

GET IN THE PICTURE ABOUT CLIMATE CHANGE

PAUL SPEAR

How can you stimulate your pupils to use their thinking and questioning skills? As Paul shows, you can challenge them to dive into an image! Images offer a great starting point for investigations into climate change.

Ways of seeing

Why did I use images rather than information, recounts or even news articles as a starting point in my investigations? The answer lies with John Berger's *Ways of Seeing* (see web panel). To some extent, the title of his book describes my approach to teaching. What I really love about it is how Berger takes an image and tells the story behind it. Using an image to stimulate thinking and construct meaning struck a chord with me and I have used the approach in many subjects. However, history and geography particularly lend themselves to this teaching style: using images is a vital part of graphicacy and a life skill (Mackintosh, 2011).

Promoting thinking skills

Why are images so effective at promoting pupils' thinking skills? They are instantly enfranchising and inclusive: using a picture offers all pupils the opportunity to step into context and imagine they are in that place. Reading a technical text or a long recount about climate change can create barriers to some pupils' engagement, whereas most pupils enjoy examining pictures. They can offer opinions on or see possible narratives in an image, and do not need to have strong reading skills or be good at analysing written information.

Research into use of images

In 2015/16 I took part in action research about the use of images in the classroom, during which I was able to explore in more detail the variety of ways of using images to stimulate pupils' thinking and enquiry skills. I collected pupils' work and recorded their responses (see web panel).

I have used many techniques to elicit thinking using images. One that works well is to ask pupils to draw themselves into an image and then imagine what they

can hear, see, smell, taste and feel. Pupils will often see things that are imperceptible in the image, but this demonstrates they are starting to think more widely about issues that the image shows. Often they start asking questions that lead to a more detailed understanding of the context. This then becomes a spur to carry out research on the topic using the questions the pupils formulated. As a result, they become far more engaged with finding the answers.

Climate change and environmental issues

I planned a unit that dealt with climate change and environmental issues in conjunction with Sara Abbas at Mulgrave Primary in Woolwich. (The opportunity to work in collaboration with other schools was a rewarding experience.) I learnt a great deal from Sara on how to plan a unit that uses the following two approaches, and about how asking questions within these contexts can provide pupils with a focused lens through which to conduct their research. We looked at:

- conflicting arguments, focusing on how media can persuade us to occupy a certain viewpoint, and
- local, national and global contexts.

I wanted to use images to get the pupils thinking about locational knowledge and the effect of climate change on places in the future. First, pupils learned how to use an atlas to acquire locational knowledge. They then spent time understanding how to create maps and atlases of their own using Digimap, OS maps and atlases (see web panel), and used Google Earth to zoom in on an area, which enabled them to research and understand what physical details they needed to add to their maps. Next, the pupils were able to use their knowledge of using and interpreting atlases and maps to create a map of an area of their choosing.

This in itself was an interesting activity and we could have spent some time discussing how the pupils chose

the information they had identified as important enough to appear on their map as well as how they chose to represent it. However, my main focus here was how the use of images can stimulate thinking about environmental issues.

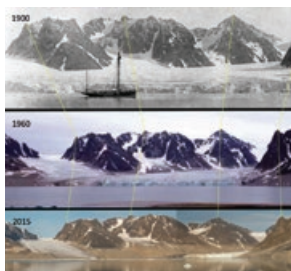
Next, I showed the pupils images, each of which related to climate change issues, and introduced the images within the context of understanding biomes. The images comprised pictures showing glacial retreat in Antarctica; deforestation in a tropical rainforest; charcoal burning and deforestation; and a Polar bear roaming a waste dump on the outskirts of a town (see web panel). I asked pupils to think about the questions and discuss them, first in pairs then in groups. Pupils were asked to imagine they were in the picture and to record their thoughts on sticky notes, which they stuck to the picture.

Pupils provided strong written responses to the images (Figure 1), which spurred them on to investigate what was happening. The pupils researched the issues around the different possible effects of climate change and they began to theorise about what might happen in the future to the places they had investigated.

I asked the pupils to think about the maps they created previously: How would these change in light of the image they had looked at and what their subsequent further research had told them? Then they were to think about the places they had investigated and create a map of these locations 50, 75 and 100 years in the future. We used the Thinking Actively in Social Context (TASC) wheel (see web panel) to structure our approach to map making and pupils designed maps that showed their thoughts.

Pupil responses

Looking at the pupils' responses to the pictures, the work motivated them not just to further research, but also to plan their vision of future places. It was also interesting to note that it was those pupils who are often most reticent to contribute in class, or who find new concepts challenging, that offered the most enthusiastic comments relating to the images. I asked them to evaluate their learning, here are some of their responses:



Glacial retreat.
Photo © Andreas Weith.

'It's interesting that things can change very fast.'
'How does the ice melt and why?'
'Does this only happen in Europe? How can we make this stop? Does it affect us in any way?'
'Does this happen in other cold biomes?'
'Climate changes (affect) everything; snow falling, icebergs melting.'
'The interesting part is that it has changed each year.'
'The world is changing all the time and many of the things we do around the world is affecting physical geography.'
'I want to find out why this is happening. It's interesting what's changed since 1900 – 1960 – 2015.'



Deforestation in a tropical forest.
Photo © Jami Dwyer.

'Who destroyed it? Why is it all destroyed? The thing that is interesting is that the background is good but the front isn't!'
'I want to find out who cut the trees down. It's interesting about how some of it is alive and some of it is dead. I feel this is not right and strange.'
'I think they took the picture to show our world is being destroyed.'
'I want to find out if there is a better way of obtaining wood without destroying the wildlife.'
'What did this place look like a decade before?'
'I feel angry.'
'Why would you do this if you knew animals live here?'



Charcoal burners.
Photo © Kelberul.

'I feel half dead because of the atmosphere. I want to find out why we are destroying this place.'
'I can smell smoke – I would want to find out what is happening here.'
'I would want to find out what has happened here? Why has it happened?'
'I can hear the wind blowing in my ear. I can smell burned down wood and smoke. I can feel the heat blowing on my hands.'



The polar bear in an urban environment. Photo © Maartenrus from nl.

'They took this picture to show how odd it is to have a Polar Bear in a dump rather than a Tundra biome.'
'I want to know why this Polar Bear is here.'
'People took the picture because they want to show everyone what happens. The question I want to ask is how can we let this happen?'
'What is it doing there? It is the wrong climate.'
'I want to find out why some polar bears need a biome that is just right for them. Why is it vital?'

'I have learnt more about global warming and what will happen in the future.'

'We think that there will only be bits of the rainforest in 100 years.'

'I learnt that climate change can affect Earth's atmosphere.'

'I have learnt that our world will change. Maybe not for the good of it. We need to do something to make this situation better.'

'I have learnt that global warming is affecting the North Pole because the ice is melting because the climate is getting warmer.'

'I have learnt that Brazil's trees are very quickly getting chopped down.'

When reflecting on their comments, I realised that the images had really encouraged the pupils to think about physical changes to our world. As one pupil said: 'I have learnt that physical maps rarely change, but when they do it is quite drastic'.

Conclusion

Geography teachers should consider using pictures to get a thinking exercise or enquiry started. With the demands of the curriculum, this approach offers a way to make pupils look more deeply into a question and use thinking skills in representing what they have learned.

Reference

Mackintosh, M. (2011) 'Graphicacy for life', *Primary Geography*, 75, pp. 6–8.

WEB RESOURCES

John Berger's 'Ways of Seeing':
waysofseeingwaysofseeing.com/ways-of-seeing-john-berger-5.7.pdf
Download responses to using images in learning: www.geography.org.uk/pg
Download a PowerPoint of the images used: www.geography.org.uk/pg
TASC wheel: <https://www.tes.com/teaching-resource/thinking-actively-in-a-social-context-wheel-guide-6321271>

Paul Spear has been teaching for 19 years, and currently leads Maths and the Creative Curriculum at Our Lady's Catholic Primary School, Dartford, Kent.

Figure 1: Pupil responses to images of climate change issues.