SENTINUS YOUNG INNOVATORS 2026

Creating a Professional Research Poster

Student Guidelines

Your poster is your project's first impression.

It should communicate your research clearly, professionally, and visually — even to someone who has never seen your project before.

Judges should be able to:

- Understand your question within 30 seconds
- Follow your method
- See strong evidence
- Understand your conclusions
- Recognise your innovation

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1. Title

Your title must be:

- Large and readable from 2 metres away
- Clear, specific, and concise
- Directly linked to your research question

Include:

- Your name(s)
- Your school
- Competition category

Optional: Competition logo (if permitted)

Good example:
"To What Extent Does Loft Insulation Reduce Heat Loss in 1970s Northern Ireland Homes?"

Avoid vague titles like:
"Energy Project" or "Flooding Study"

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2. Introduction / Background

(Keep this brief – maximum 20% of your poster)

Briefly explain:

- Why your topic matters (Northern Ireland or global relevance)
- The key scientific or engineering principles involved
- The specific gap or problem you investigated

This section should set context — not tell the whole story.

Avoid long paragraphs. Use short, clear sentences.

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3. Research Question

(Make this prominent)

Your research question must be clearly visible.

Examples:

- To what extent can sustainable drainage systems reduce surface flooding?
- How effective is a low-cost filtration system at improving water quality?

Your results and conclusion must directly answer this question.

If your conclusion does not clearly respond to your question, your project will lose marks.

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4. Methodology

Explain clearly:

- What you did
- What equipment or data you used
- How you ensured reliability
- Ethical considerations (if relevant)

Use visual tools where possible:

✓ Bullet points
✓ Flow diagrams
✓ Photos of experiments
✓ Process charts

Avoid writing long blocks of text.

Judges should quickly understand how your investigation was carried out.

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5. Results

(This is the most important section.)

This should take up the largest space on your poster.

Include:

- Graphs
- Tables
- Diagrams
- Before/after comparisons
- Key statistics

Good Practice:

- Label all axes clearly
- Include units (°C, %, kWh, mm, etc.)
- Use consistent scales
- Keep formatting clean
- Avoid clutter

Graphs are usually stronger than tables.

Visual clarity is more important than decoration.

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6. Analysis & Discussion

This is where you demonstrate higher-level thinking.

Explain:

- What your results actually mean
- Whether they support your hypothesis
- Any unexpected findings
- Comparison with published research

Do not simply describe your graphs.

Instead of:
“The temperature increased over time.”

Write:
“The 12% temperature increase suggests improved insulation efficiency compared to baseline measurements.”

Interpret your findings.

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7. Conclusion

Your conclusion must:

- Directly answer your research question
- Be clear and specific
- Be supported by your data

Avoid vague statements such as:
“The project was successful.”

Instead, write:
“Installing loft insulation reduced heat loss by 28%, making it the most cost-effective retrofit intervention tested.”

Precision earns marks.

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8. Evaluation & Limitations

Judges value honesty and critical thinking.

Discuss:

- Sample size limitations
- Measurement error
- Equipment accuracy
- Cost barriers
- Scalability
- Environmental trade-offs

Strong projects acknowledge weaknesses and explain how they would improve the study.

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9. Innovation / Real-World Application

Where appropriate, include:

- A proposed design
- A model
- A prototype
- A policy suggestion
- Future improvements

Show how your findings could be applied in the real world.

Projects with strong practical relevance score highly.

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10. References

Include:

- Books
- Academic journals
- Government publications
- Reliable websites

Use a consistent citation style throughout.

Avoid using Wikipedia as a primary source.

Keep your reference list concise and professional.

Design & Presentation Tips

✓ Use clear headings
✓ Leave white space
✓ Keep text concise
✓ Use high-quality images
✓ Align sections neatly
✓ Use readable fonts

Avoid:

✗ Overcrowding
✗ Bright distracting backgrounds
✗ Excessive text
✗ Inconsistent formatting

Your poster should look professional — similar to those presented at academic conferences.

Final Checklist Before Submission

Have you:

- Clearly stated your research question?
- Presented strong data visually?
- Interpreted your results?
- Directly answered your question?
- Discussed limitations?
- Checked spelling and grammar?

If yes — you are ready to submit.

If you would like, I can next:

- Create a condensed 1-page visual checklist version
- Add a judging rubric that aligns directly with this guide
- Or draft a “What Makes a Winning Poster?” high-impact version for ambitious students