**Thermoregulation in spacesuits**

**Rubric**

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| **Criteria** | **Beginning** | **Achieved** | **Exceeded** |
| Heat transfer modelling  | Models direct solar radiation to the suit and radiation of body heat to the suit interior.  | Models direct solar radiation to the suit; radiation of body heat to the suit interior; and conduction and convection of heat to circulating water/gas.  | Models direct solar radiation to the suit; radiation of body heat to the suit interior; and conduction and convection of heat to circulating water/gas. Also models thermal insulation properties of the suit.  |
| Considerations given to the use requirements of the suit | Identifies simple use requirements related to astronaut movement and the space environment. | Identifies use requirements related to dynamic astronaut movement and comfort, the space environment and mission length.  | Identifies use requirements related to dynamic astronaut movement and comfort, the space environment, mission length and unexpected component failure.  |
| Communication | Animation communicates features of the suit, demonstrating selection of some appropriate content, representations, language and text features.  | Animation clearly communicates operation of key features of the suit, including appropriate use of content, representations, language and text features.  | Animation communicates operation of key features of the suit effectively and in an engaging way, including selection of appropriate content, representations, language and text features.  |