



Cluster Challenge Information Pack

The Cluster Challenge involves Classroom Challenge winners from the participating primary schools. The Cluster Challenge should be hosted at the secondary school and we suggest you involve older pupils as judges. Once you have held your Cluster Challenge, the winning teams information should be submitted to Glasgow Science Festival (GSF) through our Cluster Winners Online Form before the **18th March 2026** to secure your place in a semi-final. A member of the GSF team will then be in touch with information about the next stage.

[Cluster Winners Online Form](#)

Competition Rules

- Pupils compete in teams of two.
- Competition is open to P5 and P6 pupils.
- One hour to complete challenge, including preparation and planning.
- Pupils shouldn't see the challenge beforehand.
- Before starting to build the teams should sketch out and plan some ideas, so please ensure they have access to pencils and paper before the challenge begins.

The Challenge

The Cluster Challenge is set by the GSF team and can be found attached to this document.

Feel free to share any builds or designs with us on social media using #GSFCreatingEngineers or tag us @GlasgowSciFest on X or @glascifest on Instagram.

Judging

The Cluster Challenge can be judged by e.g. the teachers, teaching assistants, secondary school pupils or local organisations. We have provided a judging sheet at the end of this document, this is the same judging sheet used throughout all stages of the competition.

Certificates

The winners and runners-up of the Cluster Challenge will receive a certificate. A copy of both is attached to this document ready to be printed and filled in.



Deadline

The Cluster Challenge can take place at a time that suits your cluster. The deadline for submitting details of your cluster winners to GSF is **Wednesday 18th March 2026**. Please ensure your Cluster Challenge is held prior to this date to ensure enough time to submit your winners and secure your clusters place in the next stage.

A member of the GSF team will be in touch with the named primary school contact regarding information about the next stage.

Creating Engineers Kit Loan

Glasgow Science Festival (GSF) have a class-worth of kits available on short-term loan for a period of one week. Kits can be booked online via our booking system during the period **4th November 2025 to 18th March 2026**.

[Glasgow Science Festival Creating Engineers Kit Loan](#)

Where requested, please enter Cluster School name and Cluster person contact details, along with details of the person completing the form. No payment is required.

Next Stage: Regional Semi-Finals

Cluster winners will be invited to the regional semi-finals. Runners-up from larger clusters will also be invited to a regional final.

Once the Cluster Winners deadline has passed, the named Primary School and Cluster contacts of progressing schools will be contacted to invite pupils to the regional final. These are taking place throughout April & May in various locations.

Once applications have closed in November 2025, a member of the Glasgow Science Festival team will be in touch to confirm the date and location of your regional final, and whether your cluster has been allocated a runner-up position.

The final is taking place on **Wednesday 27th May 2025**. After the regional finals, the named Primary contacts of the progressing teams will receive further details of the event.

Contact Details

Any questions about the Creating Engineers challenge can be sent to sciencefestival@glasgow.ac.uk.



Cluster Challenge

Design a Playground

The Scenario

The council are building a new playground in your area and are looking for ideas for the equipment! You have been asked to design a new piece of playground apparatus which will be used by children in your town.

The Challenge

You have **ONE HOUR**.

Design and build a new and exciting piece of playground equipment. This can be anything from a climbing frame, slide, swing or roundabout (or even a combination or something brand new!) but must contain at least one moving part controlled via a handle and be sturdy enough for children to play safely.

The Specifications

Your design must:

- Be taller than one grey rod.
- Have at least one moving part controlled by a handle (e.g. spinning or swinging, but not freely moving independently).
- Be strong and stable enough to stand on its own.
- Be fun for the children playing!

Things to think of

- Remember to discuss and plan your design.
- What is your favourite playground ride? What would make it more fun?
- How will you make the moving parts?

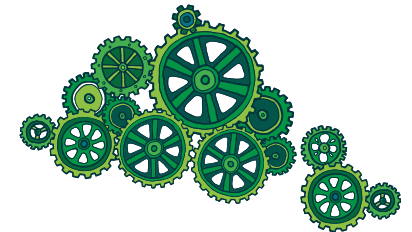
GOOD LUCK!



Creating Engineers Cluster Challenge 2026

Congratulations to the winners

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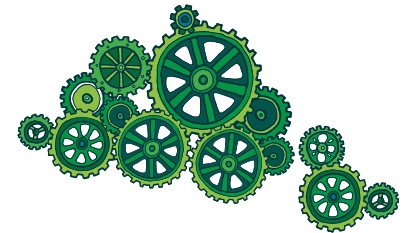




Creating Engineers Cluster Challenge 2026

Congratulations to the runners up

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Creating Engineers Judging Sheet

Pupil 1		Pupil 2	
Judging Criteria	Consider	Score	Judges Comments:
Presentation, Communication & Teamwork Max Points 25 Poor Average Good Excellent 1-6 7-15 16-21 22-25	- Did the pupils plan the model before building it? - Do they have drawings they can show, were they made before, during or after they started to build? - How well did the team communicate about their design? - Do they play to their individual strengths and use them to make a good team? - Do they work well together?		
Problem Solving Max Points 25 Poor Average Good Excellent 1-6 7-15 16-21 22-25	- Discuss the problems the pupils encountered during the design & construction stages of the model. - Did they overcome the problems methodically & analytically? - What ideas were tried before the final solution was adopted? - Have they shown a clear understanding of how to problem solve? - Did they work together on solving them?		
Operation & Function Max Points 25 Poor Average Good Excellent 1-6 7-15 16-21 22-25	- Have the pupils built an effective model that meets the criteria - interesting, novel and sturdy with moving parts? - Does it perform the intended function competently, could it be improved?		
Design & Visual Appeal Max Points 25 Poor Average Good Excellent 1-6 7-15 16-21 22-25	Has safety been considered, is it strong and sturdy? Review your overall impression of the model, is it visually appealing?		
Judged by:		Max Score: 100 points TOTAL	Any other comments: