ESS 102 - Writing Project

Part 1: Two Page Extract: Feb. 11
Part 2: Full Story: Feb. 25

Write an original scientifically-accurate news/science fiction article (about 10 pages typed with 1.5 spacing), that describes some event associated with either the first manned lunar base or the first mission to Mars or other planet within the solar system. Story lines could be a retrospective from 30 years in the future or it could be related to a mission log or an environmental/economic impact of events or whatever.

The article needs to include of definitions (see below) of four processes involved in each of the following: (1) the Sun, (2) the spacecraft mission plan and scientific payload or advance technology needed for space exploration, (3) advanced propulsion scheme and planetary system characteristics and (4) space/planetary hazards, atmospheric conditions and or scientific discovery. A total of 16 definitions is therefore required.

**Grading of Extract:** 80% Scientific Accuracy; 20% Writing clarity.

**Grading of Full Story:** 80% Scientific accuracy and writing clarity; 20% Originality;

**Writing Credit:** Writing credit is to be only given if a score of more than 50% is obtained in the full written version.

**A Definition:**
A description involves the use of a term and in subsequent parts of the sentence, or paragraph the term is defined by four components including (a) at least a couple of key features describing the physical description of the process, (b) one or two a quantitative feature, (c) if only one quantitative feature is described then a physical application of the process must be included.

*Example that would not score:* "The spacecraft engine suffered a plasma disruption and blew into a million pieces"

*A High Scoring Example:* "The spacecraft used an **advanced plasma rocket** capable of producing and *ion/electron stream of a million degrees* that *from the electrodes* at the nozzle. The plasma traveled the *100 m down the platform at a hundredth of a second*, leaving a *trail of ionized gas that glowed green* for a second..."

The term being defined should be highlighted in **bold face** or underlined, and its four key features highlighted in *italics* or some other font.

**Hints:**
(1) As a starting point, you should rough out the terms you will use in your article and this list should be provided so that your article can be graded.
(2) Straight insertion of lecture notes does not count.
(3) Over the course you have used lots of web sites that can be used for inspiration.
ESS 102 Sample Grade Sheet
Name: ______________________

I) The Sun
1) ______________________ ____________ / 32
   ( )        ( )        ( )        ( )
2) ______________________ ____________ / 32
   ( )        ( )        ( )        ( )
3) ______________________ ____________ / 32
   ( )        ( )        ( )        ( )
4) ______________________ ____________ / 32
   ( )        ( )        ( )        ( )

II) Spacecraft Missions and Scientific Payload/Exploration Technology ____________ / 32
   1) ______________________ ____________ / 32
      ( )        ( )        ( )        ( )
   2) ______________________ ____________ / 32
      ( )        ( )        ( )        ( )
   3) ______________________ ____________ / 32
      ( )        ( )        ( )        ( )
   4) ______________________ ____________ / 32
      ( )        ( )        ( )        ( )

III) Advance Propulsion Scheme and Planetary System Characteristics ____________ / 32
   1) ______________________ ____________ / 32
      ( )        ( )        ( )        ( )
   2) ______________________ ____________ / 32
      ( )        ( )        ( )        ( )
   3) ______________________ ____________ / 32
      ( )        ( )        ( )        ( )
   4) ______________________ ____________ / 32
      ( )        ( )        ( )        ( )

IV) Space/Planetary Hazards and Scientific Discovery ____________ / 32
    1) ______________________ ____________ / 32
       ( )        ( )        ( )        ( )
    2) ______________________ ____________ / 32
       ( )        ( )        ( )        ( )
    3) ______________________ ____________ / 32
       ( )        ( )        ( )        ( )
    4) ______________________ ____________ / 32
       ( )        ( )        ( )        ( )

V) Originality and Writing Style ____________ / 32

TOTAL ____________ / 160