* Activity Name: **Kites**
* Objectives: As a result of this lesson the student will be able to: 1) understand how the ratio in the lengths changes the ratio in the area (both of one face and the entire surface) and the volume, 2) find the number patterns that exist within the kite and 3) use induction to find algebraic patterns (triangular and pyramidal number patterns).
* GLE’s:
* 1.2.1 – Attributes and Dimension – understand how changes in dimension affect perimeter, area, and volume
* 1.3.1 – Properties and relationships – use geometric properties and relations to contrast, describe and classify 2-D and 3-D geometric figures.
* 1.3.2 – Properties and relationships – construct geometric models and scale drawings.
* Materials:
  + Straw
  + Paper ribbon or yarn (various colors)
  + Tissue paper (various colors).
  + Optional: Balloon sticks (plastic doweling) for support
  + Kite string
  + Scissors
  + Tape
* Teacher Notes
  + Prerequisites for the learner: See Teacher hints.
  + Teacher hints for the activity: This is an activity that could be entered into throughout the year in a variety of courses. The introductory and wrap-up questions depend on this point of entry. And it could be used to introduce or review properties of similar polygons and polyhedra (ratios of lengths, areas, and volume – ratio of the sides is 1 – 2, so the ratio of the areas is 1 – 4, and the ratio of the volume is 1 – 8).
  + Solutions: See the Solution Grid attached.
  + Assessment suggestions:
    - Does it fly?
    - Can you fly it through the goal posts?
* The Activity: See 2. Tetrahedron Kite Model attached.