

# Recycling and Waste

North London

Heat and Power project

## North London Heat and Power Project Schools Programme

### Overview:

The Schools Programme will be led by the North London Waste Authority and partner organisations who have been procured for the construction of the North London Heat and Power Project. This note provides an overview of a topic that could be delivered to Key Stage 3 students to stimulate interest in STEM subjects and construction/waste infrastructure related careers.



Image Credit: NLWA

**Aim:** Introducing students to the waste and recycling process, understanding what happens to their household waste.

**Description:** Understanding the waste process, exploring what happens to waste (waste materials, product, consumption and disposal/reuse) and the recycling process, including any difficulties of recycling waste.

### Session Content\*:

- Interactive presentation covering the following topics:
  - What happens to waste
  - Recycling and the waste process
  - Difficulties of recycling waste
- Research task for students to find out about an item in their household and how it is recycled and understand what happens to their household waste- this can be done prior to the session and their findings can be discussed within the session.

**Session Duration:** approx. 45 minutes.

*Content and duration of sessions are flexible and can be changed suited to what the school would prefer to be included. The school can enquire about these further with the North London Waste Authority. Sessions should be booked at least 2 weeks in advance.*

### Links to the National Curriculum

- **Physics:** Fuels and energy resources
- **Chemistry:** Earth as a source of limited resources and the efficacy of recycling
- **Chemistry:** The carbon cycle
- **Chemistry:** Production of carbon dioxide and the impact on climate.
- **Geography:** Use of natural resources
- **PSHE:** Flexible content

### Links to the relevant Gatsby Benchmarks

- **Benchmark 4** - Linking curriculum learning to careers
- **Benchmark 5** - Encounters with employers and employees

**For further enquiries and to book a session please contact:**

[info@northlondonheatandpower.london](mailto:info@northlondonheatandpower.london)

*\*To note, due to current Covid-19 restrictions, all sessions will be held virtually until all restrictions have eased.*

# Energy From Waste

## North London Heat and Power Project Schools Programme

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Image Credit: NLWA

**Aim:** Introducing students to the process of production of energy from waste, including comparisons to other sources of energy, and its environmental and climate benefits.

**Description:** Understanding the process of producing energy from waste, exploring its environmental and climate benefits as well as how the process compares to other sources of energy. This will include an overview of the EcoPark and Energy Recovery Facility being built as part of the North London Heat and Power Project.

### Session Content\*:

- Interactive presentation providing an overview of the EcoPark and Energy Recovery facility, including;
  - Role of the EcoPark including videos of the site and how it will operate
  - Energy from Waste process and its product
  - Climate and environmental benefits
- Research task for students to find out about existing Energy from Waste facilities and their environmental and climate benefits, students can complete this task prior to the session. During the session there will be an opportunity for students to debate or discuss climate change matters that are important to students relating it to waste and energy.

**Session Duration:** approx. 45 minutes.

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### Links to the National Curriculum

- **Physics:** Domestic fuel bills, fuel use and costs
- **Physics:** Fuels and energy resources
- **Chemistry:** The carbon cycle
- **Chemistry:** Production of carbon dioxide and the impact on climate.
- **PSHE:** Flexible content

### Links to the relevant Gatsby Benchmarks

- **Benchmark 4** - Linking curriculum learning to careers
- **Benchmark 5** - Encounters with employers and employees

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# Delivering a large-scale construction project

North London

Heat and Power project

## North London Heat and Power Project Schools Programme

### Overview:

The Schools Programme will be led by the North London Waste Authority and partner organisations who have been procured for the construction of the North London Heat and Power Project. This note provides an overview of a topic that could be delivered to Key Stage (KS) 3, KS4 and KS5 students to stimulate interest in STEM subjects and construction/waste infrastructure related careers.

### Links to the National Curriculum

**PSHE:** Flexible content

**Geography:** Economic activity in the primary to quaternary sectors

### Links to the relevant Gatsby Benchmarks

**Benchmark 5** - Encounters with employers and employees

**Benchmark 6** - Experiences of workplaces



Image Credit: Smartsheet

**Aim:** Introducing students to the project lifecycle of a major construction project, focusing of the variety of activities involved in a project of this type and size.

**Description:** Understanding the process of delivering a large-scale construction project, the stages of the project lifecycle as well as the various professions involved in the delivery.

### Session Content\*:

- Interactive presentation on:
  - stages of the project from inception/planning to design and delivery with real life examples to show students.
  - Talk through models used to design the site
  - Local community engagement
  - Sustainable construction practices
- Task for students to take a fictional project through the design and construction stages, including various scenarios that may occur in reality and that students would have to solve, ensuring the project is delivered on time. The brief can delivered during the session, students then go away and put together a proposal over a week and then present to the North London Waste Authority in a follow up session.

- Task for students to create a mock newsletter/poster for the public about the NLHPP and what the project is creating, this can be set as a follow up task from the session.
- Task where students try identifying sustainable materials or something similar in their household or close to where they live and conduct research on the sustainability of the material and how it is used for construction.
- There could be a potential in the long term to take students onto site to show them first-hand the processes being undertaken on-site.

**Session Duration:** approx. 45 minutes.

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## North London Heat and Power Project Schools Programme

### Overview:

The Schools Programme will be led by the North London Waste Authority and partner organisations including contractors who have been procured for the construction of the North London Heat and Power Project. This note provides an overview of a topic that could be delivered to Key Stage (KS) 3, KS4 and KS5 students to stimulate interest in STEM subjects and construction/waste infrastructure related careers.



**Aim:** Introducing students to the variety of careers opportunities involved in a project of this kind and size within the construction and waste infrastructure sectors.

**Description:** Providing career insights and job application advice to students.

### Session Content\*:

- Interactive presentation on careers insights, to include:
  - Inputs from a range of disciplines and job roles with a variation on the routes into careers.
  - Live link (or pre-recorded videos) to the construction site for interviews with those working on site across a range of roles including apprentices.
- Interactive session on job application advice including CV writing workshops and/ or mock interview practice.
- Virtual Careers Fair with an interactive presentation on the project roles and break-out sessions for various technical roles where students can ask questions.
- Potential for work experience opportunities once restrictions with Covid-19 have been lifted.

**Session Duration:** approx. 45 minutes.

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### Links to the relevant Gatsby Benchmarks

- **Benchmark 5** - Encounters with employers and employees
- **Benchmark 6** - Experiences of workplaces

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