

Building a Pullman Train Car

Challenge Overview:

Design and build a model of a Pullman Train Car, the kind of luxury train car used in the early 1900s.

Challenge Statement:

Your mission is to design and create a scale model of a Pullman Train Car. You'll need to apply your math skills in measurement, fractions, and geometry to ensure your model is to scale and structurally sound.

Background/Scenario:

The Pullman Train Cars were like the limousines of trains back in the day, known for their luxury and comfort. They played a big role in train travel history. Now, it's your turn to bring a piece of this history to life by building your very own model.

Mathematics Connection (5th Grade Standards):

- **Measurement:** Use a ruler to measure materials for your model.
- **Fractions:** Apply your knowledge of fractions to scale down the dimensions of a real Pullman Car to your model size.
- **Geometry:** Use geometric shapes to design the structure of your train car.

Challenge Categories:

- **Design:** Plan out your Pullman Train Car, including its length, width, and height. Draw a sketch of your design.
- **Build:** Using materials like cardboard, craft sticks, and glue, construct your train car model.
- **Decorate:** Get creative and decorate your model to reflect the luxury of the Pullman Cars.

Submission Guidelines:

- Your train car should be no longer than 18 inches.
- Include a chart showing your math calculations for the scaled dimensions.
- Submit a sketch of your design alongside your finished model.

- Use recyclable materials where possible.

Judging Criteria:

- **Accuracy of Scale:** How well did you use math to create a model that accurately represents the real Pullman Car dimensions?
- **Creativity in Design:** How creative is your train car in terms of design and decoration?
- **Attention to Detail:** How much detail did you include to show the luxury of the Pullman Cars?
- **Mathematical Understanding:** How well did you demonstrate your understanding of measurement, fractions, and geometry?