

## Additive Assessment Rubric: Session 3 - The Interplanetary Magnetic Field

With an additit□  
before the activities begin and encourage students to achieve to their highest potential.

|   | 1  | +2  | +3   | +4  | +5  |
|---|--|---|--|---|---|
| <p><b>Science Content:</b><br/>Student understands the concept of the interplanetary magnetic field and the design of a NASA satellite whose purpose is to study the IMF.</p> | <p>*Level 2 tasks attempted but not completed or mastered.</p>                               | <p>*Student successfully recalls their prior knowledge of magnets, magnetic fields, and electromagnetism.</p> | <p>* Student knows the concept of interplanetary magnetic fields.<br/>* Student, through successful completion of activity 1, can make strong connections between the Sun and Earth's magnetic fields and knows the effects of solar wind on Earth's magnetic field.</p> | <p>* Student, through successful completion of activity 2, understands the purpose of a magnetometer and the magnetometer boom.<br/>* Students can draw their own model of a magnetometer using their knowledge of magnetic fields.</p> | <p>* Student, through successful completion of activity 3, draws and creates their magnetometer using real world engineering techniques and creates a practical and functioning model NASA satellite that can accurately measure interplanetary magnetic fields.<br/>* Student fully demonstrates comprehension of interplanetary magnetic fields through successful exploration of activities, 90% and above correctness in activity worksheets, and completion of a technical report detailing the student(s) design.</p> |
| <p><b>Collaborative Worker</b></p>  | <p>Participates but does not successfully complete one or more requirements of Level 2 .</p> | <p>Arrives on time with materials. Shows respect for others; cares for equipment and resources.</p>           | <p>Stays focused on assigned task and helps others do the same. Shares work equally.</p>   | <p>Facilitates the participation of all in group. Tutors and/or supports other students.</p>  | <p>Takes all group roles with equal skill. Assists others as they learn to do the same.</p>   |