# Young Scientist Awards

## JUDGING RUBRIC: STANSW Scientific Investigation, Years 3-4

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| 5     | **The student has provided clear and convincing evidence that he/she:**  
|       | • completed a **well-planned** scientific investigation that incorporated **fair testing**  
|       | • had shown **originality** in the idea and **creativity** in the investigative methods  
|       | • had a **good understanding** of the science concepts related to the investigation  
|       | • gathered **relevant** background information and made **reasoned predictions**  
|       | • **carefully selected** materials and equipment  
|       | • **accurately** gathered experimental data in an **appropriate number of trials**  
|       | • systematically recorded data, including the **correct use of units**  
|       | • analysed data, suggesting **plausible** explanations for the results  
|       | • made **valid** conclusions and suggested **useful applications**  
|       | • documented each stage of the investigative method in a log book  
|       | • **acknowledged** all assistance given  
|       | • used effective **communication skills** taking into account, purpose and audience |
| 4     | **The student has provided substantial evidence that he/she:**  
|       | • completed a **planned** scientific investigation that incorporated **some** fair testing  
|       | • demonstrated **some innovative** or creative aspects  
|       | • had **reasonable** understanding of the related science concepts  
|       | • performed **some relevant** background research and made an **appropriate prediction**  
|       | • selected **suitable** materials and equipment  
|       | • collected **meaningful** and **sufficient** data  
|       | • **correctly** recorded data  
|       | • **discussed** possible reasons for the results  
|       | • analysed data and came to a **valid** conclusion  
|       | • included a log book **detailing** the different stages of the investigation process  
|       | • **acknowledged any** assistance given  
|       | • used effective **language and formatting** to communicate with the intended audience |
| 3     | **The student has provided evidence that he/she:**  
|       | • completed a scientific investigation that contained **elements** of fair testing  
|       | • had shown **glimpses** of innovation or creativity  
|       | • demonstrated an **understanding** of the science concepts used in the investigation  
|       | • collected background research with **some relevance** to the subject of investigation  
|       | • made some form of a **prediction**  
|       | • **used** suitable equipment  
|       | • collected and recorded **first-hand** data  
|       | • proposed **sound** explanations for the data collected  
|       | • provided **supporting** documentation in the accompanying log book  
|       | • **acknowledged some** of the assistance that was given  
|       | • used **appropriate** language to communicate with the intended audience |
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| 2     | The student has provided evidence that he/she:  
- completed a scientific investigation with **limited evidence of fair testing**  
- set the investigation in **some sort** of scientific context  
- collected **fragments** of background research  
- attempted to make a **prediction**  
- gathered data but was unable to **clearly** present it  
- offered **sketchy** explanations for the data collected  
- presented a logbook that was either **fragmented** or **too brief**  
- **informally** mentioned assistance given  
- used language and formatting that **did not connect** with the intended audience |
| 1     | The student has provided evidence that he/she:  
- attempted an investigation with a **lack of understanding** of fair testing  
- had **inadequate** understanding of the related science concepts  
- **failed** to gather first-hand data  
- offered explanations for results that could not be **experimentally** supported  
- **did not maintain** a suitable log book  
- **failed to acknowledge** assistance given |