**Name: Brad McDannald Date: 11/08/10**

**Lesson Title: Calculator Constellation Grade:5th Grade**

**State/System Standards:**

**GLE 0507.6.2 Recognize that charts can be used to locate and identify star patterns.**

**GLE 0506.1.8 Use technologies/manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem solving, and to create accurate and reliable models of mathematical concepts.**

Reading Standards: Standard 5: Assessment - conduct informal and formal assessment of ongoing skills.

Tool: Calculator Constellation

**Goal:** The students will analyze stars, star constellations and star charts to better understand the purpose of studying the Solar System.

**Objectives:**

* **To practice using calculators.**
* **To practice recognizing constellations and using star charts.**

**Set:**

* **Attention grabber/engage all students:** Ask students to complete a quiz on what they know about star in the “Stars” quiz.
* **Relate to previous learning:** What information about stars and star charts can help us identify constellations
* **Relate to real-life:** Astronomers use the night sky and star charts to see anomalies in the universe. Anomalies are things that could be wrong and broken.
* **State the objective:** Today we will practice using calculators and recognize constellations using star charts.

**Instructional Procedures:**

1. Ask students to take a quiz on “Star”. Write EQ on board while waiting for students to finish. (10 minutes)
2. Hand out calculators and Calculator Constellation sheet. (5 minutes)
3. Explain how to do the worksheet and give students time to work on the sheet. (20 minutes)
4. Ask students to compare the circled problems with the correct constellation using the star chart. After students finish identifying the constellation, turn in worksheet and begin on Math practice.
5. Extra time can be spent with AR reading.

**Questions for Higher-Order Thinking:**

How are calculators helpful when solving problems we already have the answer for?

How does having a star chart make identifying constellations easier?

**Closure:**

* **Verbalization of learning by the students:** Ask the students to discuss what helped them find the correct constellation.
* **Demonstration of skill by the students:** Have students turn in their Calculator Constellation sheet.
* **Communicate future learning if necessary:** Tuesday we will start learning about the planets.

**Adaptations to Meet Individual Needs:**

Help explain the star chart and show the correct process of finding a constellation.

**Evaluation/Assessment:**

Calculator Constellations worksheet.

**Materials/Media:**

* Teacher Edition of Science Book.
* Calculator Constellation Worksheet (90).
* Student Journals.
* Math Practice worksheet (90)

**Reflection for Future Modification:**