schools Co-ordinator), and all at Woodrow First School, Redditch, for the opportunity to design and deliver this project.

Reference

Ellis, C. (2015) *Home*. Somerville, MA: Candlewick Press.

WEB RESOURCES

A M Qattan Foundation: *www.qattanfoundation.org/en*
Isaac Button Country Potter Part 1: *www.youtube.com/watch?v=fmG5NOmQy_4*
Isaac Button Country Potter Part 2: *www.youtube.com/watch?v=rMWXVWsW7no*
Isaac Button Country Potter Part 3: *www.youtube.com/watch?v=E55-Wx_Ihbo*
Isaac Button Country Potter Part 4: *www.youtube.com/watch?v=J6a9coGC-ts*
Mantle of the Expert: *www.mantleoftheexpert.com/about-moe/introduction/what-is-moe/*
mySoil app: *www.bgs.ac.uk/mysoil/*
UKSO Soils map viewer: *http://mapapps2.bgs.ac.uk/ukso/home.html*

Rupert Brakspear works as a freelance educator and ceramic artist based in the West Midlands with a particular focus on the themes of sustainability, a sense of place and the connection between people, material, culture, landscape and the natural world.

SUSTAINABLE STIMULI

DES BOWDEN

Des explores how a simple West African artefact can be the stimulus for a plethora of ideas, making it an exceptional sustainable classroom resource.

Using artefacts

The wise use of artefacts in the classroom can engage all learners, especially those who have strengths in kinaesthetic learning (touch, shape, feel), and can gain the attention of reluctant learners.

Selecting suitable artefacts needs careful consideration to avoid stereotyping, as they may only provide a partial representation of a place, but used appropriately they can be a long-lasting key source material to stimulate work across the curriculum.

Teachers also need to be well prepared for using any artefact, with secure background knowledge and by considering:

1. Why am I using this artefact?
2. How will this particular artefact extend my pupils' understanding of a particular place/theme/issue?
3. What is the context in which this artefact is used?

Stimulus item

The plastic kettles shown in Figure 1 are found widely in West African countries such as Mauritania, Guinea, Sierra Leone, Liberia, Ghana, Cameroon, Mali, Niger and Burkina Faso; most households, restaurants, workplaces and mosques have at least one.

Figure 1: Investigating the artefact. Photo © B&C Educational.

They cannot be used for boiling water, but nonetheless these multi-coloured, recycled plastic kettles are produced in their tens of thousands, if not millions, in large modern factories in Africa. What are they used for and why are they so popular?

Figure 2 suggests some ideas for beginning to explore this artefact. Further images, ideas and background information on the kettles can be freely downloaded to use with your class, showcasing the versatility of one simple artefact.

Enquiry questions	Initial answers	Suggested activities	Deeper questions
What?	A kettle made from recycled plastic	Write a short description of the plastic kettle	Where do you think the plastic comes from?
Where?	Used in many countries in West Africa	Complete an outline map of West Africa naming and locating the cities and countries mentioned	Why aren't they used in Europe? Why not in other developing countries?
Why?	For carrying water, but particularly for ritual ablution and for hygiene in local toilets.	Find out about domestic water supply in one of the countries named in the article. Explain how the use of plastic kettles in collecting and storing water helps to meet Global Goal 6: Clean Water and Sanitation. Find out about the ritual of *Al Woudou*.	Why don't people use taps and sinks in their own homes? Why don't people use toilet paper in the local toilets? Is this fair that there are these differences?
How?	How are these made?	Find other items that are made by injection moulding and compare their uses.	They are made by injection moulding, how is this done? What are the pros and cons of this method of manufacture?
Who?	They are made in large modern factories, including in Lagos, Nigeria, and Dakar, Senegal.	Write the story of a kettle's life, from being formed in a factory to its daily use	What would happen if these factories did not produce the plastic kettles?
When?	They are currently in production and use	Imagine you are re-designing the kettle. What changes would you make, what materials would you use, and what improvements could you make? Consider cost, market, volume, usability, source of materials, ease of manufacture and sustainability issues.	They are based on the traditional design of a metal kettle. Why do you think this is?

Figure 2: Suggested activities using an enquiry approach.

WEB RESOURCES

Download images, ideas and background information: *www.geography.org.uk/pg*

Dr Des Bowden was head of geography at Newman University Birmingham, and is now co-director (with Pam Copeland) of B&C Educational Ltd (www.primary-school-resources.com).

INSPIRING THE NEXT GENERATION

LIZ ROSSALL

In this article Liz explores how the WWF works alongside schools across the UK to help foster a real culture of sustainability.

Here at WWF we believe that each and every one of us has a responsibility to help children explore the natural world around them. We inspire young people to find out about environments far away, and to understand and embrace the need to care for our planet – along with the species and people that depend on it. We work in some truly spectacular places around the globe – from the steamy tropical rainforests like the Amazon, through dreamy English chalk streams, to the Arctic and Antarctic. In fact, we work on every continent to protect our planet for future generations.

I have worked in the schools and youth team at WWF-UK for 11 years and I am incredibly proud to say that within my role I get to see just how passionate and inspirational young people can be about conservation issues. It is a huge remit, which spans tackling the issue of climate change to protecting endangered species and spaces. Although the challenges often seem huge, it is often the younger generation who have the imagination to visualise the solutions and identify the smaller steps we can all take to help protect our planet.

That is why we created WWF's 'Green Ambassadors' scheme in 2011. This initiative has gone from strength to strength since it began; it empowers young people to have a voice, to lead and to take action on environmental issues. Over 6000 registered primary schools from across the UK are helping to create a brighter future for our planet and inspiring a whole new generation of sustainability advocates.

The scheme encourages pupils to make environmental changes within their school and their community. For schools that are only just beginning their sustainability journey this can be a huge and daunting mission: we needed something to help and inspire the pupils, which is where our Green Ambassador characters come in. Each character represents an area that WWF looks at to help protect our planet, and each has its own personalities, skills and interests.

- 'Earth' is the team leader and is passionate about global links, caring and considerate of others.
- An expert in buildings and grounds, 'Brick' is solid and dependable, a really a very practical character.

Figure 1: Pupils at the Green Ambassadors 2016 Summit developed team work and communication skills. Photo © Richard Stonehouse/WWF.

- 'Leafy' is our nature and environment expert, and although a rather chilled character likes to question and think differently about things.
- 'Smith', an apple, is enthusiastic in everything, which makes for a great team player. Smith is our food fanatic, always helping pupils to understand how our food choices can affect the planet, and encouraging them to learn about growing food in their school grounds
- As usual, with any team coming together you always have the thrill seeker: meet 'Wheel'. An expert in travel and traffic, Wheel is always coming up with ideas on how to get to and from school more sustainably.
- There is always the joker in the group, this is 'Crush', our waste and recycling guru, who loves to invent ways to use items differently.
- Then there is 'Switch', who is passionate about energy saving. Switch knows a lot about technology and is a natural leader who always has a plan.
- The last of the main characters is 'Tap', an expert on water, who also likes to find out how things work. Tap is hardworking and is the sensible one in the group.

The characters we have created are designed to help pupils identify the key skills they have to offer a team. This approach encourages pupils to develop everyday life skills. These include deciding who is going to lead the team, setting agendas, holding meetings, taking minutes, noting action points and, perhaps more importantly, presentation skills – how do they gain the support of the head teacher, bursar and caretaker to make their green ideas a reality.

Over the last four years, WWF has hosted annual Green Ambassador Awards to showcase the amazing work that our Green Ambassadors undertake within their schools. Many schools tell us about their environmental projects, hoping to become the Green Ambassador School of the year, but we do not stop there, we also shine the light on individual teachers and pupils each year!

Dedicated and hardworking teachers and pupils, who are passionate about the environment, have a chance to be nominated for the Green Ambassador Teacher/Pupil of the Year. In 2016, we hosted a two-day Green Ambassador summit and invited a selection of pupils and teachers from the shortlisted schools to attend. The summit was held in central England, because our 6000 Green Ambassador schools cover the whole of the UK. The pupils took part in a range of outdoor activities aimed at developing their team working and communication skills, building their confidence and belief that just one small action can have a big positive impact (Figure 1).

Figure 2: Two of the amazing animal masks made from recycled materials. Photo © Richard Stonehouse/WWF.

The pupils took part in a guided walk through nearby woods and created quirky animal masks from a whole host of recycled materials, including plastic bottles, drink cartons, egg boxes and yoghurt pots. By the end of the session, the pupils had created amazing lion, monkey and giraffe masks (Figure 2). In our final session of the day we demonstrated that if we all join together we can make a bigger and greater impact. With the help of a company called Big Beat, we hosted a musical workshop on the theme of 'What a load of junk'. Everyone used recycled materials (such as bike wheel frames, plastic pipes, plastic bottles) to create an amazing musical piece, which helped demonstrate what is possible if we all join together and unite as one. It was amazing to see so many of our Green Ambassador pupils extend their skills over the two days, and I was in awe at how everyone came together to interact and engage with one another as part of the wider Green Ambassadors community.

We encourage our Green Ambassadors to share their stories with others across the UK on our Green Ambassador hub (see web panel). A secure site, the hub allows teachers or pupils to submit their stories to help and inspire others on their journey. There are also online tools available to assist our Green Ambassador schools in their eco activities: from energy surveys to our latest 'Plant2plate campaign', some activities can be carried out in the classroom and/or outdoors. These activities are easy to use, can be adapted to the age range, link to the curriculum through science, geography, maths and literacy, and include lunchtime or after school activities.

We would love your school to become part of the Green Ambassador community. You can register your school and see your pupils develop into caring, committed and capable sustainability champions.

Editor's note

In 2016, the Eco Committee at my school registered to become Green Ambassadors and, immediately, pupils were very excited by the online resources, the tools and opportunities that the scheme provides. My pupils were so passionate about sustainability that, after a visit from WWF to see their work at school first hand, they were invited to attend the Green Ambassador Summit in Shropshire. Although the pupils did not come first, they won £2500, which they have already ploughed back into their Eco Club to foster the culture of sustainability further. *RH*

WEB RESOURCES

Register for Green Ambassadors and view the full range of WWF support materials: *wwf.org.uk/schools*

Liz Rossall is Schools and Youth Officer at WWF-UK, where her main focus is the flagship programme Green Ambassadors, inspiring and empowering young people to help save our beautiful planet (twitter account: @LizRossall1).

POWER TO THE PUPILS

BRYONY BROMLEY

Here, Bryony outlines the Eco-Schools programme and describes how schools can get involved. She provides examples from her work in Wales.

The Eco-Schools programme

The Eco-Schools programme is now the largest environmental education programme in the world, running in over 60 countries. It is administered by the Foundation for Environmental Education, but each nation involved manages the programme through a non-governmental organisation. In Wales, 'Keep Wales Tidy', a leading environmental charity, manages the programme and has sourced funding from Welsh Government to do so.

After graduating from the University of Aberystwyth with a degree in geography and then completing a PGCE in Primary education, as well as spending a couple of years of supply teaching, I began work as an Eco-Schools officer for Keep Wales Tidy in South Wales. Ten years on, I am still here and I use my geography and teaching background on a daily basis to enhance a really fantastic programme for pupils of any age.

The unique thing about the Eco-Schools programme is that it provides a truly pupil-led approach to making a positive impact on issues linked to the environment and sustainability. The impact can be measured and visualised in order to illustrate the difference small actions pupils can make and their reasoning behind them.

Making changes

Take Llysfaen Primary in Cardiff, for example. A few years ago the pupils on the School's Eco-committee noticed that the caretaker was switching on all of the lights in the morning before the teachers and pupils arrived. As a school of about 450 pupils, this was a lot of lights. The Committee also noticed that many lights were switched on as a matter of habit, rather than when they were needed. The Committee decided on two courses of action. First, they asked the caretaker not to turn all the lights on when he arrived. Second, they devised a simple sticker system to indicate which lights were ok to use and which really did not need to be turned on.

Pupils investigated the impact of palm oil plantations on rainforests. Photo © KYTan/Shutterstock.

The Committee looked at the weekly electricity use in the school before and after implementing the above changes, and found that the school had managed to save 719 units or about £70 in just one week!

What is particularly impressive and inspiring about this project is that it has been incorporated into all year 5's classwork. It is now this year group's responsibility to check that the system is still working, which directly links to curriculum work on energy production, consumption and the impact of climate change. The pupils are able to see how something they initiated has saved the school thousands of pounds and their actions have a direct impact on our planet.

Having worked with hundreds of Eco-Schools across Wales, it is evident that the programme works most effectively when it is embedded into a school's ethos and linked clearly to the curriculum. This answers the 'why?' behind all the actions we are being constantly told we should do: 'Why turn off lights, what difference does that make to our planet?', 'Why reduce, reuse and recycle?', 'Why use rainwater instead of tap water for toilets and plants?' Without understanding the reasoning behind different actions, it is almost impossible to enable a sustained behaviour change in pupils. They need to know the consequences of positive or negative actions.

The Committee noticed that many lights were switched on as a matter of habit. Photo © Tawining/Shutterstock.

Rainforests is a popular topic in many primary schools and provides a wealth of opportunity to learn about these incredible habitats. When pupils learn about rainforests, they come to understand the huge threat that rainforests face, and feel strongly about the injustices being done to animals, people and trees alike.

In Radnor Valley Primary in Powys, pupils took what they had learnt both in class and at a local Eco-Day with other Eco-Schools to make a sustained change for the better. After learning about the devastating impact of palm oil plantations on rainforests, members of the Radnor Primary's Eco-Committee sat down with the school cook to investigate what the kitchen used that contained unsustainable palm oil. As a result, the cook now sources alternative cooking oil, is much more aware of what goes into the food and knows what to avoid buying.

Figure 1: Food is a fantastic geography topic, which can include fair trade and the benefits of home-grown produce. Photo © Bryony Bromley.

Food is another great geography topic: you can look at where food is grown, how it is grown and any impacts on people and the environment, how food is transported and the amounts of food that are wasted. The topic can take any number of directions, but looking at food miles covers aspects of numeracy and prompts discussion about buying locally-grown and seasonal food. Pupils can look at growing their own and compare it to shop-bought food to gain a greater understanding of which foods can be grown at home (Figure 1).

After establishing a number of raised beds and an orchard in the school grounds, pupils from Ysgol Dolafon were able to discuss the benefits of growing your own food. Many pupils were really taking the sustainability message home with them and have since set up their own vegetable or fruit growing areas at home.

Voices of the future

In a society where through the media we know lots about what happens globally it is easy to become lost in the enormity of problems and to feel that we cannot do anything to change the outcome. Facilitating pupil voice and pupil-led change allows young people to see that they can make a positive difference and that we are not completely powerless. Linking the knowledge gained through geography-based topics to Eco-Schools provides a mechanism for identifying problems, planning solutions, measuring impacts and celebrating successes. Empowering our young people to lead on implementing positive changes is such a powerful gift that we, as educators, can bestow. I continue to be inspired on a daily basis by the creative solutions that pupils implement through the Eco-Schools programme.

WEB RESOURCES

Eco-Schools (Wales):
www.keepwalestidy.cymru/eco-schools
Eco-Schools (England):
www.eco-schools.org.uk/
Eco-Schools (Scotland):
www.keepscotlandbeautiful.org/sustainable-development-education/eco-schools/
Eco-Schools (Northern Ireland):
www.eco-schoolsni.org/cgi-bin/greeting?instanceID=1
Keep Wales Tidy:
www.keepwalestidy.cymru

Bryony Bromley is an education and senior officer for Keep Wales Tidy, covering the East region of Wales and primarily supporting schools to implement the Eco-Schools programme.

SUSTAINING SCHOOL GARDENS

SAM WOODHOUSE

Everything we do when creating a school garden teaches 'about' sustainability, but what about sustaining interest in the gardens themselves? Here, Sam looks at sustaining interest in sustainability.

To establish a school garden can be immensely creative for the whole school. The benefits are well-known: health, social interaction, fostering a love of nature and encouraging understanding of the earth, but gardens need maintaining! It is such a sad thing when a school, full of promise and energy, sets up a garden that after only a few years degenerates into a neglected eyesore.

Initiatives, begun with eager enthusiasm, can fade and die; we need to be forgiving to ourselves when they do. Sometimes projects need to disappear before new ideas can emerge, but if a garden is to succeed and thrive in the long term, three crucial ingredients are essential:

- vision (why does it matter?)
- management (who leads and who carries out the work?)
- passion (where is the energy?).

I asked the garden co-ordinators in three schools (all of whom had recently gained their Green Flag Eco-Award) for their wisdom about maintaining their work. Arising from three very different contexts, I received three very different answers, but all three underlined the importance of the three ingredients.

Damers First School

One of several First Schools in a residential area of Dorchester, Damers has 450 pupils aged 4-9 years. Edd Moore, a year 1 class teacher and Eco Co-ordinator, provides the inspiration and leadership for their garden: 'I stumbled across the idea of designing a school garden in 2014. I am passionate about children being actively involved in gardening'. He built a garden in which each class has its own raised bed.

Curriculum objectives lead most of the activities in the garden. Edd realised that the pupils had little understanding about where food came from, other than from supermarkets, so they followed the National Curriculum links from growing to cooking in design and technology. Now, the garden is linked to whole-school global learning projects. Each year group researches and grows plants from their focus country for that year (this includes Kenya, Jamaica, Italy, Mexico/Peru, and India) and the pupils cook a traditional dish. Most classes also link their gardening work to literacy, maths, science, and design and technology.

Edd sees his role as similar to that of a curriculum leader. 'You do need someone to drive the project,' he says. 'Someone who is passionate, has the enthusiasm and can engage staff to join together. Also, someone who is organised!' Edd plans well ahead, so that all the staff know what to grow, how to do it and how it is linked with the curriculum. 'The majority of staff are happy to work in the garden with their pupils because everything has been provided – except the key elements of sowing, weeding, watering and harvesting.'

To avoid falling into the trap of only one person being the inspiration and manager, other keen gardeners among the staff work with Edd in instructing and giving advice to teachers in their teams. I sensed that Edd provides that most elusive element – passion, which in turn inspires innovative projects. Last year, the whole school collected 1500 plastic water bottles and year 3 pupils, plus helpers, used them to make a working eco-greenhouse (Figure 1). This greenhouse is an inspiration to other Dorset schools.

Figure 1: Damers school garden features the pupil-built eco-greenhouse – made from recycled plastic bottles. Photo © Sam Woodhouse.

Figure 2: Dumpton school garden thrives with the enthusiastic involvement of the pupils on a daily basis. Photo © Dumpton Prep School.

Dumpton Prep School

An independent day school in a rural area near to Wimborne, Dumpton Prep School has 340 pupils aged 2 to 13. For over ten years Dumpton School has run an impressive allotment, which provides an outdoor laboratory for science topics throughout the school. It is also the focus for an extraordinary number of pupil-centred and pupil-run growing projects. As many as 60 pupils descend on the area each day, often in their free time, working in groups, and the results are impressive crops of anything from pumpkins to sunflowers.

One motivation is competition. The Head teacher says: 'Children are naturally competitive, and will rise to any challenge, whether it is growing the longest, the biggest or the tallest… for example the year 3 Potato Challenge. Each pupil is given one seed potato and, in groups of three, pupils weigh their potato, plant it in a raised tyre and tend it. At harvest time comes the weighing of produce, and pupils calculate of the percentage increase in mass!'

The Head teacher, the head of science, a science technician and a team of year 8 pupils manage the allotments. Here are the clues to success: first, the head teacher who abounds with enthusiasm for the allotment and all the environmental projects. Second, cascading from this, the enthusiastic involvement of pupils participating in the day-to-day tasks (Figure 2) and with freedom to use the space as an enterprise arena. Senior pupils act as role-models and supervision is provided by staff members at lunchtimes. Across the school the enthusiasm for the allotments has spread, along with recognition of their potential. The passion for gardening has become a shared one.

The passion is not fuelled just by a desire to compete, the Head teacher says: 'Gardening in schools requires a slow gathering of momentum. In our connected world everything is a simple click away, and pupils like to see instant results. However, they also have a natural interest in the living world and enjoy digging, weeding, planting and harvesting together, learning along the way that patience and hard-work will eventually bring rewards. Commitment to the cause is vital, come fair weather or foul, as there will be plenty of the latter'.

St Mary's C of E Primary School

St Mary's Primary School in Bridport is part of the Skilling housing estate, an area with multiple social issues including high unemployment, isolation, poor diet and high levels of obesity. The school has 170 pupils, aged 4 to 11.

Two inspirational community projects work here, Transition Town Bridport and HOME in Bridport (see web panel). Both recognise the need for education on the importance of food in children's upbringing, so in 2014, working with the school, they set up the 'edible garden' to improve the health, well-being and behaviour of the pupils, with benefits for the whole estate.

Now, a whole outdoor learning and food production area has been established. Two polytunnels and raised beds provide a vegetable box each week to the school kitchen team, with hot meals from scratch and a salad bar for 96% of the pupils (those entitled to free school meals) replacing the previous warmed-up frozen meals. Cookery classes are offered to pupils and parents, and teamwork provides nurture sessions. Pupils with behavioural conditions find the gardening therapeutic. A weekly gardening session welcomes parents, grandparents and friends, who are rewarded with fresh produce to take home. In addition, regular social events are held in which people cook together on the cob oven, so families who might otherwise never meet mix together.

Vision and passion permeate this whole project, and a local retired teacher, Sarah, the garden co-ordinator, helps to sustain it. From the outset, a managing group was set up; it has worked hard to establish trust within the school and local community. They raise considerable funds – most recently, via a crowd-funded project to employ two local gardeners for three hours a week each. Volunteers help with the growing of food as the school and estate community have slowly become involved. The project has had an unexpected benefit: the outstanding school is so popular with parents that two classes have now become oversubscribed!

Visions for now and the future

We can learn from these three schools that:

- although the visions differ, all three go beyond the garden itself, enabling pupils to learn and look outwards to a wider social context. What they have all done is to be clear about their vision, and have shared it – with colleagues, parents and the local community. People get excited by a vision.
- shared management is crucial. In each case there is one lead, but that person has created a team, with good support from the SMT. The advice is well-known but easy to ignore: do not even begin if there is only one enthusiast!
- passion is the key! Skills can be learned, but the passion to make the vision work is crucial. If gardening is merely an 'ought', it will run out of steam and will not be sustainable. In which case it might be better to take pupils to local gardens and talk to gardeners. Celebrate their work – that way the passion just might be kindled.

If, right now, you can recognise that the potential vision, management and passion are there in your school, go for it! It will be immensely worthwhile.

Acknowledgement

With thanks to Edd Moore of Damers First School, Andrew Browning of Dumpton School, and Sarah Wilberforce of St Mary's Bridport for their contributions and their inspiration.

WEB RESOURCES

HOME: *http://home-in-bridport.weebly.com/*
Transition Town Bridport: *http://www.transitiontownbridport.co.uk/content/*

Sam Woodhouse is a GA Consultant and passionate gardener! She works informally with schools in Somerset and Dorset to encourage school gardening, is a member of the schools committee of the Dorset Gardens Trust, and runs twilight sessions for Dorset teachers.

PRYD A MWY OR SHARED MEAL AND MORE

EIFIONA THOMAS LANE

In this article, Eifiona discusses a project aimed at fostering the sustainability of food supplies, local traditions, stories and culture through inter-generational activities.

Introduction

We facilitated the informal sharing of a meal between young people and older generations in the community. This allowed free-ranging discussions of food preferences, values and meal-based practices and ingredients, all of which we recorded for research purposes. Organising the meal enabled the researchers to explore inter-generational exchanges about the hidden, rare, traditional, yet everyday practices that constitute a remnant, still living, memory of rural Welsh life.

During the discussions, re-tellings of childhood stories involved conveying memories of family-loved and foraged foods that captured the essence of a distinctively localised Welsh food culture. In the area of Wales where the activity was undertaken mealtimes generally remain a shared family experience and, for many participants, are rooted deep in pockets of local production and consumption.

Using community events and stakeholder workshops, the study questioned whether a broader investigation (one that delved into traditional food values and equity) across more schools and a diverse range of cultures would be useful in demonstrating how our understandings of food and meals are shared across generations, especially in the face of our ever-increasing globalised food culture of choice and processed heritage. This would, we hoped, inform future food policy and well-being and contribute to the dietary debates and it would be based on a fuller appreciation of the uniqueness of everyday local foods from inter-generational perspectives.

Such traditional values and local histories can inform and broaden theoretical contexts that inform the building of more resilient local food systems and cultures. Very little research work has been undertaken to investigate popular understandings of food cultures (Short, 2006); fewer still in relation to inter-generational learning, and none of them based in Wales and focused on local food.

The shared event allowed young people and old to explore the uniqueness of everyday foods and the value of shared meals. Photo © EwaPix/Shutterstock.com.

Therefore, this study used an action research perspective and participant observation methodology to offer a rich and unique case study. The school-based activity investigated traditional Welsh/bilingual young people's view and values. The resulting *Food Values Report* (Powell *et al.*, 2015) summarises a range of such unique shared meals across Wales.

Focus and methods

Following detailed discussions with head teacher and class teachers, a class-based activity (planned and lead by Jane Powell of the Organic Centre Wales), was undertaken by the year 4, 5 and 6 pupils. Parental permission was obtained for the pupils' participation in the event. This group activity was organised for one morning a week prior to the shared meal and involved a pupil-driven discussion based on a basket of food, which included a mix of fresh and packaged, international and local foods. Discussion focused on where the items were produced, whether they were good or bad for health, how to cook them and, most importantly, whether the pupils liked the foods or not.

In small mixed groups, pupils ordered the choice factors written on sticky notes to show which factors their group considered important when thinking about food generally and when choosing for their own meals.

The pupils were encouraged to discuss the activity with their school cook and their families and make suggestions to the class teacher about possible extension activities. They were asked to prepare questions and points to help them discuss the meal they were to share on the following week. Transport to and from the venue and the full cost of the meal were covered by the school; the ingredients were communicated in advance to the school.

With the older participants a pre-meal introduction to the activity was undertaken. The group was asked to bring memories, stories of past everyday meals and celebrations, images and other food artefacts to the meal to stimulate conversation.

The meal was hosted in a local restaurant by a Welsh-speaking facilitator, and the activity was videoed and short interviews recorded and later transcribed. These included talk between and within the two groups, and their interactions with several local producers and a sustainable enterprise gardening group who also shared the meal. The shared meal was organised specifically to include locally-sourced meat from the high-street butcher and farm-sourced lamb from within two miles of the venue. Thus, the menu was negotiated to provide a healthy attractive meal for both young and older participants – avoiding dislike and ensuring low-energy in terms of distribution and processing, and very little packaging.

The richness of the shared inter-generational experience was in evidence through a shared meal representation of an everyday nexus of social and private performances. A fuller discussion is available in Powell *et al.* (2015).

Discussion and findings

During the shared meal, the participants were captured as if within a large-scale snapshot of their food landscapes partly explained by the nexus of shared energy, water and food, yet differentiated by age and experience. A wide range of materials gathered during this event – audio-visual, interview-based and participant observations gathered before, during, and after the event. The nexus (or place of bringing together past and present food practices) raised discussion on shared values of frugality – simple foods and meals were recalled that fed many mouths cheaply. Foods that were seasonal and locally-available, freely-gathered or foraged were seen as community foods, with a shared community heritage. Often these were healthy and wholesome, such as blackberries, buttermilk, cockles and cheap cuts of meat that were boiled.

Subsequent reflection on the material has allowed academic discussion of food cultures and gastronomy. It has also enabled pupils to undertake both class-based and fieldwork follow-up work, including looking at local foods, and local farming and supermarket visits (Figure 1).

Food Topic	Pupil Activity
Frugality and Commensality	Reduction of Food Wastes (through re-use etc)
Community and Nostalgia	Fair Trade and Past Foods
Sustainable Local Foods	Farm visits and Food for Tourists

Figure 1: Subsequent reflection has enabled class-based and fieldwork follow-up activities.

The researcher acted as a participant observer and one parent acted as one of the facilitating team, helping to organise the event and gather material for later consideration.

From the school's perspective, the Head teacher considered the *Pryd a Mwy* (or Shared meal and more) activity:

'yn ffordd diddorol a bywiog o gyflwyno nifer o agweddau pwysig iawn am dyfu bwydydd lleol i'r plant... mae'r plant wedi dysgu holi bobl hyn am eu hanesion a meddwl mwy am ganlyniadau eu dewisiadau bwyd a pam bod bwyd mor bwysig i ni fel ysgol mewn ardal wledig lle mae rhai o'r teuluoedd yn ffermio'.

Which translates as:

'an interesting and lively way to introduce many different aspects of growing local foods to the pupils... they have learnt to ask older people about their stories and to think about the result of their food choices and why food is so important to us in our school in a rural area where some of the families are farming'.

Conclusion

The shared event allowed young people and old to explore the uniqueness of everyday foods and the value of shared meals. The value to the local economic, cultural and social community was considerable. It has to be said that, since the 1950s, there has been a loss of diversity in the offer of youth food spaces and the pull of such open access spaces as well-known fast-food outlets is neither to be underestimated nor undervalued given the degrees of isolation that is many rural young people's experience. While this may not be the healthiest food choice, often it is driven by the social experience of sharing the space rather than the food itself. Because the draw may be better explained by the perception of an informal, shared food experiences and perceived ownership of safe, culturally-acceptable meal spaces. Within free Wifi cafés there exists a casual and understood expectation of what being in these familiar eating and social spaces will feel like – and young people are not often disappointed by them. Pinkerton and Hopkins (2009) discuss working towards a more localised food economy and suggest how to engage with young people and families within their school community on the topic.

Coupled with interesting and fresh class-based activities, which were very well received, sharing a meal with older community members offered our pupils a new experience of safe, social spaces. The preparation required to organise such an event should not be underestimated. However, one way to balance out the financial cost (e.g. of the academic funder, Organic Centre Wales) is to consider the long-term outcomes from what is a good food experience. This could lead to better cohesion and communication across generations about informed future food choices and to a challenging of unsustainable globalised food values – all of which are in line with Welsh Government Future Well-being Goals.

References

Brown, R. and Ohsako, T. (2003) 'A study of intergenerational programmes for schools promoting international education in developing countries through the International Baccalaureate Diploma Programme', *Journal of Research in International Education*, 2, pp. 151–65.

Newman, S. and Hatton-Yeo, A. (2008) 'Intergenerational learning and the contributions of older people', *Ageing Horizons*, 8, pp. 31–9.

Pinkerton, T. and Hopkins, R. (2009) *Local Food: How to make it happen in your community*. Cambridge: Transition Books/Green Books.

Powell, J., Wynne-Jones, S., Sanderson, R., Hooker-Stroud, A. and Packer, S. (2015) *Food Values*. Aberystwyth: Organic Centre Wales/PIRC/Aberystwyth University.

Short, F. (2006) *Kitchen Secrets: The meaning of cooking in everyday life.* Oxford: Berg.

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THE PRIMARY GEOGRAPHY INTERVIEW

DR STEPHEN SCOFFHAM

Dr Stephen Scoffham, Visiting Reader in Sustainability and Education at Canterbury Christ Church University and Junior Vice President of the GA, gives his thoughts on geography and sustainability.

Dr Stephen Scoffham (second left) working with staff and students exploring how sustainability is about our connections to each other and the natural world. Photo © Karen Shepherdson.

Why do you think geography is such an important subject to teach?

Geography is about exploring the world in all its diversity and wonder. As children explore, they understand a lot more about who they are, which is important in building their sense of identity and belonging. If children didn't learn geography, they would lose a global perspective and the opportunity to develop key skills in cartography, practical work, outdoor learning, IT and enquiry. One of the challenges at the moment is finding enough time, as there is a lot of enthusiasm for geography but the opportunities are limited. Areas such as SMSC and British values can give us the way in, as geography contributes so well to them both.

What do you understand sustainability to mean, especially to young people?

On a surface level, it is about turning off the lights and recycling and all the things which go with being 'green', but it is also about how we relate to each other, building healthy communities and how we connect with our surroundings in ways that are both human and ecological. It is immensely complicated but also really very simple. In a nutshell it is about how we find a way of living well on the planet that sustains us. We know that the demands that we are making on Earth are excessive and so we must adjust them. Sustainability for young people is about the future; their future and the world that they will be living in. Whether we want to think about the environment or not, environmental issues and sustainability are going to provide the context and the meta-narrative of young people's lives. So, if education isn't addressing that 21st century meta-narrative then what is it for?

How do you feel you live in a sustainable way?

I am not a fan of ostentatious virtue and I'm not saintly and I don't think I need to be. We live in a society where we do all sorts of different things and it's difficult to do the 'right thing' all the time. I don't feel the need to move to Western Scotland to live in an isolated community where I can be closer to the soil. Equally, I don't see sustainability in terms of being surrounded by high-tech 'smart' machines. It is more about the way in which you live and relate to others. It is part of living in more co-operative ways in communities that are healthy, where people regard happiness, prosperity and wellbeing in a broader sense rather than just the accumulation of money. Ultimately, to be interested in sustainability you have to care about the world and care about other people.

Do you believe that sustainability issues should be taught in school and, if so, why is it important that they are?

I would just say in capital letters – YES! They should be taught because sustainability is about the future, it's about building capacity to make wise choices. I think we are at a time when there are a lot of choices to be made and it is much more likely that we will make good decisions if we have got youngsters coming through who have engaged with sustainability and understand it.

Can you think of a good example of how pupils learn about sustainability in school?

I think primary schools have done a wonderful job in making sustainability very immediate for pupils. Turning off lights, recycling and developing school gardens is a really empowering message. On another level, there is a lot of enthusiasm for engaging pupils with the outdoors, taking them beyond the four walls of the classroom – Forest Schools are a good example of that. These are the types of experience that children will take into adulthood. You can trace back why adults are interested in and care about nature to very early childhood and an engagement or one-ness with nature. This was central to Froebel and his concept of the kindergarten. Learning about sustainability is a long-term process that is integral to who you are and develops through lots of different experiences. One of the dangers of sustainability is that pupils can become over-zealous. Eco-warriors are fine but be careful because it can become obsessive and reduced to a single story – just one way of looking at the world. The sustainable school has a wider ethos and isn't restricted to a prescribed set of behaviours.

Your role as Visiting Reader in Sustainability and Education is a unique one – could you tell us how it came about and what you understand its purpose to be?

I think it is unique but I can't prove it, I'm waiting to find another! My role as Visiting Reader is a research role and I am now working across the university with 1400 staff trying to encourage colleagues to introduce and integrate sustainability in the courses that they are teaching. We take the view as a university that a degree is more meaningful if sustainability is a part of the students' understanding of their subject. And I'm pleased to say that this aspiration is now in the university's strategic plan.

If you think ahead to a future sustainable world, what might it look like?

In a way we don't have to wait for it – we are there already. One problem about the future sustainable world is that people keep waiting for a solution that appears to be just around the corner, but we already have the technological knowhow to make a very good attempt to live within our planetary means. What we lack is the political will to do it, partly because the politicians haven't got the support from the electorate. The Stern report made it very clear that the costs of failing to address sustainability are likely to be very severe. It just doesn't make economic sense to go on living as we are. We need to make wiser choices and head towards a fairer, more equitable world where we make fewer demands on resources and the environment. Young people need to be better informed and care enough to make those right and wise choices.

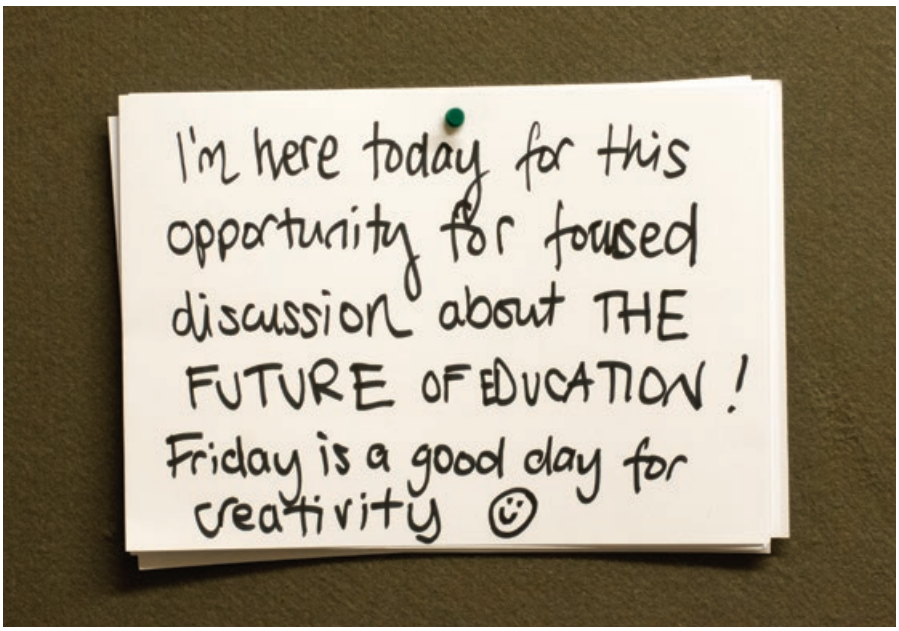
Congratulations on being elected to be President of the GA!

It is a great privilege and I was thrilled. It is a four-year process, with one year of having the even bigger privilege of choosing the theme and delivering the Presidential Address for the Annual Conference. It is a bit daunting because I don't know what will be thrown at me and what will crop up, but I know I need to be realistic about my role. The President is only one person and the strength of the GA is that it is a community that works collaboratively. We don't need one big leader so much as the strength that comes from a group of people who share common interests and values. The GA has always been a wonderful forum where like-minded teachers, educators and others share ideas about geography and engage in a lively and dynamic debate, supporting each other and developing new ideas as a result.

By the end of your tenure, which will be 2020, what do you hope to have achieved?

I would like to think that the GA as a community will have flourished under my presidency. I have always been troubled by the poor multi-ethnic representation across the GA. I don't think I will be able to change that single-handed or indeed within a year or two but it is an important direction of travel.

I want the GA to support teachers more than ever from all sections of society across the country at secondary, primary and tertiary levels and provide a source from which individuals can draw strength. The other thing I am exploring as Junior VP is the appetite within the Association for a more prominent focus on sustainability issues, and that can take on all manner of different forms. It can manifest itself, for example, in our investment policy, the way in which we talk about the curriculum or how much we raise our voice on issues of policy, and I want to approach it in an inclusive manner. As President I have the opportunity to ask questions and that is what I see my role as President being – bringing important questions to the attention of the Association and then gauging the appetite and the enthusiasm for answering them.



Sustainability for young people is about the future; their future and the world that they will be living in. Photo © Jade Barker, 2013.

SUSTAINABLE LIVING AT OUR SPECIAL SCHOOL

LEANNE WHITFIELD AND JEMMA HARRIES

Editor, Richard, says: 'As a Moderator for the Primary Geography Quality Mark I am always inspired to see the work that other schools carry out to develop teaching and learning in Geography. I contacted Ty Gwyn School after reviewing their submission, because they had carried out such a vast array of work to foster sustainability, both of the subject and the experiences that the pupils at the school enjoy'. Here, Leanne and Jemma explain their journey.

We are ESDGC Co-ordinator and Geography Co-ordinator at Ty Gwyn Special School, a local authority day school in Ely, Cardiff. Our purpose-built environment was completed in 2010, and is situated between two other special needs schools. There is a local field and park adjacent to the school. We have two local shops and a library/community centre within walking distance, which is accessed daily by all age groups.

Our pupils range from 3 to 19 years old; many from multi-cultural backgrounds and religions. All our pupils have a statement of special educational needs with varying degrees of complexity, severity and health issues. The pupils are divided into two categories: pupils with a diagnosis of autism and/or severe challenging behavioural needs, and pupils with profound and multiple learning difficulties with many non-ambulant pupils.

Due to the nature of our pupils, the whole school works from foundation level with the exception of our gifted and talented pupils, who work at National Curriculum level. The level of needs differ drastically from pupil to pupil: from hearing and sight loss, ambulant and non-ambulant, wheelchair users, to pupils still learning to walk, and from severe health issues to extreme challenging behaviour. Practical and tactile learning is an extremely important learning tool and the key in helping our pupils to understand the world around them.

Our interest in geography was inspired two years ago when we both received our respective co-ordinator roles and began our investigations into how we could make geography an accessible and enjoyable experience for our pupils. We have thoroughly enjoyed it and found many ways to involve all pupils in the subject – particularly through having visitors from other countries and themed periods such as 'Caribbean week', 'Rugby world cup term' and 'Olympics term'.

Geography as a subject is threaded through many other areas of the curriculum, particularly literacy and numeracy. Pupils have ample opportunities to experience geographical activities throughout the year as well as on a daily basis – by identifying the weather every morning, navigating their way around the school as independently as possible, and recycling in their classrooms. Pupils' skills broaden to their local community as they develop an understanding of where they come from. This is done by looking at pictures, videos or objects of reference to explore their local community and what it has to offer, understanding where things are from and following their journey.

Through topic work and focus weeks and terms, pupils' geographical experiences increase – we look at and experience places globally through experiential learning, including food tasting, role playing, welcoming visitors from other countries, exploring artefacts and being immersed in different countries through sensory experiences.

Pupils appear to enjoy the subject because we present each geographical topic in a fun, engaging and exploratory

Ty Gwyn pupils face difficulties every day due to their varying disabilities, however they are still able to engage, learn, experience and have fun with geography. Photos © Ty Gwyn Special School.

way, allowing each pupil to experience it at their own pace through a process that they understand best. Pupils use their senses of seeing, smelling, touching, hearing and tasting to help themselves understand the world around them.

Pupils' basic knowledge of global issues is supported through whole-school events, where they raise money for charities (e.g. Save the Children, Send a Cow) and through initiatives such as den building and reading schemes.

As our pupils have a variety of needs and their ability to navigate themselves around the school and local areas differs dramatically some pupils use simple maps, some use memory, while others use electronic wheelchairs they are learning to control for themselves.

To help our pupils learn to the best of their abilities we need to provide them with the right equipment to complete the task. They utilise a range of specialised equipment and technology to communicate, make decisions and take control of their own learning. In addition, our pupils have ample opportunities to undertake fieldwork – both in the school grounds and the local area; educational visits are arranged on a weekly basis for pupils to explore the wider world outside their immediate environment.

Geography gives learners the opportunities to study their role in their immediate surrounding and local environment. The subject allows pupils to appreciate the diverse communities of Wales and the wider world. All teachers provide their pupils with a variety of multi-sensory experiences, which allow them to help make sense of their world and help to develop their curiosity and understanding of people, living things, past events, and so on. Through their senses, teachers encourage pupils to learn through exploration, enquiry and experimentation, whereby they can ask questions and try to find the answers. Teachers also use a variety of teaching approaches including group and individual teaching.

Pupils have a sensory timetable. This utilises the power of the senses to help them understand the days of the week. A specific taste and sound is assigned to each day and these are offered and played to the pupils every morning.

Teachers set up opportunities for pupils to see where local foods come from and to support the pupils in handling different foods in different contexts. During these experiences the teachers can and are able to engage to pupils with the subject through practical experiences and exploratory tasks, including shopping, milk and fruit deliveries.

Pupils have ample opportunities to make decisions and to contribute through geography. For example, this year we have extended our Forest School area, during which pupils were involved in choosing what plants and flowers they would like. They explored a garden centre by smelling and feeling the plants, so they could make independent choices of what they liked.

For our pupils communication can often be difficult, so we use different means of communication with them through symbols, pictures, gestures and Makaton signs. Our pupils have a variety of different ways to communicate both simple requests and to contribute to decisions and express their opinions. At our school council (which meets once a term), pupils use their own communication methods to contribute to the discussion and to write the minutes. Each pupil is encouraged to give their ideas and opinions on a topic; they may undertake surveys and gather information by asking each class about their chosen issues/topics.

Pupils in the post-16 department take part in regular Enterprise projects throughout the year. During these projects, pupils have plenty of independence to plan what they would like to do, what they will need and where they need to get the materials from, and to obtain the products and build up to creating the crafts themselves (with guidance). Pupils then have the opportunity to sell their output at fairs within school, at events and at other schools. This enables the pupils to take responsibility for the things that they have made, for them to experience complete participation throughout and understanding the 'work' process from start to finish.

Our school has been awarded the Silver Award Quality Mark in Geography by the Geographical Association. Our pupils face challenges every day; however, they continue to engage, learn, experience and have fun with geography; and express their views and opinions on the subject. In order to achieve this, we simplify the curriculum and utilise a multi-sensory approach to allow pupils to experience variety that helps their understanding.

Our advice would be to get creative, simplify tasks, allow pupils the opportunity to explore their local and wider community, and most importantly to have fun. Geography is a huge subject; there is so much to explore – as hard as our pupils work, we are sure they would agree.

Leanne Whitfield is ESDGC Co-ordinator and Jemma Harries is Geography Co-ordinator at Ty Gwyn Special School in Cardiff. Both are special needs teachers, teaching pupils with profound and multiple disabilities and autism.

CRITICAL THINKING TO PROMOTE SUSTAINABILITY

LEANNE CHOREKDIJAN

A group of pupils aim to make everyone at Kingsbury Green Primary School, London, aware of global issues. Here, Leanne describes how they are undertaking projects around the school to help combat global issues on a local scale.

Background

Last year I was working closely with the Global Learning Programme (2016), delivering sessions to a group of teachers from schools in our Partnership School's Network. As part of my role, I ran a lunchtime club called the Eco-Champions. The Champions' main role was to promote awareness of global issues and tackle them on a local scale. Over the summer term, I became responsible for sustainability and horticulture development. I was also successful in my application to be a Global Learning Programme Lead Practitioner.

Kingsbury Green Primary School has 680 pupils who represent the diversity of residents living in Brent, London. The School has embedded global learning across the whole curriculum, with a focus on critical thinking. The School values depth and breadth in its curriculum and its mission statement vows 'to provide memorable and engaging enquiry-based learning, which children call "fun"'.

Critical thinking and sustainability

Critical thinking enables the pupils to analyse objectively what they are taught in order to make informed judgements. It allows them to take responsibility over their learning so that they can think at a deeper level and question that learning.

Learning about sustainability is important in our school, because it provides pupils with an understanding of the natural world and they learn how to protect and maintain it for the future. It is especially important in the context of our school, because we have a garden and access to a country park. Both areas have been very successful cross-curricular teaching tools and are maintained for future classes to benefit from. In addition, although sustainability is not mentioned explicitly in the National Curriculum, there are plenty of opportunities for teaching about it within the curriculum. Therefore, a greater emphasis needs to be placed on identifying the opportunities to address sustainability in the curriculum.

Including engaging and holistic learning provides a context in which to explore the geography National Curriculum, because such learning will inspire pupils to develop a curiosity and fascination about the world. I believe pupils' learning should make a positive impression on them, so that it remains with them throughout their lives. I also think it is important for pupils to see the progressive impact of their work on sustainable development around school; this not only helps develop the sense of community, it also raises the profile of sustainability awareness and accountability for actions that affect the school environment.

The Eco-Champions

The Eco-Champions are a group of 18 year 4 and 5 pupils. Established in 2014–15, the club's aim is to promote awareness of global issues (e.g. recycling paper, reducing plastic bag usage, composting food waste and conserving water). The group is currently responsible for undertaking projects around the school in response to combating global issues on a local scale. The process of choosing a project provides the pupils with an opportunity to think and discuss critically. They engage in stimulating debates about global issues, how to tackle them in school and the possible scope or limitations of a project.

Project plastic

In 2014-15, the Eco Champions decided that they wanted to reduce plastic bottle and bag waste around the school. They designed and sold Kingsbury Green Primary School water bottles and canvas bags (Figure 1). This resulted in a reduction in the number of plastic bottles and bags wasted, which they viewed as a huge success! The project also met several areas of the geography National Curriculum.

The group delivered an assembly to educate their peers about what they were doing in school to combat plastic waste and how the rest of the school community could support it. This project made pupils across the school aware of the disposal of plastic bags in landfill sites and how long it takes for plastic to break down in the environment. The money raised from the sale of bottles and bags was put aside ready for the next project.

Figure 1: The bag and bottle project made pupils across the school aware of the disposal of plastic bags in landfill sites and how long it takes for plastic to break down in the environment. Photos © Leanne Chorekdijan.

Cross-curricular compost

In 2015-16, the Eco Champions decided they wanted to tackle a larger problem within the school: to combat uncooked food waste. As Kingsbury Green is already a growing school, they wanted to support this further by composting uncooked food waste from the kitchen – this could then be used in the school garden.

The group researched the process of composting in order to understand the science behind it. This provided great cross-curricular links with geography by looking at decomposition, learning about where our food comes from and how far it travels to get to us. Next, they undertook the task of educating staff and other pupils about composting and collecting food waste. The Eco-Champions delivered assemblies about the composting process and conveyed to other pupils what they could do to support the project. They created posters that included information on landfill sites and the importance of recycling to prevent larger amounts than necessary going to such sites. As one pupil observed:

> 'I am proud of being an Eco-Champion because I feel like I'm helping our school as we are making our own compost. We are helping the environment around our school and hopefully I can help the world one day'.

The group met with the Head teacher, the lead School Meals Supervisory Assistant and the school gardener to convey their ideas, aims and research for the project. Once they had all the information they needed, they chose compost caddies to collect the waste. The pupils then constructed a composter (Figure 2) and took responsibility for collecting the food each week; loading it into their composter with the correct amount of carbon. They even turned the compost themselves.

Figure 2: The Eco-Champions construct the composters. Photos © Leanne Chorekdijan.

Looking ahead

The aim is for the Eco-Champions to continue to collect uncooked food waste, to maintain the carbon needed in the composter and support their peers in a 'Seed to Market' project by providing compost for use when they plant a new crop of vegetables and fruit. The Eco-Champions also focus on publicising 'World Water Day' to promote awareness about water wastage. Each year the group forms a 'pupil pipeline' in the playground to pass along buckets of water for the garden. Thus, pupils across the school understand how far people must travel to get clean water and why water should not be wasted.

Assemblies are used to discuss events around the world, for example UN Day, the rights of a child and refugee camps have been covered. Making pupils aware about global issues is important, because it raises awareness about the world as a whole and it helps address any misconceptions pupils may have about what they hear in the news. Discussion around these areas broadens the pupil's outlook and viewpoints about the world. It provides them with an understanding of the wider concept of sustainability: that it is not only about recycling and growing, it also equips pupils with the tools to understand their world in a realistic and holistic way.

There has been a positive impact on geography progression. Our pupils can discuss the consequence of their actions on the world and suggest ways to tackle or resolve them. Pupils have enjoyed supporting their school to be sustainable, which in turn has improved pupil behaviour, given them an eagerness to learn and a determination to achieve.

WEB RESOURCES

Global Learning Programme: *http://glp.globaldimension.org.uk*

Leanne Chorekdijan is in her third year of teaching at Kingsbury Green Primary School, London.

SUSTAINABLE FUTURES

ROSE ERIKSON

Allowing pupils to explore what might happen in the future helps them to think about, reason and evaluate the world around them. As Rose argues, through this approach we can nurture confident individuals who shape their own beliefs and are socially aware of the wider community.

If we accept that what we do as educators is to prepare pupils for the future, to become socially active and engaged in all aspects of the community, then there would appear to be a deficiency in our current curriculum. It does not provide opportunities for pupils to think prudently about the future and their role in it. However, enabling pupils to explore what might happen in the future can help them think for themselves. They can then evaluate the world around them.

The National Curriculum aims that pupils must: 'Understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they bring about spatial variation and change over time' (DfE, 2014). Through this, we can nurture individuals who are more socially aware of their community and of society; who understand the impact of their decisions on future generations; and who believe they can have a positive impact on society.

Many authors and researchers have focused on the potential of futures work in geography, including David Hicks and Jim Dator. The Sustainable Development Commission publication, *Every Child's Future Matters* (SDC, 2010) illustrates the importance of focusing not only on the big concepts, but also on the child's everyday geographies.

In 2008, David Hicks developed nine key concepts in futures education, which are useful to consider here:

1. State of the world – How world issues affect children's lives in the present and future and what actions they can bring about to solve them.
2. Managing change – children need to gain the skills of adapting to change.
3. Views of the future – children need to be aware of how views of the future differ and how they affect people's priorities in the present.
4. Alternative futures – exploring a range of probable and preferable futures.
5. Hopes and fears – children need to explore their own hopes and fears for the future and learn to work creatively and realistically with them.
6. Past/present/future – these are inextricably connected; thus, children need to explore the links between them and gain a sense of continuity and change as well as responsibility for the future.
7. Visions for the future – children need to develop their skills of creative imagination.
8. Future generations – children need to discuss the rights and responsibilities of future generations.
9. Sustainable futures – to understand how a sustainable society applies to children's everyday lives and future employment.

Future News

During my PGCE, I was introduced to New Economics Foundation's (NEF) Future News newspapers (see web panel) through my geography specialism. Each NEF newspaper is based on a different future scenario: including, for example, one where we have prevented a catastrophic environmental disaster, one where the waste of resources has escalated and people are closely controlled by a government that has reintroduced rationing, and one in which people are living in a more balanced and sustainable way with our environment. These scenarios were created to help readers think about how the effects of global climate change could affect communities, organisations and families and what they might do to help tackle it. The newspapers outlined in Figure 1 offer an engaging way for groups of pupils to gain an understanding of the futures dimension as they read about different scenarios and consider how they want to live in the near future.

Putting the idea into practice

Working with a year 6 class on the topic of environmental issues, I wanted to develop their approach to exploring the future in a real way. This was not about making predictions or getting lost in the fantasy of science fiction, but about finding credible and desirable futures to encourage pupils to make good decisions in the present.

The rationale behind the project was to help them to see what sort of future the class envisioned, whether they would accept it or want to change it and, therefore, ultimately 'discover or invent, examine, evaluate and propose possible, probable and preferable futures' (Bell, 2004).

The class was split into four groups; each group was given a different newspaper and the key question: 'Would you want to live in a world as portrayed by your newspaper?' (Figure 1.) The project took place over four lessons:

- in the first, groups were introduced to the newspapers, encouraged to discuss both the stories and their implications
- the next two lessons were used to plan and create an additional page to the existing newspaper (Figure 2), and
- in the final lesson groups discussed their completed newspaper with each other.

In the first lesson, we talked about what the pupils thought might happen in the future, not just in their own lives, but also in their communities. We also discussed whether they felt that they could influence what might happen in the future to bring about change in a rapidly evolving world. From the apprehensive looks on their faces, I understood how the pupils felt: helpless when confronted with some of the realities of the world and their influence upon it. However, as Freire highlights, as teachers, we should 'unveil opportunities for hope, no matter what the obstacles may be' (Freire, 1998).

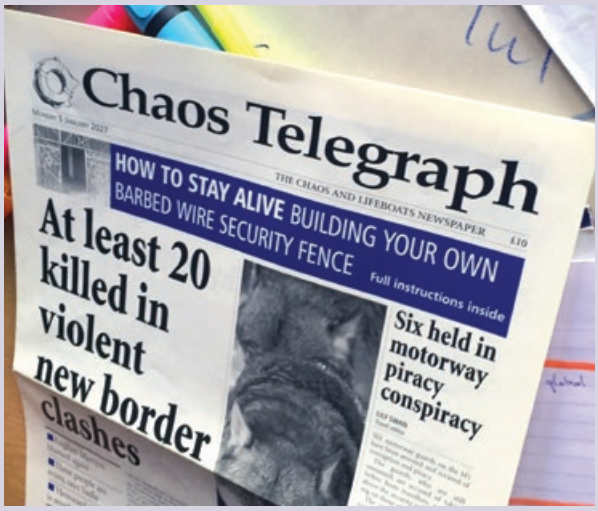
In my opinion, it is important to engage in such work with pupils to facilitate and generate discussion about issues that concern them. This helps them to consider a range of ways to address their fears through debate and discussion as a whole class, in groups and in pairs to generate possible and practical solutions.

When creating their own newspapers the groups established roles for each individual in order to ensure the process was efficient and positive. Each element had different roles for those designing the overview, creating the articles, generating images with captions and crafting the adverts. The final lesson involved the pupils asking each other questions based on their group newspaper – both within and between the groups. These included 'What would you want to read about if this was your newspaper?' and 'How would you feel if you lived in a world like this?'.

The *Interdependent* newspaper comes from a time where we have used the values of community and social solidarity to reduce our carbon emissions. While we all feel the effects of a moderate rise in global temperatures, strong social bonds have allowed us to remain happy and healthy.

The *Control Express* is a newspaper from a future in which the state has acted forcefully to control climate change. Taxation and rationing have protected the population from the worst effects of climate change, but at a cost to individual freedom.

The *Coping Standard* comes from a future where a deep sense of shared understanding was not enough to prevent catastrophic global warming. As society struggles to adapt, it draws on social bonds to protect the most vulnerable.



The *Chaos Telegraph* comes from a world in which climate change and social division have continued unabated. As the global climate becomes increasingly chaotic, those with the resources to do so seek out safe havens, while the majority of the global population faces an uncertain future.

Figure 1: Would you want to live in a world as portrayed by your newspaper?

The responses generated some highly charged exchanges between the groups. With more time, I would have encouraged further structured discussion by incorporating David Hicks' (2007) five questions to further focus the geographical learning taking place, these are:

1. Do you think people like this possible future?
2. What are some of the good things about it?
3. What are some of the difficult things about it?
4. Who will benefit and who will lose from this future?
5. Why would you/would you not like to live in this future?

These effective questioning or enquiry techniques would help the groups to analyse and evaluate the work they had done in a way that would bring about an accomplished understanding of their own futures perspective. It would also help pupils develop as socially-active citizens of the community.

The outcomes

From thinking of geography on both a global and a local community level, the class created their own interpretation of solutions to environmental issues because they were much more aware of the implications of their actions. Starting at the local level, they designed flyers to remind everyone in school to turn off the lights when leaving a room, turn the water tap off when not needed, use the recycling bins wisely and reuse paper when possible – all of which had a noticeable impact in school.

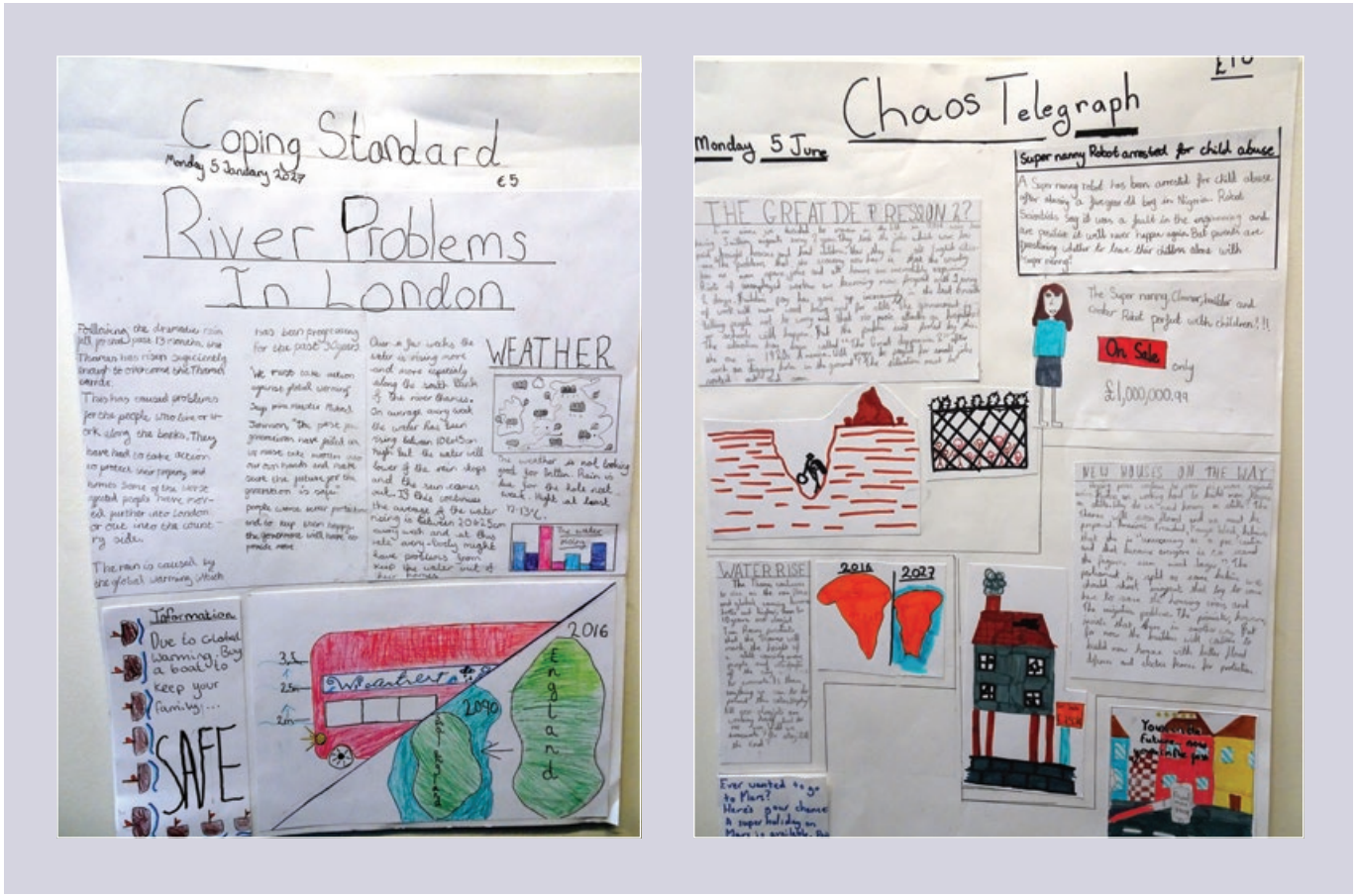


Figure 2: Pupils created an additional page to add to the existing newspapers.

Some pupils talked about cleaning up the street outside the school, while others had more ambitious plans. The work was not all serious and certainly not all doom and gloom. The pupils designed different sections for their newspapers, including film reviews, advertisements and images; this enabled them to take a light-hearted, sometimes comical element, which was crucial in sustaining interest while maintaining a reality.

The project remained highly geographically significant and through the skills that they had developed, pupils were able to enquire, communicate and express ideas about the world, both socially and environmentally. They were also able to understand the world much better, both in the present and, crucially, in the future. Geography enabled them to air their ideas, which generate actions from the local to a broader global context, and empowered pupils to act on them.

Conclusions

Thinking sustainably enables our future generations to make vital connections between their own and other people's lives around the world. Developing a classroom where pupils of any age feel empowered by their education to become agents for change should be something for every pupil to aspire to before they leave primary school. Our global and local communities will need members who are fully aware of the implications of the future, and we teachers have an important role to play in helping young people to develop this understanding.

As Hicks (2008) states, pupils need to be aware of people's different perspectives, and how they can affect other people in positive or negative ways. Only when they feel connected to the global community can pupils understand and critically analyse the world around them. Young (2010) comments 'it involves challenging racist, stereotyped and discriminatory views and promoting greater understanding and appreciation of different issues, places and people in the world'.

Through projects, like the one described here, we can help support pupils' thinking and encourage them to critically examine their place in the world. We can support pupils to make their own decisions, use their desire to bring about the changes they want, and become agents for change.

References

Bell, W. (2004) *Foundations of Futures Studies, Volume 1: Human science for a new era*. New Brunswick, NJ: Transaction Publishers.

Catling, S. (2005) 'Children place and environment', lecture at the GA Annual Conference. Available at: www.geography.org.uk/download/EVcatling1.doc (last accessed 9/1/2017).

DfE (2014) *The National Curriculum in England: Key stages 1&2 framework document.* London: DfE.

Freire, P.M.N. (1998) *Pedagogy of Hope: Reliving pedagogy of the oppressed.* New York, NY: Continuum.

Hicks, D. (2007) 'Lessons for the future', lecture at the GA Annual Conference. Available at: www.teaching4abetterworld.co.uk/docs/download3.pdf (last accessed 16/1/2017).

Hicks, D. (2008) 'A futures perspective in education' in Ward, S. (ed) *A Student's Guide to Education Studies.* Abingdon: Routledge, pp. 133-44.

Sustainable Development Commission (2010) *Every Child's Future Matters.* London: SDC.

Young, M. (2010) 'The global dimension' in Scoffham, S. (ed) *Primary Geography Handbook.* Sheffield: Geographical Association, pp. 216–27.

WEB RESOURCES

NEF Future News newspapers: *http://neweconomics.org/*

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RAINFOREST THE SIZE OF WALES

JANIE PRIDHAM

The 'size of Wales' is often used to describe an area or the scale of something. Here, Janie explores the work of the charity 'Size of Wales' and the difference it aims to make through rainforest protection.

'Size of Wales' is a unique organisation; it is a non-governmental organisation that successfully campaigns to help protect an area of rainforest twice the size of Wales and prevent deforestation, which is seen as a major cause of climate change. The charity's education programme works with pupils of all ages across Wales, offering free workshops and assemblies, resources and special projects about climate change, rainforests and deforestation.

As part of Size of Wales' education outreach programme Ysgol Brynconin in West Wales was offered the chance to take part in a project with nine other schools in the area. Assemblies and workshops in each school demonstrated how deforestation contributes to climate change and pupils were encouraged to think about what actions they could take to help mitigate climate change. Schools were invited to use Size of Wales resources, which include critical thinking activities (such as role play and issue trees), science, numeracy and games to enhance understanding of the issues.

The project culminated in a day of workshops and shared learning at the National Botanic Garden of Wales. Here, pupils gained a real idea of the size and scale of the areas of trees being felled in the rainforest by exploring the 'Ghost Forest'. Created by Angela Palmer, the Ghost Forest comprises ten primary rainforest tree stumps from Ghana and helps remind us of the extent of deforestation across the world (Figure 1). The 'Tropical House' offered an opportunity to feel the humidity of rainforests, and find out about plants that grow there.

Figure 1: One of Angela Palmer's 'Ghost Trees' at the National Botanic Garden of Wales. Photo © Size of Wales.

After learning more about climate change and the threats to rainforests through games, one pupil was moved to observe, 'We need rainforests'. Other pupils agreed, citing the fruits available and the forests' contribution to mitigating climate change, as well as the destruction of rainforests in order to release land for the growing of palm oil.

Inspired by the project and what they had learned, members of Ysgol Brynconin's Eco-club wanted to investigate palm oil further. They went through wrappers from lunch boxes to find items containing palm oil, and made a display in the hall, placing the wrappers in trucks to act as a visual reminder of the assembly they had presented to the school. Deciding that an assembly was not enough, pupils also presented their findings to the school governors. This contributed in a positive way to their oracy, particularly as for some of the pupils, Welsh is not their first language.

Meanwhile, at Ysgol Esgob Morgan in North Wales, Size of Wales ran workshops on deforestation as well as how different communities adapt to climate change. The pupils went on to find out where rainforests are located and looked at percentages of areas lost and areas saved, before writing to both their Assembly Member and MP to ask them to support rainforests.

All schools involved with Size of Wales are invited to raise money to help protect rainforests. Many take part in 'Go Green Day' each October. In 2016, the theme was Go Green Games, with games developed to help pupils learn about climate change and the threats to rainforests.

When pupils are encouraged to become involved and take action for climate change, they often come up with really good ideas. Perhaps the most perceptive quote came from a pupil; it shows just how we are connected with other parts of the world: 'I learned that rainforests are getting cut down because we just want more and more'. We can all learn something from that!

WEB RESOURCES

Size of Wales: *www.sizeofwales.org.uk*

Janie Pridham trained as a primary teacher and is the Education Co-ordinator at Size of Wales. Email: education@sizeofwales.org.uk

SUSTAINING KNOWLEDGE FROM KEY STAGE 2 TO 3

ROSIE GILLMAN

In this article Rosie reflects on how geography is taught in year 7, in order to provide help and guidance for primary teachers preparing their pupils for secondary education.

Transition in geography

The concern of geography education with the concept of sustainability is a long-standing one, incorporating issues as wide-ranging as water security, poverty alleviation and urban planning. However, of equal concern should be the sustainability of geography education itself and specifically the way in which students transition from key stage 2 to key stage 3. The concerns surrounding transition have been addressed in depth in educational literature (Bennetts, 1995; Carter, 1999; Chapman, 2001; Jones, 1999; Williams, 1997; Wood, 2001). Most researchers have focused primarily on the importance of ensuring that experience of geography from the final year of primary school (year 6) to the first year of secondary school (year 7) is one that builds on prior learning. Suggestions provide practical ideas of how to build links between students' learning at the two key stages. However, their success depends on whether schools have the time and resources to establish a close working relationship. The focus of this article is broader; it reflects on how geography is initially taught in year 7 so as to provide guidance to primary teachers on how best to prepare their year 6 pupils for the rigours of secondary geography education.

Introducing geography in year 7

The material for this article is derived from my own experience teaching geography to year 7 students in an academically high-achieving comprehensive in Hertfordshire. The school has a mixed intake from more than 90 feeder primary schools, with students arriving in their first geography lesson with mixed experience of the subject.

Prior to the 2016/17 academic year, our geography department began year 7 with the topic 'Geography in the news'. This was intended to contextualise students' prior learning in light of current affairs, and it worked well with the most able students and those who watched or read the news regularly. However, as a department we felt that the topic lacked focus on the skills and knowledge students need to develop in order to become successful geographers. Therefore, for this academic year we implemented a new introductory topic: 'What is geography?'. This comprised three initial lessons (Figure 1) followed by a baseline knowledge test.

We felt that this approach to initial KS3 geography education would ensure that not only would all students be at the same level of basic geographical knowledge, but also, from the outset, students would be developing the skills that would enable them to become more confident and able geographers as they progressed through KS3 and beyond. Our decision was taken in light of the growing emphasis within the new GCSE and A level specifications on geographical skills such as fieldwork, annotation, map-reading, statistical analysis and qualitative research. We felt that the more we could develop these skills in students in KS3, the better prepared they will be for their implementation at GCSE and A level. As such, our focus reflects a 'building-block' approach that promotes a deeper, more sustainable understanding of both geographical content and skills.

Reflections on the 'building-block' approach

Preliminary knowledge-building

The feedback we received from year 7 students on their initial geography education was very positive. Summative and formative assessments from the first two lessons reflected students had developed a solid understanding across the ability range of geography's three key strands (physical, human and environmental) (Figure 2) and the skills a geographer needs (Figure 3).

Students were asked to identify and recall a definition of geography, which was then built upon through the introduction of key words. We found that a simple key word test worked well in introducing students to some of the concepts and skills that they would encounter in their geography lessons. Crucially, focusing strongly on a definition of geography and its three inter-related components ensured that all students had a confident grasp of what the subject entails.

Addressing misconceptions

Students completed a mystery activity as a way of identifying the unique skills and knowledge that geographers bring to the understanding of events and processes. In the activity, students visited four different 'information stations', with extracts of research from historians, religious studies scholars, mathematicians and scientists as to what caused the decline of the population of Easter Island. Students wrote down key pieces of evidence and then discussed as a class how geographical skills can help reveal additional evidence. We asked them to use these skills to explain how the mystery was geographical through a short written paragraph in their exercise books.

The activity was successful in helping students to identify how geography can be used alongside other subjects to understand past and current physical and human phenomena; and all students were able to write a solution to the mystery using their collated evidence. This lesson helped students to identify geographical skills amongst those of other subjects; particularly appropriate given that many students had studied geography at primary school as part of broader 'topic work' which incorporated a range of humanities subjects.

Lesson title	Learning objectives
What is geography?	Define the term geography Describe some geographical concepts Explain what skills a geographer needs
What links does geography make?	Describe and explain how geographical topics can be interconnected Explain how geographical knowledge can help you become a better geographer
How can I study like a geographer?	Describe how geographical understanding helps us to understand the world

Figure 1: Initial mini scheme of work for year 7 geography students.

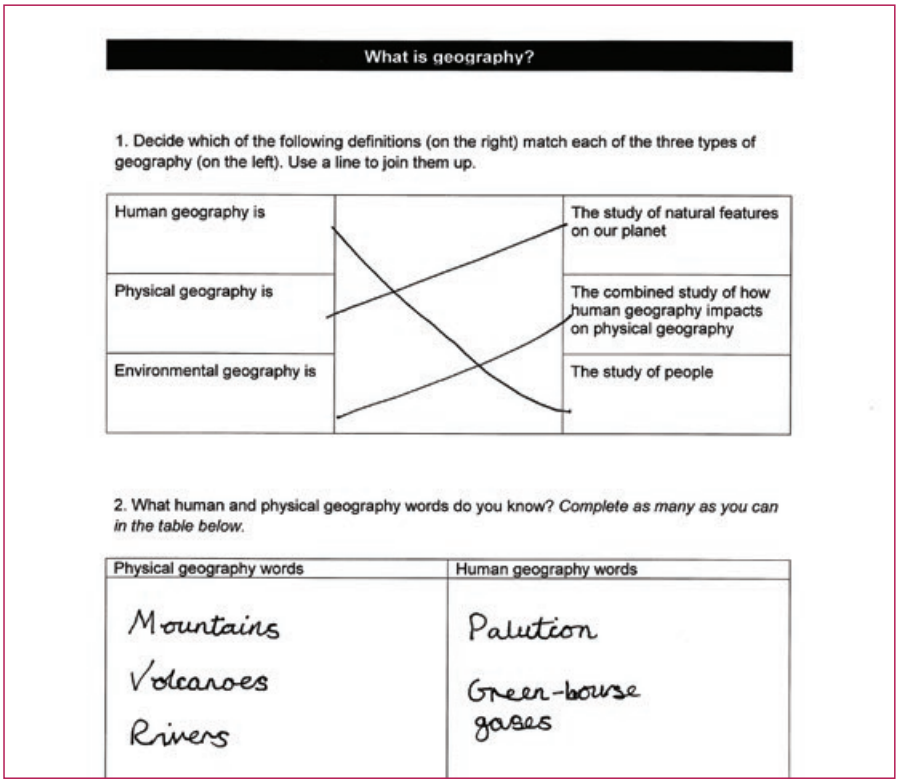
Baseline testing

Our lessons concluded with a baseline knowledge test that differed from those used previously, which had graded students by percentages and, in some cases, left them feeling less confident about their geography learning as a result of a low score. Our baseline test required no revision of key words or facts, instead students were asked to write their response to the statement 'Geography is only about maps and colouring in'. Their responses enabled us to assess both their existing geographical knowledge and how they had incorporated the lessons' learning into their understanding of what geography is. The test was evaluated by identifying where students are on the school's progress levels of Foundation, Competent, Accomplished, Advanced and Exceptional. As such, this test provided students with positive feedback on their initial geography learning and gave the teachers an invaluable insight into each student's understanding.

Suggestions for KS2 transition preparation

The initial KS3 lessons emphasise the growing importance within secondary geography education on both knowledge and skills to ensure student progress. With the ever-increasing pressures in KS2 to focus on numeracy and literacy, particularly in year 6, it is unreasonable to expect primary teachers (including geography specialists) to radically overhaul their geography schemes of work. However, it is important that, as much as possible, the emphasis within geography work at KS2 also seeks to develop pupils' knowledge of what geography is. This could include:

- encouraging pupils to apply their understanding of the three strands of geography, whether as part of a dedicated geography lesson or as part of broader humanities topic work (it could include, for example, making reference to recycling as being part of environmental geography, or to a local river study as being part of physical geography)
- employing map-skills (such as identifying features on a map or measuring distance) as part of any topic work that includes an understanding of specific places and locations
- developing pupils' enquiry and evidence-gathering skills through the use of mysteries
- using mathematical skills to help pupils to interpret and construct simple bar charts to compare, for example, population size in different countries
- simple use of GIS through the use of programmes such as Google Earth, to help pupils to identify global locations and describe these in relation to the UK.



What is geography?

1. Decide which of the following definitions (on the right) match each of the three types of geography (on the left). Use a line to join them up.

Human geography is	The study of natural features on our planet
Physical geography is	The combined study of how human geography impacts on physical geography
Environmental geography is	The study of people

2. What human and physical geography words do you know? *Complete as many as you can in the table below.*

Physical geography words	Human geography words
Mountains	Palution
Volcanoes	Green-bourse gases
Rivers	

Figure 2: Measuring understanding of geography's three key strands.

By incorporating these and other fundamental geographical skills and basic geographical knowledge throughout KS2, students start their year 7 geography education with confidence and recognise the infinite value and usefulness of the subject. The pupils will also carry with them an enthusiasm for the subject, built upon the firm foundation of geographical understanding developed at primary school, both through specific geography teaching and through topic work that engages with geographical ideas.

References

Bennetts, T. (1995) 'Continuity and progression', *Teaching Geography*, 20, 2, pp.75–9.

Carter, R. (1999) 'Connecting geography', *Geography*, 84, 4, pp. 289–97.

Chapman, S. (2001) 'Researching cross-phase liaison between key stages 2 and 3', *Teaching Geography*, 26, 3, pp. 122–6.

Jones, B. (1999) 'Continuity in the key stage 2-3 geography curriculum', *Teaching Geography*, 24, 1, pp. 5–9.

Williams, M. (1997) 'Progression and transition in a coherent geography curriculum' in Tilbury, D. and Williams, M. (eds) *Teaching and Learning Geography*. Abingdon: Routledge, pp. 59–68.

Wood, P. (2001) 'Bridging key stages 2 and 3', *Teaching Geography*, 26, 1, pp. 40–2.

Wood, P. (2006) 'Building on young people's experience of geography in primary schools' in Balderstone, D. (ed) *Secondary Geography Handbook*. Sheffield: Geographical Association, pp. 488–95.

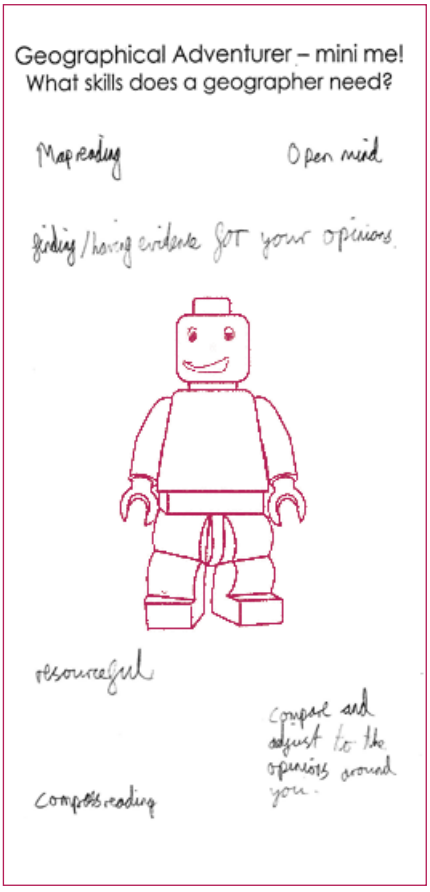


Figure 3: Gauging knowledge of the skills a geographer needs.

Rosie Gillman is Teacher of Geography at Dame Alice Owen's School in Hertfordshire.

PRIMARY GEOGRAPHY IN PRACTICE

This page offers ideas for using the contents of this issue of *Primary Geography* in practice in your classroom

Article	In practice
Inspiring the next generation	• Register for the scheme on the WWF website • There are loads of resources online and that schools can request to help develop the sustainability agenda in school • If your school does something amazing for sustainability or the environment why not nominate them for the Green Ambassador Awards?
Power to the pupils	• Register on your respective Eco-Schools website to access the audit tools, resources and support from the Eco-Schools Team • Share your successes on your school Twitter Feeds to showcase good practice to other schools • Move through the Eco-Schools process of Bronze, Silver, Green Flag and Platinum Schools
Rainforest the size of Wales	• Check out the Size of Wales website for ideas and links to develop the sustainability agenda in your school • Book a visit from one of the team (Wales only) to deliver workshops in your school or setting • Hold a fundraising day to help save an area of rainforest bigger than the size of Wales!
Pryd a mwy or shared meal and more	• What is special about your area? • How could you conserve local traditions or foods to make them sustainable for future generations? • Hold an inter-generational celebration event or project to bring the community together and to foster community cohesion
Sustainable living at our Special School	• Have a look at some of the examples from Ty Gwyn: how could you implement similar strategies or ideas in your school or setting? • Think small – small steps lead to bigger ones and everything helps to make a difference! • How can you keep the sustainability agenda as real and as practical as possible?
Critical thinking to promote sustainability	• Consider ways in which you can introduce ideas and concepts about sustainability in both curricular and extra-curricular activities – develop geographical enquiries with sustainable themes, such as reducing plastic bag, food and water waste • Use sustainable themes as cross-curricular links. Create a 'pupil pipeline' to show how far many people have to travel to get their water supply, developing mathematical skills alongside their geographical understanding • Develop collaborative skills by encouraging pupils to participate in a sustainable project such as building composters, which also serves to embed their understanding of sustainability issues
Sustainable futures	• Use pupils' developing journalistic skills and vivid imaginations to create newspaper stories about the future, ensuring that they are aware of what a sustainable future may look like and how we can work together to make it that way • Encourage empathy in envisaging what it might be like to live 30 years from now and what and who they would need to consider to do so • Ask pupils to think about where the resources that they need in order to live come from and where they may come from in the future. This will help them to think about how we source resources and how we might sustain them in the future.
What lies beneath	• Think of a project that you could do to engage pupils with your local area, something that makes that area special and different, that is unique to where you are, giving the pupils a sense of their own geographical identity and belonging • Develop their locational knowledge by identifying places that have a meaning and relevance rather than learning about somewhere that they have no connection to • Look at the place name of where you live and what its meaning is and how that might have changed. This will explain much about the place where you live • Consider how our use of resources has changed over the years and how it might change in the future. What implications might this have for the kind of geography that we need to understand?
Sustaining school gardens	• Could you establish a school garden? What geographical knowledge and understanding would the pupils need to have in order to do this? • Where would you locate your school garden and why? • Consider how you could most effectively sustain and maintain your garden
Sustaining knowledge from key stage 2 to 3	• What is the geography like in Foundation Stage at your school or your feeder school and how might this impact on what the pupils in Y1 learn? • Make contact with your local secondary school and find out what the pupils will be doing in Y7 and how you might be able to support that • Could you have some joint lessons with the secondary school, e.g. some of the Y7 pupils come and do a small-scale project with some Y5 pupils?

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Geographical Association

GA Annual Conference and Exhibition

Sheffield Hallam University, Thursday 5 – Saturday 7 April 2018

For the theme of the 2018 Annual Conference I would like us to reflect on geography in the real world, and how its application affects our daily lives.

As I write this I am connected to a global network linking the physical, human and virtual worlds: I use a laptop from China powered by electricity generated from various sources; I drink coffee from South America; I track a delivery that tells me I am 'stop 12' in a carefully mapped route; I email this text through an invisible network of servers located around the world.

While we may recognise geography's ubiquity, we need to make young people and the wider public more aware of the role that geographical knowledge and skills play in the real world. This Conference will explore how we can share with a wider audience the real-world geography that surrounds our everyday lives. Whether we like it or not, we are all geographers.

Nick Lapthorn, GA Senior Vice President, 2016–17

Get involved

If you are interested in proposing a session for inclusion in the Conference programme please e-mail Lucy Oxley (loxley@geography.org.uk) before the end of May 2017.

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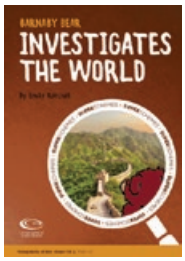

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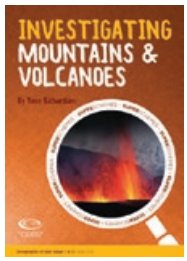

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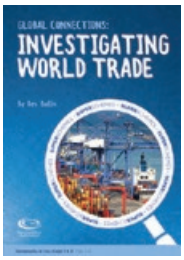

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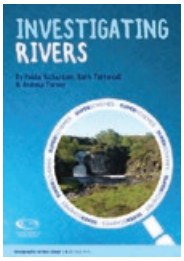

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