

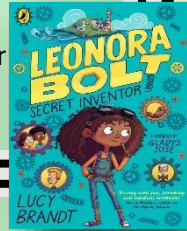
Homework Grid Summer 2

This term, Nightingale Class will have their homework tasks based on our exciting theme of Young Engineers: Structures. Over the next term, it is expected that children will complete a minimum of four tasks from those suggested below. Children are invited to show/talk to the class about these tasks throughout the week when there is time.

Read...

Leonora Bolt: Secret Inventor by Lucy Brant

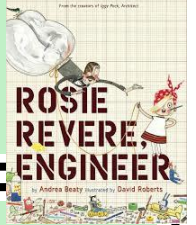
Amazing engineer who spends her days creating incredible inventions in her TOP SECRET laboratory, under the watchful eye of her terrifying uncle.



Read...

“Rosie Revere, Engineer” by Andrea Beaty

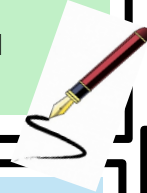
A great book about Rosie’s dream of becoming a great engineer using her room as a secret workshop.



Write...

Write an **instructional text** with a set of clear, numbered instructions for how to build a simple structure (a bridge, tower, shelter, etc.).

Include: materials list, diagrams, and safety notes.



Create...

Design and build your own structure, park or city using materials at home (e.g. cardboard, straws, Lego, paper). Think about how to make it strong and stable. Bring it into school.



Spend some time...

Help an adult fix something (e.g. garden fence, shed etc).
Talk about how the parts fit together and while you enjoy their company and sharing time together.



Calculate...

Design a triangular **truss bridge** on squared paper. Calculate:

How many triangles you used

The total length of beams (each square = 5 cm for example)



Research...

Choose a **famous structure** (e.g., The Shard, Tower Bridge, Eiffel Tower, la Giralda in Seville, La Sagrada Familia in Barcelona). Find out:
What materials it is made from and why those materials were chosen. Also, explain one engineering problem the designers had to solve.
Create a PowerPoint or a poster.



Investigate...

Find out how earthquake-proof buildings are designed and where in the world we can find them.

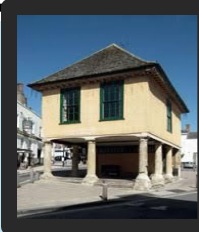
Draw or describe one clever features that helps them stay standing.

Visit...

Go on a **structure hunt** in your local area.

Look for: beams, arches, columns, trusses, frames, joints.

Sketch or photograph at least five and label the structural features.



Visit...

The **library** to find non-fiction books about structures and engineers. Bring it to the call or tell us amazing facts you have learnt about.