| Level | Description |
| --- | --- |
| 5 | The student has provided **clear and convincing evidence** that they:   * completed a scientific investigation with a **comprehensive** understanding of **fair testing\*** * had shown a **high level** of **originality** in the idea and/or **creativity** in the investigative methods * have an **in-depth** **understanding** of the relevant **science concepts**\* * collected **wide-ranging, relevant** background information to make **appropriate** **predictions** * selected **suitable** materials and equipment to collect **relevant** and **sufficient** data * recorded data and included appropriate **graphical displays** with or without the use of digital technologies * **analysed data,** identified **detailed trends and relationships, s**uggested **highly plausible** explanations for the results and made **highly valid** conclusions * **extensively** detailed the progress of the investigation in a logbook\* * **acknowledged** the nature ofall assistance given in conducting and communicating the investigation\* * completed a **well-structured and coherent** report, using language that reflects the student’s own understanding, and is appropriate for the intended audience\* |
| 4 | The student has provided **substantial evidence** that they:   * **completed** a scientific investigation with a **thorough** understanding of fair testing * had shown **originality and/or creativity** in the investigative methods * have a **clear** understanding of the relevant **scientific concepts**\* * Collected **relevant** background information to make an appropriate prediction * Selected **suitable** materials and equipment to collect **relevant and sufficient** data * recorded data and included appropriate **graphical displays** with or without the use of digital technologies * **analysed data,** identified **trends and relationships,** suggested **plausible** explanations for the results and made **valid** conclusions * **clearly** detailed the progress of the investigation in a logbook\* * **acknowledged** all assistance given in conducting and communicating the investigation\* * completed a **well-structured and coherent** report**,** using language that reflects the students own understanding, and is appropriate for the intended audience\* |
| 3 | The student has provided **evidence** that they:   * **completed a** science investigation with a **reasonable** understanding of fair testing * had shown **little originality** and/or **creativity** in the investigative methods * had **some understanding** of the relevant science concepts\* * collected some relevant background information to make a prediction * selected **suitable** materials and equipment to collect **mostly relevant and sufficient** data * recorded data in **reasonably appropriate** graphical displays with or without the use of digital technologies * **analysed data,** identified **some trends and relationships,** suggested **adequate** explanations for the results, made **mostly valid** conclusions * **reasonably** detailed the progress of the investigation in a logbook\* * **acknowledged** all assistance given in conducting and communicating the investigation\* * completed a **reasonably structured and coherent** report, with language used that reflects the students own understanding and is appropriate for the intended audience\* |
| 2 | The student has provided **evidence** that they:   * completed a science investigation with **minimal understanding** of fair testing * had shown **no** originality and/or creativity in the investigative methods * had **limited** understanding of the relevant science concepts * collected **little or no** relevant background information and made **no, or an inappropriate** prediction * made **little attempt** to consider suitability of materials and equipment and collected **some** data * recorded **some** data in graphical displays with or without the use of digital technologies * conducted a **limited** analysis of data with **no plausible** explanations for the results and made **no** valid conclusions * **did not** detail the progress of the investigation in a logbook. * provided no acknowledgment of assistance given in conducting and communicating the investigation * completed a report with **limited** structure, with language that reflects the students own understanding and is appropriate for the intended audience |
| 1 | The student has demonstrated that they:   * completed a science investigation with **no understanding** of fair testing * had shown **no** originality and/or creativity in the investigative methods * had **no** understanding of the relevant science concepts * collected **little or no relevant** background research and made **no, or an inappropriate**, prediction * made **little attempt** to select suitable materials and equipment and collected **no relevant** data * Recorded **no** data in graphical displays with or without the use of digital technologies * Provided **no analysis** of data or explanation of results with **no valid conclusion** * **did not** detail the progress of the investigation in a logbook * provided no acknowledgment of assistance given in conducting and communicating the investigation * did not write a report with the required structure for a scientific investigation |