

Models and Inventions Judging Rubric

Rules and presentation:

- Must have a short, written report within the word limit for the year level
- Scientific concept or content obvious
- Maximum size 1m x 1m x 1m; maximum weight 8kg
- Original input, not just made from a kit
- No live animals / plants
- Clear labels on all parts
- Risk assessment form completed
- Acknowledge any help

Written report

Scientific principle / concept	Scientific principle / content clearly stated. Relevant science concepts fully explained. Scientific terms used accurately.	Scientific principle / content stated. Relevant science concepts mainly explained. Scientific terms used satisfactorily.	Scientific principle / content stated but with some flaws. Relevant science concepts satisfactorily explained. Some scientific terms used.	Scientific principle / content stated but with many flaws. Relevant science concepts poorly explained. Few scientific terms used.	Scientific principle / content absent. Few scientific terms used.
Construction explained	Construction technique fully explained. Appropriate detail provided to be able to repeat construction. Problems encountered identified and fully discussed.	Construction technique mainly explained. Most detail provided to be able to repeat construction. Problems encountered identified and satisfactorily discussed.	Construction technique explained, however, needs more details to be able to repeat construction. Some problems encountered mentioned but limited discussion.	Construction technique poorly explained. Little detail provided to enable a repeat construction. Problems identified but not discussed.	Limited construction technique. No detail provided to enable a repeat construction. Problems neither identified nor discussed.
Operation instructions	Operation instructions fully explained. Clear instructions.	Operation instructions given. Most instructions clear.	Operation instructions given however, some instructions are incomplete or unclear.	Some operation instructions given however, many instructions incomplete or unclear.	Operation instructions poorly explained or missing
Risk Assessment and Assistance	Risks assessed and control measures clearly described. Full details of all assistance clearly given.	Most risks identified and their control measures clearly described. Good details of assistance given.	Some risks identified but little information on controlling them. Details of assistance outlined.	Risks identified but controls not listed. Assistance mentioned but details not given.	Risks not identified. Assistance not acknowledged but evident in project.

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Construction

Creativity / resourceful / originality / new application	Model / Invention shows a high level of creativity and / or innovative approach to deliver science concepts.	Model / Invention shows good creativity and / or unusual approach to deliver science concepts.	Model / Invention shows satisfactory level of creativity and /or approach in delivering science concepts.	Model / Invention shows little creativity and /or approach in delivering science concepts.	Model / Invention is a copy of a 'text book' or other model.
Design and construction	Design and construction shows excellent skill; is neat and very sturdy. Expensive materials are not necessary to fulfil this criterion.	Design and construction shows good skill; is neat and sturdy.	Design and construction shows moderate skill; is neat and moderately sturdy.	Design and construction shows some skill; is fairly neat. Works initially but is not sturdy enough for frequent use.	Design and construction shows little skill; is insufficiently sturdy.
Working	Model / invention is interactive, it works reliably.	Model / invention has some interactive part, it works fairly reliably.	Model / invention has some interactive part, not reliable in working.	Model / invention has some interactive part, but does not work	Model / invention is static.