

Drax

Invites schools to participate in its
Project Reinvent challenge
A STEM & Enterprise Competition

A £10,000 investment is available
to bring your idea to life!



Have you ever wanted to improve something?
Do you want to see your idea come to life
in your local community?

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About Drax

Drax Group plc is an innovative energy company that owns and operates the UK's largest power station in Selby, North Yorkshire, typically providing some 8% of the UK's electricity.

At Drax we have converted half of our power station through innovative engineering, using the very latest in biomass technology.

Biomass is the fastest, most affordable and reliable way to move away from the fossil fuels of the past to the renewable energy technology of the future. For over a decade we have been optimising biomass technology.

We are now a predominantly biomass-fuelled generator. 70% of the electricity we generate – enough to power Leeds, Manchester, Sheffield and Liverpool – is now produced using compressed wood pellets rather than coal.

Generating electricity with compressed wood pellets has a carbon footprint over 80% lower than coal, including processing and transportation.

We are one of the UK's largest producers of renewable power and Europe's single largest decarbonisation project – and we stand ready to do more.

With the right support we can continue to move to the low carbon fuels of the future, operating alongside other renewable and low carbon energy technologies, generating flexible, reliable, affordable power.

Why is Drax inviting Schools to take part in a STEM Schools Challenge?

Drax stands tall on the local landscape as a big employer and driver of the local economy. But it's our bright ideas that make us stand out. Now we want to take the same spirit of pride, working together and ingenuity that reinvented old coal generators into a reliable new source of renewable energy for the UK, and put it to use for our local communities. So we're fuelling talent and helping equip the next generation with the science and engineering skills they'll need to succeed.

That's why we have launched our plan for community investment - Project Reinvent, bringing new energy to the people and organisations that can change our local area for good.

As part of Project Reinvent, we want to inspire local students to use their science and engineering know-how to think up new ideas for improving their communities.

The Challenge Overview

1. First, you will set yourself up as a small project team that will specialise in providing creative solutions to meet community needs.
2. Then, we would like you to think of any existing projects, space, facilities or activities in your local area which you think your community may benefit from reinventing and improving.
3. Finally, we would like you to tell us how the Drax Project Reinvent and biomass stories have influenced your ideas and decision making for a real-life community project.

We're looking for the most creative, imaginative and real life ideas and above all else, the "wow" factor! Tell us about how you used new technology, science and engineering skills in your real life idea. The best ideas will go through firstly to our semi-final at Inspirations 2017, taking place 29th June 2017 with a select few invited to present at the Grand Finale which will take place at Drax Power Station in July 2017.

An investment of up to £10,000 through the Drax Community Fund will be available to bring the winning ideas to life.



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The challenge brief

Working as part of a small team, in the spirit of the theme Reinvent and linked to the business and values of Drax, students are invited to come up with a real idea that will benefit their local community and meet the challenges of our changing world. We want local students to use their science and engineering know-how to think up new ideas for improving their communities.

When deciding on your idea you may wish to consider the following to reinvent or reimagine existing projects or some other enterprising, new community initiative such as:

- Improve the quality of life for those in the community who are elderly or disadvantaged in some way
- Breathe new life into an existing community project or community facility or improve green or unused spaces
- Support a local charity that needs your help
- After school clubs – does your community have access to a Science and Engineering club?
- Recycling and waste management – we use low value wood that other wood-based industries such as construction, furniture and flooring might leave behind, to create our high density wood pellets. Is there anything in your community that could be reused or recycled for the benefit of your local community??
- Are there inventive ways to help those in your community minimise their energy consumption or tackle pollution?
- Is there a new service needed to benefit the community linked to some of the ideas above?

Remember the maximum budget for your idea is £10,000



The first task...

Working in teams of no more than six you need to decide on your team roles. Discuss what skills you might need for each role and then match your individual skills and strengths to the role descriptions. Pitch for roles you think you would be good at and ask other team members if they agree.

Project Director - Leads the working group and keeps them 'on task', advising, supporting and helping make key decisions. Brings clarity to the group and ensures that all elements of the project are met.

Project Manager - Leads the project in terms of ideas and direction. Provides a link between the Project Director and all other areas. Must provide clear information to each other area in terms of the progress and relevance of their work.

Designer - Works with the Project Manager to develop the look, feel and style of the idea.

Research Managers - Ensures that any major decisions that affect the project are thoroughly researched. Information is fed back to all areas of development to ensure that decisions are sound, based on facts and economically viable. The research manager will need to delve into the Drax story and share with the team, and ensure how it has influenced the decision is captured in the proposal.

Finance Director - Calculates the cost of the project. Must consider production and development costs of the project, present this in the proposal and ensure it is achievable within the maximum £10,000 budget..

Expert Advisor - who may have skills in one particular area e.g. charity work, active member of sports club etc.

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The second task...

IDEAS

Next, make a 'Mind Map' of your team's ideas that you think could benefit your community and that you could actually make happen. You will need to be creative but keep your ideas realistic. You must write down all of the ideas. At the end of this process you must have selected just one to work on. Don't forget to take inspiration from the Drax story and the way they have used technology to reinvent the power station.

Aim for something so different, so out of the ordinary, so special, that everyone in your community wants to be part of it!

You must write down all of your ideas and then, as a team, make a decision on which idea you will use and why.



IDEAS...

In your initial proposal to us you will need to include the following:

Overview: brief description of the content of your idea and who in your community it is aimed at. (Think of your community audience groups, i.e. parents, families, children, students, adults)

Communication: team name and logo, a name for your real idea – make sure it clearly identifies with the product / idea, and will be understood by your community audience. Develop a strategy to promote your project and persuade your community to become involved.

Stakeholders: provide a summary of how you have engaged with audiences in the local community to research and test your ideas, and the feedback / support you have received.

Design: how the idea will look/work – tell us about any new technologies you would use.

Benefits to users: who is your community, how does your idea meet the needs of your target group? Why your idea will benefit your community and why would they want to be involved?

Research: find out about the Drax Story and Project Reinvent - tell us how this influenced your thinking!

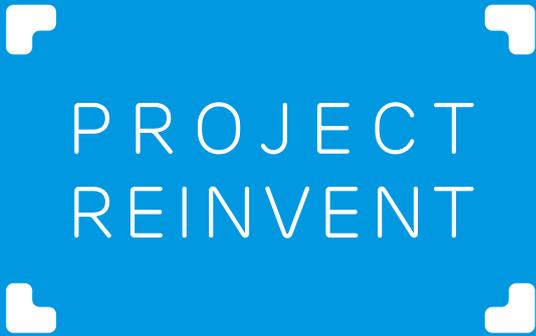
Finance: how much will your project cost to bring it to life and what funds will you need to develop it? If you were successful with your proposal tell us how you would sustain your project in the future.

Skills: what skills did you use when taking part in this challenge? Tell us about the science, engineering, technology, maths and other skills you used.

Real life: demonstrate to us that this project can be brought to life.

Support: ask friends, family, teachers and others for support and feedback on your ideas but show how this helped shape your plans.

Wow: show us the Wow Factor! What makes your project stand out?

The logo for Project Reinvent is centered on a blue background. It consists of the words "PROJECT" and "REINVENT" stacked vertically in a white, uppercase, sans-serif font. The text is enclosed within a white square frame that has rounded corners. The frame is formed by four white L-shaped corner brackets, one in each corner, pointing towards the center.

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The Drax Schools Challenge Guidance Page

Using either the template provided, or other method please submit your proposal to NYBEP.

- Stage 1:** Each team to submit their idea to NYBEP by Friday 28th April 2017
- Stage 2:** If you are successful in the preliminary round you will be invited to continue to develop your idea/design in readiness for the semi-final presentation taking place at Inspirations 2017, Yorkshire Air Museum, York, 29th June 2017.
- Stage 3.** A selected number of teams will be invited to pitch their ideas at the Grand Finale at Drax Power Station in July 2017.

Throughout the project you will be judged on your ability to demonstrate the following skills and attributes:

- How you used Science, Technology, Engineering and Maths
- Effective team work
- Problem solving
- Effective communication and presentation skills
- Decision making
- Showing initiative
- Planning and organisation
- Creative thinking
- Financial awareness

Good Luck!

Proposal

Names

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Group Name

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Summary

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Detail including drawings etc.

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Please return
to...

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