THE FOUR FORCES OF EVOLUTION
a take-home, open-book essay assignment
BE CREATIVE!
(or twisted and demented!)

Type your assignment double-spaced and use this outline format:

I A small population is separated from its parent population.
   Describe: the parent population
             the offspring population
             how the separation occurred.
   (Careful: mutations happen at random, not by plan or because they are needed!)
Discuss this Founder’s Effect as you describe your people. What is it?

   Your new population will be subject to the
   FOUR FORCES OF EVOLUTION

   For each of the four forces:
   a. Definition. Briefly explain how the force works in general.
   b. Identify the trait in your offspring population that will be
      affected by the force.
   c. Apply the force and explain what happens and why.

   USE this FORMAT for each of the forces below
   Label each subsection with the appropriate letter (a, b, or c).

The FOUR FORCES:

II Mutation
   STAPLE the
   GRADING

III Natural Selection
   CHECKSHEET
   to the back of your

IV Gene Flow
   FOUR FORCES
   PAPER

V Genetic Drift

Get your creative juices flowing and let your imagination run wild!
Or use my idea of the Mutiny on the Bounty (see website).
An A+ example is on electronic library reserve.
THE FOUR FORCES OF EVOLUTION
Grading Check Sheet

A small population was separated from its parent population.

Including a description of:
- the parent population
- the offspring population
- how the separation occurred.

Discussion of Founder’s Effect as you described your people.

The FOUR FORCES GRADE:

II   ◊◊◊◊◊ Mutation
   ◊◊◊◊◊ a. Definition & briefly explained how the force works (in general).
   ◊◊◊◊◊ b. Identified the trait in your offspring population that was affected by the force.
   ◊◊◊◊◊ c. Applied the force and explained what happened and why.

III  ◊◊◊◊◊ Natural Selection
   ◊◊◊◊◊ a. Definition & briefly explained how the force works (in general).
   ◊◊◊◊◊ b. Identified the trait in your offspring population that was affected by the force.
   ◊◊◊◊◊ c. Applied the force and explained what happened and why.

IV   ◊◊◊◊◊ Gene Flow
   ◊◊◊◊◊ a. Definition & briefly explained how the force works (in general).
   ◊◊◊◊◊ b. Identified the trait in your offspring population that was affected by the force.
   ◊◊◊◊◊ c. Applied the force and explained what happened and why.

V    ◊◊◊◊◊ Genetic Drift
   ◊◊◊◊◊ a. Definition & briefly explained how the force works (in general).
◊◊◊◊ b. Identified the trait in your offspring population that was affected by the force.
◊◊◊◊ c. Applied the force and explained what happened and why.