

Primary and Secondary School Design Workshops



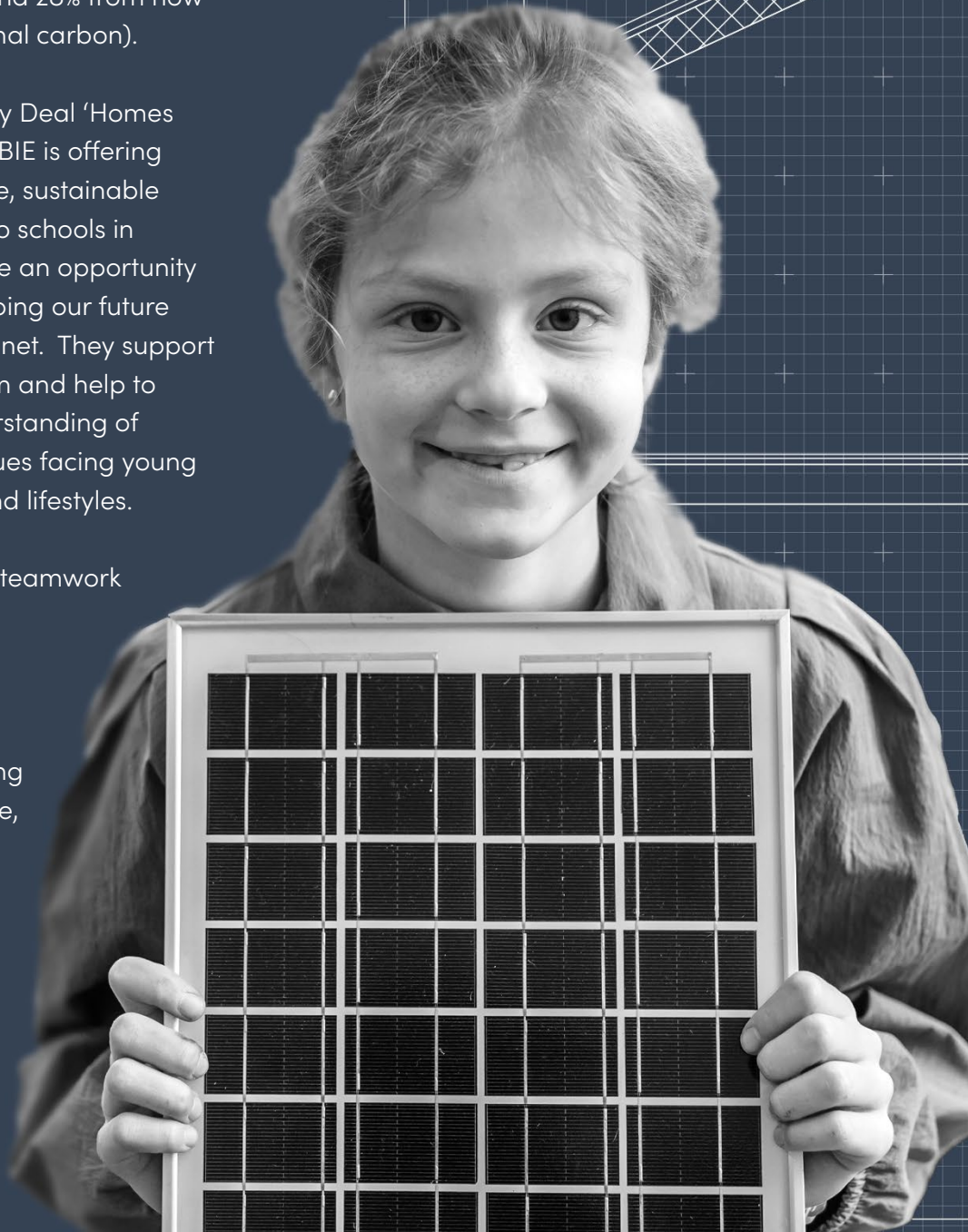
Introduction

Would your school like a free design and green skills workshop?

A crucial part of securing a greener future for Wales rests with how we design, construct and manage our buildings. 40% of carbon emissions come from the built environment – 11% from how we build (embodied carbon) and 28% from how we run our buildings (operational carbon).

As part of the Swansea Bay City Deal 'Homes as Power Stations' project, MOBIE is offering free, design workshops in home, sustainable development and green skills to schools in South and West Wales. They are an opportunity for students to think about shaping our future housing and protecting our planet. They support STEAM learning and curriculum and help to promote awareness and understanding of environmental and societal issues facing young people and their future lives and lifestyles.

Learner development includes teamwork and team building, leadership, delegation, research, design, communication, presentation and time management. The workshops cover topics including what is a home, climate change, zero carbon homes, housing innovation and technology, sustainable building methods and materials, renewable energy and careers in housing, the built environment and green technologies.



Homes as Power Stations (HAPS)

The pioneering HAPS project will integrate energy efficiency design and renewable technologies into new homes and the retrofit of existing homes. It will facilitate the adoption of renewable technologies in at least 10,300 properties (7,000 retrofit, 3,300 new build) within five years throughout the Swansea Bay City Region. This will tackle fuel poverty while helping residents save money on their energy bills. The project includes skills development and education activities. <https://www.swanseabaycitydeal.wales/projects/homes-as-power-stations/>

Workshops

The way we live is rapidly changing and creating social, working, lifestyle, environmental, technological and sustainability changes and challenges. In designing for future homes and master planning the communities in which we will live, we must meet these challenges head on and use new technology and techniques to help us.

The workshops introduce young people to the importance of home. What is a home, what does it do? Who lives there? How do they use it? Where is it and how do we create new homes and communities in these places?

The workshops use practical design and/or placemaking exercises to help students appreciate user's needs, key design principles and how to design within geographical constraints. They emphasise the importance of homes and buildings in helping us to address climate change and other environmental challenges. They can open up young people's eyes to the world of the built environment and introduce the range of roles that are needed to deliver the homes, buildings and communities of tomorrow.

They ask future designers and creators of the next generation of housing, to consider the issues and present solutions to our housing challenges. They are particularly relevant for students studying geography, Design and Technology and other social and environmental disciplines.

Taking part in our free workshops will help stimulate students' creative thinking, informing them about home and environmental issues and inspiring great home designs that can help us reduce our environmental impact. MOBIE and volunteers drawn from industry, Further and Higher Education students and recent graduates will help guide and prompt your students through the issues and help inspire their designs.



‘What do we want from future homes and communities?’

Your students will work together, in small groups, to consider some of the following questions, highlighting their ideas using the materials provided and later sharing these for discussion and feedback with the class. The workshop will help them to focus their design thinking and to answer the following questions:

1. What do you want from future homes in your village, town or city? Who will be living in these new homes – will they for instance be small or multi-generational families, young or old, or groups forming shared communal homes and lifestyles?

2. Where should your future homes be built? Show us where you want to locate your future home and tell us why you’ve chosen that location.

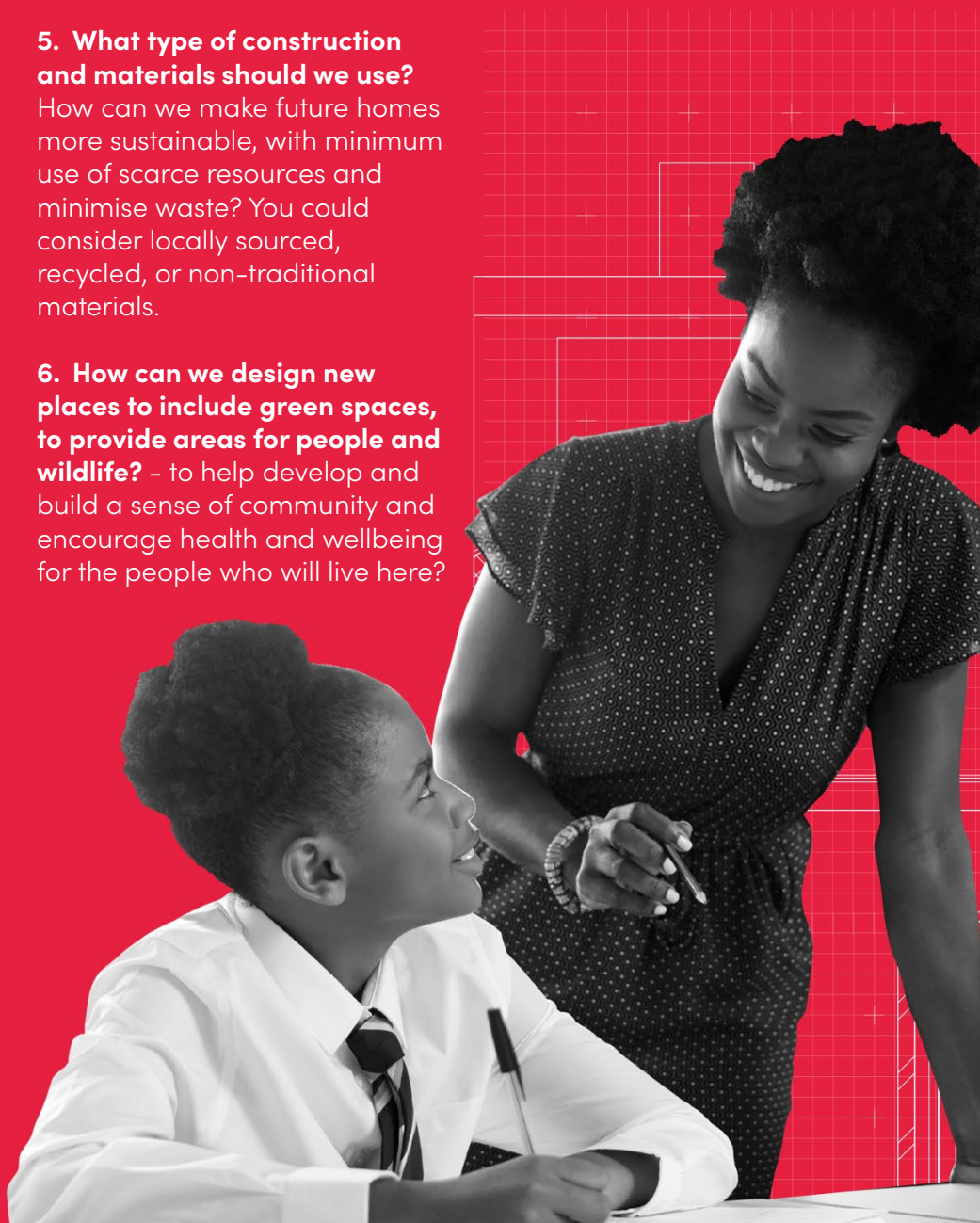
3. How can we design homes that are future-proof? – how can we ensure our homes are flexible and adaptable, for changing needs, lifestyles and technologies?

4. How can we design for climate change? – how can we reduce the need for energy in the construction and running of our homes, and then ensure that the energy we do use comes from renewable resources? How do we design for a changing climate?

5. What type of construction and materials should we use?

How can we make future homes more sustainable, with minimum use of scarce resources and minimise waste? You could consider locally sourced, recycled, or non-traditional materials.

6. How can we design new places to include green spaces, to provide areas for people and wildlife? – to help develop and build a sense of community and encourage health and wellbeing for the people who will live here?



Future homes must not just be pretty buildings, they must have meaning and heart. Home isn't just where you live, it is how you live. Home is always about people.

Students will have two to three hours for this workshop (timings and content can be varied to suit schools and timetables). After a short introduction to the challenge, issues to consider when designing a home, the first 30-40 minutes will allow them to work in groups to consider the questions above and brainstorm their thinking and solutions for a future home design. Students can use post it notes, paper and flipcharts to gather and prioritise their ideas - resources will be provided.

They will then spend 45 mins turning their ideas into something visual, either a home design, a plan of a neighbourhood or both. Volunteers will be on hand to help with any sketching and visualisation. Finally, there will be 35 minutes for groups to 'pin-up' their work and give brief feedback on the key features of the design, what influenced it, how the design evolved and their key learning point, followed by group discussion and feedback.

Show us the sort of home design that you would want for yourself and your future families. Remember to focus on the usability, buildability and sustainability of your future home. Compared with today's new houses, future homes must consume less energy and materials, produce less lifetime carbon and provide a good quality, well designed and high-performance environment for their occupiers. The home must not just provide high living standards, it should be attractive. Whilst designing for high volume construction you should, avoid the euphemism 'all new houses look the same'.

For more information or to book a workshop, please e-mail home@mobie.org.uk

"This has been the most interesting and inspired professional talk I have been involved in. Our students are inspired. This is a brilliant initiative and we will be participating in future challenges"

Stephen Webb, Senior Lecturer (Sustainable Construction and Civil Engineering), University College Birmingham

"The workshop sessions MOBIE have run have been fantastic and our young people have learned so much. You have all been so helpful and given our Year 6 students a lot of food for thought as they make some huge life choices in the coming year. I'm really grateful."

Simon Harrison, Barmston Village Primary School, Washington, Tyne & Wear

MOBIE

Ministry of Building
Innovation and Education

MOBIE is an educational charity founded by TV presenter and architect, George Clarke, to promote innovation in the design and delivery of homes. Its mission is to inspire, train and retrain the people who will deliver our future homes and places through exciting new technical and vocational courses, training programmes and schools' engagement.

MOBIE provides an educational pathway from schools to Further Education and Higher Education courses, ensuring that learning can be accessed and delivered at the levels that students want and industry needs. Our emphasis is on promoting skills in modern construction, including sustainability, digital competencies, offsite manufacturing and new materials.

MOBIE believes that today's technologies and innovative young design talent create incredible opportunities to construct a new built environment that promotes amazing homes. We want our learners to take full advantage of new technologies, to provide safer, healthier and greener homes that use less energy to build and run.

<https://www.mobie.org.uk>

