

Ine | Measurement: Perimeter, Area and Volume of Sports Fields

Assessment Two | Forest Year 8 Mathematics



Learning Intentions: *Students are learning to...*

- Draw an Olympic stadium or sports field, ensuring that all dimensions are measured & accurately calculated to scale.
- Decompose/recompose compound shapes to find perimeters, areas, & volumes.

You are required to work individually to create a presentation to show the area, perimeter, and volume of three sports fields from the Olympic Games. You need to design and construct three Olympic sports fields, ensuring that dimensions are calculated to scale.

Due Date: 4:30pm, Friday 14th September (Term 3, Week 8)

Instructions for Your Assignment:

- Show your working clearly and in steps while calculating the perimeter, area, and volume.
- Scale should be clearly presented and measurements accurately represented.
- You can use Google Slides, Canva Slides, or Google Docs to display your assessment.
- Use reliable sources of information.
- All work must be in your own words. **DO NOT COPY/PASTE OR USE CHAT GPT-STYLE SITES.**
- Your presentation should be visually appealing and easily readable.
- You must submit your planning documents and any resources to MHOL.

Required Content

- Draw scaled diagrams of a Basketball Court, Badminton Court, and Swimming Pool on graph paper, using an appropriate scale.
- Include all the internal dimensions and foundational components to provide an accurate representation of each sports field/court.
- Calculate the perimeter, area, and volume of your scaled diagram and actual fields. You need to calculate the perimeter and area of every part and component of the field/court.
- Explain/demonstrate the relationship between the area, perimeter, and volume of scaled diagrams and actual fields/courts.

Maths Forest Assessment

Length and Area	You have shown some understanding of estimation and measurement of length and area using appropriate units on <i>sports fields & courts</i>	You have shown an understanding of estimation and measurement of length and area etc using appropriate units on <i>sports fields & courts</i>	You have shown a strong understanding of estimation and measurement of length and area using appropriate units on <i>sports fields & courts</i>	You have shown a comprehensive understanding of estimation and measurement of length and area using appropriate units on <i>sports fields & courts</i>
Units of measurement	You have shown some understanding of <i>converting between measurement units</i> on <i>a scale diagram</i>	You have shown an understanding of <i>converting between measurement units</i> on <i>a scale diagram</i>	You have shown a strong understanding of <i>converting between measurement units</i> on <i>a scale diagram</i>	You have shown a comprehensive understanding of <i>converting between measurement units</i> in <i>a scale diagram</i>
Area and perimeter of compound shapes	You have shown some understanding of visualising, estimating and finding the perimeter and area of compound shapes on <i>sports fields & courts</i>	You have shown an understanding of visualising, estimating and finding the perimeter and area of compound shapes <i>sports fields & courts</i>	You have shown a strong understanding of visualising, estimating and finding the perimeter and area of compound shapes on <i>sports fields & courts</i>	You have shown a comprehensive understanding of visualising, estimating and finding the perimeter and area of compound shapes in <i>sports fields & courts</i>
Time Management	You have yet to complete and submit your assessment	You have submitted your assessment late	You have submitted your assessment by the due date	You have submitted your assessment by the due date
Overall Grade	Working TOWARDS	Working AT	Working ABOVE	Working BEYOND