MAYOR OF LONDON

THE LONDON CURRICULUM KEY STAGE 2

REBUILDING LONDON



THE LONDON CURRICULUM

PLACING LONDON AT THE HEART OF LEARNING

The capital is the home of innovations, events, institutions and great works that have extended the scope of every subject on the school curriculum. London lends itself to learning unlike anywhere else in the world. The London Curriculum aims to bring the national curriculum to life inspired by the city, its people, places and heritage.

To find out about the full range of free resources and events available to London schools please go to: www.london.gov.uk/london-curriculum. I have someone I'd like you to meet... This is Fen the Fox from Fenchurch Street. He likes to creep about the city, To inspect and explore the buildings so pretty. Join him on his journeys to discover The secret world of London uncovered. Look out for him along your way, He might have something interesting to say!



HOW TO USE THIS PACK

This pack is designed to be flexible, to give you control over what you teach and when. The resources in this learning pack all sit within the Rebuilding London theme and promote crosscurricular teaching.

This learning pack includes activity plans which address learning objectives across the following subject areas:

- Dance (Topic: The building blocks of dance: Hand Jive)
- Computing (Topic: Building through coding)
- Geography; History (Topic: World War II and the Great Fire)
- Geography; Citizenship; Literacy (Topic: Observing and improving local buildings)
- Design & Technology; Geography; Science, Art & Design (Topic: Building a sustainable London)

This learning pack is designed so that you can pick and choose between the topics; you're free to teach whichever topics you'd like and in whichever order you'd like. Each activity plan displays an approximate duration time and highlights specific KS2 learning objectives relating to the activities described.

The activity plans relating to specific topics often follow on from each other, so we'd recommend that you teach these in succession. However, you may choose to teach different topics in whichever order you wish, for example, you might want to teach Building a sustainable London before The building blocks of dance: Hand Jive. The topic-based activity plans follow a similar structure to the lesson plans produced in our Key Stage 3 resources. There are three distinct phases of learning:

Discover

(Presenting and analysing background information relating to the given topic)

• Explore

(Contextualise learning from the Discover activities by exploring the concepts in action through a London-based visit)

Connect

(Task-based activities which connect the background information analysed in the Discover activities with the contextual understandings gained on the visit in the Explore activities)



REBUILDING LONDON

London's buildings are the envy of the world. From the historic Tower of London, founded in 1066, to the Shard, London's 95-storey skyscraper, our city is home to some of the most recognisable and most diverse buildings on the planet. Building has always been active in London, particularly after times of great tragedy. London's rebuilds after World War Two and The Great Fire of London were vast and required the help of some world-class Architects.

You'll learn about those fascinating rebuilds in this unit. You'll also learn about modern building in London, focusing on how we build for a sustainable future. Some of the most interesting modern building in London is happening through technology. You'll follow Fen on his quest to learn how to build basic coding sequences online and in the classroom. Finally, you'll explore the building blocks of Dance, through learning and performing London's own dance – the 'Hand Jive.' Join Fen on his exciting exploration of the buildings that make London the great capital that it is.



CONTENTS

DANCE

THE BUILDING BLOCKS OF DANCE: HAND JIVE

Discover	6
Explore	8
Connect	10
Resources	11

COMPUTING

BUILDING THROUGH CODING

Discover	16
Explore	20
Connect	23
Resources	24

GEOGRAPHY; HISTORY

WORLD WAR II AND THE GREAT FIRE

Discover	31
Explore	36
Connect	37
Resources	38

GEOGRAPHY; CITIZENSHIP; LITERACY

OBSERVING AND IMPROVING LOCAL BUILDINGS

Discover	57
Explore	59
Connect	60
Resources	61

DESIGN & TECHNOLOGY; GEOGRAPHY; ART & DESIGN; SCIENCE

BUILDING A SUSTAINABLE LONDON

Discover	77
Explore	80
Connect	84
Resources	86

OBSERVING AND IMPROVING LOCAL BUILDINGS

Topics:

CITIZENSHIP

GEOGRAPHY

LITERACY









Learning objectives



CITIZENSHIP

- To share their opinions on things that matter to them and explain their views;
- To take part in discussions with one other person and the whole;
 - To take and share responsibility
 - To feel positive about themselves (for example, by having their achievements recognised and by being given positive feedback about themselves).

Ż		
	XI -	
	₩	

GEOGRAPHY

- 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
- Collect, analyse and communicate with a range of data gathered through experiences of fieldwork that deepen their understanding of geographical processes
- Use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.



LITERACY

- Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas
- Consider and evaluate different viewpoints, attending to and building on the contributions of others.

1

OBSERVING AND IMPROVING LOCAL BUILDINGS

Discover

Activity 1: Observing and improving local buildings	57
Explore	59
Connect	
Activity: Planning a micro local intervention	60
Resources	
Fact sheet 1: Observing my city	61
Fact sheet 2: The process of building	65
Fact sheet 3: Micro local interventions – examples	68
Activity sheet 1: The process of building	72
Activity sheet 2: Observing my local area cards	73

OBSERVING AND IMPROVING LOCAL BUILDINGS DISCOVER

Architecture is everywhere

Duration: 60-90 mins

Setting the scene

In this unit, children will learn about the process of raising a new building or renovating an existing one. Firstly, the process of observing architecture will be explored, followed by children planning and creating their own micro local interventions.

Explain that architecture is everywhere; it surrounds us and interacts with us from the moment we are born. To do this you can discuss the architecture of their current location, in a classroom within in a school. Point out that earlier they may have been in a house or flat, later they may be in Library or gym or cinema. Architecture plays an important part in our lives and varies significantly across buildings. You should explain that the more aware and engaged with our environment we are, the more inspiration and excitement we can gain from it. We can then learn to be critical of our environment, to optimise it's effect on local communities.

Activity 1

Share the information in Fact sheet 1: Observing my city (page 61). This fact sheet is aimed at triggering a broader discussion on the importance of observation.

You should explain that the more aware and engaged with our environment, the more inspiration and excitement we can gain from the city and the more critical we can be if we discover things that could be done better or different.

Run through the three key components of observing architecture: the roof, the façade and the floor and share the images of example buildings contained in Fact sheet 1: Observing my city (page 61) with the whole class. Invite students to comment on the images they observe.

Enter into a whole class discussion to encourage children to share their thoughts on local buildings. Ask students to share examples of architecture in their local area that they particularly like or dislike. Try to show images of these buildings on the interactive whiteboard, to support students in building their observation skills. Ask students to describe the roof/façade/floor to the class, and the feelings that the buildings generate for them.



OBSERVING AND IMPROVING LOCAL BUILDINGS DISCOVER: ARCHITECTURE IS EVERYWHERE



Key questions:

- How many different buildings do you visit in a week? (e.g. house, school, library, swimming pool, church, mosque, cinema, museum, shopping mall...)
- Do you have a favourite building in your local area and in London?
- Do you have any particular building that you don't like or you would like to improve?
- Can you identify any specific details of your building (e.g. decoration, colour, texture) that you want to share with the class?



Activity 2

In this activity, students will get a sense of the number and variety of people involved in the building process.

Begin this activity by asking students to suggest groups of people that might be involved in the building process (e.g. designers, builders, council, businesses).

Then share Fact sheet 2: The process of building (page 65) with the students. Explain that the process of creating a new building, or renovating an old building, is highly complex and involves a large number of people. All of these people must work together to get the job done well.

Run through the groups of people involved in the building process. The words in bold may need some definition; ask students if they know the definition of the word before offering it yourself. Then distribute Activity sheet 1: The process of building (page 65) to individuals. They are asked to match the group with the description of their role. You might like to have pupils complete this in small groups, or individually. You also might like to keep the fact sheet up on the interactive whiteboard to support children in finding the answers.

The answers are:

- 1. Architects
- 2. Developers
- 3. Engineers
- 4. Land and property owners
- 5. Builders
- 6. Inspectors
- 7. Users/Local Community

OBSERVING AND IMPROVING LOCAL BUILDINGS EXPLORE

Investigating local architecture

For your Explore visit, we recommend that students go out into the local community to investigate their local area and identify opportunities for architectural improvement.

Remind students of the observing architecture process that they learned in the explore lesson – looking at roofs, façades and floors.

Explain that students will be asked to observe the buildings and open spaces on their walk to make judgements about how well the buildings are serving their local communities. They should be encouraged to identify opportunities for refurbishment or new buildings, with a specific focus on making the area more child friendly.

You will need to map out a 30–40 minute circular walking route from your school, that will give children opportunity to observe a range of different buildings and use of space. Ideally, this route could involve walking down a local high street or pass by a local park/grassed area. Before leaving the school, share the cards in the Activity Sheet 2: Observing my local area cards (page 73) with the pupils. Explain that, whilst on the walk, students will be asked to place the cards in areas they come across, to highlight opportunities for development. Students will place the 'thumbs up' card on buildings/in areas that they like, and will place the 'thumbs down' card on buildings/in areas that they dislike and think need improvement. You will then need to take pictures of these areas to use as discussion points when pupils are undertaking their connect activities.

If you wish, you could take A3 clipboards and A3 paper with you for pupils to sketch on and/or to write down their improvement ideas.





OBSERVING AND IMPROVING LOCAL BUILDINGS CONNECT

Planning a micro local intervention

Duration: 60-90 mins

Setting the scene

Share the information in Fact sheet 3: Micro local interventions – Examples (page 68). Run through the descriptions of each example with pupils and invite suggestions as to how pupils think these changes have had a positive impact on the local communities they serve.

Main activity

Explain that children will be asked to plan their own micro local intervention to improve an area that they observed on their explore visit.

Share the photographs taken on the visit on the interactive whiteboard. Run through some images that depict areas/ buildings that pupils liked, and others that they disliked.

Use the key questions below to facilitate the discussion.

- Why did they like/dislike this area/ building?
- What makes this building/area appealing (e.g. use of colour, texture, materials, shape)?
- What do they think could do to improve the building/area?
- How might you go about planning an improvement?

Then explain that pupils will be asked to choose one aspect of their local area that they'd like to improve, and then plan that improvement. These improvements must focus on making the local area more child friendly.

You might like to share some suggestions for improvements to spark pupils' creativity. Some examples improvements are given below:

- Parking for scooters
- More trees/plants in the park
- A colourful bench in a dull, dark corner
- A portable shop e.g. ice cream/sweets/ library
- A moving garden
- A vertical mini-playground

You might like to group children to undertake this activity, or you might like to have them work independently.

Ask children to put together their ideas on a folded A2/A3 Booklet or A2 cardboard poster, taking time to add colour and describing the materials and feelings that their project will generate. They should create a colourful and informative project, ideally annotated to highlight the key points.



FACT SHEET 1: OBSERVING MY CITY

Observing the buildings around us is very important. The more aware and engaged we are with our environment, the more inspiration and excitement we can gain from it. We can also learn to be critical of what we see if we discover things that could be done better or different.

This Fact sheet introduces you to the basic elements in observing architecture: the roof, the façade and the floor.

The Roof

The structure forming the upper covering of a building.

There are many different styles of roof; they may be flat, sloping or angular. You will find a range of different roof types through looking at the following in your local area: roof top gardens, swimming pools, cinemas, extensions, chimneys, office building and houses.

Fen's favourite roof is part of Santa Caterina Market in Barcelona. Santa Caterina Market was built in 1845 to provide the neighbourhood with food; it was constructed on the former site of the Convent of Santa Caterina. The designer of the roof is a female architect called Benedetta Tagliabue. This building was entirely renovated in 2005 but Benedetta's roof has brought the most joy to the local community because of the beautiful view that it gives people from their windows. The new design is all done with colourful ceramic tiles and wave-shape simulating a natural landscape.



SANTA CATERINA MARKET ROOF BEFORE THE RENOVATION



THE ROOF AFTER THE RENOVATION

FACT SHEET 1: OBSERVING MY CITY

Fen's favourite roof in London is the Golden Lane Estate rooftop, it reminds him of a landed spaceship.



GREAT ARTHUR HOUSE. GOLDEN LANE STATE. By Steve Cadman from London, U.K. - Great Arthur HouseUploaded by oxyman, CC BY-SA 2.0, commons.wikimedia.org/w/index.php?curid=8928600, Wikipedia Commons



THE LONDON CURRICULUM KEY STAGE 2

FACT SHEET 1: OBSERVING MY CITY

The Façade

The principal front of a building, that faces on to a street or open space.

The façade is often very specific to a local area, highlighting local materials or designs. Look out for windows with or without decoration, balconies, colourful doors, different materials such as stone, brick, ceramic, concrete, or even metal, elements such as informative plates, personal decoration, door knockers with a lion face etc.

Two of Fen's favourite building facades are the Natural History museum, because of the many intricate details in its design, and Central St Giles by the architect Renzo Piano.



NATURAL HISTORY MUSEUM, LONDON nikoretro 2013, Flickr



CENTRAL ST. GILES. ARCHITECT. RENZO PIANO Ben Freeman 2010, Flickr



FACT SHEET 1: OBSERVING MY CITY

The Floor

The floor is the bottom surface of the building.

Floors of buildings are often more interesting that they might first appear. Some interesting features to look out for include: sewers' lids and their different designs, blocks of glass to illuminate underground cellars or rooms, fossils in stone/marble floor tiles and ceramic carpets in front of doors. You might even discover pieces of floor art, if you look very closely, for example Ben Wilson's Chewing Gum Art on The Millennium Bridge. More examples of interesting flooring are abroad in places such as Lisbon, Granada or Barcelona.



BARCELONA FLOOR TILES Damian Entwistle 2014, Flickr



GRANADA FLOOR TILES Photographer: David Gramage



CHEWING GUM ART, BEN WILSON, MILLENNIUM BRIDGE, LONDON Kevan Davis 2012 Flickr





FACT SHEET 2: THE PROCESS OF BUILDING

Buildings are designed by Architects. However, the process to build a new building, or refurbish an existing one, involves many more people who need to work together to get the job done. Some examples of people involved in the process of building are given on this and the next few pages:

Architects

They are experts in the design process and they also supervise the construction process. The main aim of architects is to work for local communities, to improve the city providing comfort, beauty, safety and novelty. Before designing a new building, architects visit the site, take pictures of the surrounding area and meet local people and the community to understand what they want from the building. Architects also study the history of the place, learn about the climate, sometimes they meet local factories to use local material, learn about the urban rules, learn about costs and budgets and finally they use their creativity to imagine a new building, draw it by hand, make models and draw it using computers.



Land and property owners

Individuals or group of people who have land (with no building or planning yet) or an old building to be refurbished or knocked down in case it is seriously damaged. They can sell their property to developers or become developers themselves. Sometimes the land is owned by the public sector; councils own them so they can decide to build public services or green spaces for us to enjoy for free or very little money.



They are experts in structures,

forces. Engineers do calculations

to optimise the quantity and type of

look and cost of the building, while

keeping it functional and beautiful.

materials that we need to improve the

environment, sustainability, water and

electricity, fire safety and/or earthquake

FACT SHEET 2: THE PROCESS OF BUILDING

Developers

Individuals or, more often, companies who have the original idea and take the financial risk to create a new building (flats, offices, shopping mall, flats, houses...). They have the resources to start the process of hiring all the professionals who are necessary to create a new project, after that they hope to sell it and make a profit.

Builders

Architects draw plans with all the measurements and materials to be used, which they share with builders. Builders use these plans and usually work in large teams to build the project.



m X ns SF

Engineers

Building companies

They are the ones in charge of constructing the plans made by the architects once all the permissions from the council are in place. Lately, more and more building companies are caring about the environment than ever before, so they recycle and reuse as much material (wood, water, energy) as possible during the construction process.





FACT SHEET 2: THE PROCESS OF BUILDING

Inspectors

Technicians who are experts in construction and safety rules. They visit the building site to make sure that everybody is doing their best and the process is following the approved plans.

The user (you and your family)

Users are the most important part of the process to design and build a new building. All of us are users, our life happens inside or outside of many different buildings, so we must be able to enjoy them.





THE LONDON CURRICULUM KEY STAGE 2

REBUILDING LONDON CITIZENSHIP, GEOGRAPHY, LITERACY

FACT SHEET 3: MICRO LOCAL INTERVENTIONS - EXAMPLES

This Fact sheet shares some of Fen's favourite examples of refurbishment/new buildings that have improved the local area for people that live there.

Instant City by Archigram

Archigram was formed by a group of architects in the 1960s, who were based at the Architectural Association School of Architecture in London. They were a group focused on building for the future, often using technology and design to create projects to make the city a fun, artistic and enjoyable place to live in. The main members of the group were Sir Peter Cook, Warren Chalk, Ron Herron, Dennis Crompton, Michael Webb and David Greene.

Instant City was a project intended to bring a temporary cultural event or an art festival to small towns or villages which didn't have the same access to big events that we find in cities like London. They used hot air balloons and light structures to make open air cinemas and also had pop up art installations.





INSTANT CITY: ELEVATION

Peter Cook 1969, Collection du Fonds Régional d'Art Contemporain du Centre, Orléans, France; Photographer: Philippe Magnon

INSTANT CITY: SELF DESTRUCT ENVIRON POLE

Peter Cook 1969, Collection du Fonds Régional d'Art Contemporain du Centre, Orléans, France; Photographer: Philippe Magnon

FACT SHEET 3: MICRO LOCAL INTERVENTIONS - EXAMPLES



London Bridge's Fresh Air Squares initiative.



BENCH, TOOLEY STREET WMBstudio 2016

At London Bridge there is an example of a micro park which has been built across the area of two parking spaces. The bench in the space creates a place to relax and chat with your neighbours. It also measures air pollution!

Inflatable architecture.



Inflatables can change a place for a specific event or be part of the local area for longer. Some examples to explore include: The American group **Ant Farm**, the English architect **Mark Fisher**, the Japanese **Kengo Kuma** and most recently the Spanish **Dosis** with a pavilion in East London, American group **Pneuhaus** or the striking ColourScape in SECOND DOME, LONDON FIELDS © Dosis 2016

Clapham Common. All have interesting examples of inflatable structures used to host a family/art event or a music or cooking session in the street.



FACT SHEET 3: MICRO LOCAL INTERVENTIONS - EXAMPLES

Urban Fountains.

We love to splash and play with water in summer time- we have lots of them in London. There are fountains at **Granary Square** in King's Cross and also the very famous ones at **SouthBank Centre** or **Princes Diana memorial in Hyde Park** by Gustafson Porter + Bowman Architects. left: FOUNTAINS, SOUTHBANK CENTRE Ania Mendrek 2015, Flickr

top right: DIANA, PRINCESS OF WALES MEMORIAL FOUNTAIN, HYDE PARK.

bottom right: FOUNTAINS, GRANARY SQUARE sean_hickin 2014, Flickr







OBSERVING AND IMPROVING LOCAL BUILDINGS

FACT SHEET 3: MICRO LOCAL INTERVENTIONS - EXAMPLES CONTINUED



Pop-up architecture.

Fen really enjoyed **TREExOFFICE** (opposite), a pop-up (temporary) co-working space aimed at creative workers and community groups in Hoxton, designed to test innovative models to enhance public open spaces.

Another example of pop-up architecture was **The Shed**, a temporary extension for the Southbank Theatre in Westminster.



SOUTHBANK THEATRE EXTENSION; THE SHED Architect: Haworth Tompkins. Photograph: Marc Pether-Longman 2014, Flickr



TREExOFFICE, HOXTON. Architect: Tate Harmer. Photograph: Jack Hobhouse

ACTIVITY SHEET 1: THE PROCESS OF BUILDING

Match these seven descriptions with the group names below:

DESCRIPTIONS

1. They design the building and supervise the building process. Their main aim is to make the building safe, beautiful and interesting for the local community.

Name of group

2. This group of people usually have the original idea for the building and pay the money to have the building built. They hire all of the professionals involved and hope to sell the property to make a profit.

Name of group

3. They are experts in the structure of buildings. They do calculations to make sure that the best materials are used for the best price.

Name of group

4. These people own the land that the building is going to be built on. They often sell the land to the developers.

Name of group

5. This group use the plans given to them by the architects and often work in large teams to build the new structure.

Name of group

6. This group monitor and check up on the builders to make sure that the building is going according to plan and is safe.

Name of group

7. This group includes the people that use the building when it is built

Name of group

GROUP NAMES





ACTIVITY SHEET 2: OBSERVING MY LOCAL AREA CARDS





ACTIVITY SHEET 2: OBSERVING MY LOCAL AREA CARDS



CREDITS

The GLA would like to thank the following organisations for their contribution:

Our collaborators on the London Curriculum



A



LEGO® Education



Architectural Association

With thanks to Caroline Freedman

BEOPEN

Primary Author of the London Curriculum for Primary Schools **Dr Helen Saddler**

Design and illustration by www.thirteen.co.uk

Copyright

Greater London Authority June 2017

Greater London Authority City Hall The Queen's Walk London SE1 2AA

www.london.gov.uk enquiries 020 7983 4100 minicom 020 7983 4458

Imagery

All Lego images in *Building Through Coding* © Lego Education unless otherwise stated.

Images in *WWII and The Great Fire* captured from Digimap for Schools, an EDINA run subscription service at University of Edinburgh **www.digimapforschools.edina.ac.uk**. Images contain Ordnance Survey digital mapping data Crown copyright/database 2017. 1950s mapping courtesy of National Library

of Scotland.

The London Curriculum has made every reasonable effort to locate, contact and acknowledge rights holders and to correctly apply terms and conditions to content. In the event that any content infringes your rights or the rights of any third parties, or content is not properly identified or acknowledged we would like to hear from you so we may make any necessary alterations. In this event contact: **curriculum@london.gov.uk**

