ANSWERS TO PART A)
1. germinate – both; time – both; scarify – both; graft – present
2. fertilize – both; aerate – both; hydroponic – present
3. monitor water – both; add nutrients – both
4. monitor light – both; boost – present
5. prevent – both; companion plant – both; eradicate – both

ANSWERS TO PART B)
1. phosphorus, P comes from chicken manure or mined from blue rock & makes plants develop good roots, flower well, and increase seed size
2. nitrogen, N comes from organic matter & makes plants grow dark green leaves more rapidly
3. potassium, K comes from coal ash & makes plants have stiffer stems & fibers, builds immunities and increases fruit size

SAFETY NOTES:
• LUNGS - use mask when mixing dry chemicals & soil
• EYES – keep soiled hands away from eyes
• MOUTH – keep soiled hands away from mouth
• SKIN – wash when done planting, watering, etc
• FEET – wear closed shoes
• HAIR – tie back to avoid accidents
Teacher's Notes: Propagation Project

A simple method to germinate plants from seeds is to:

- give students a small cylinder (about 1” across ... an empty toilet paper tube will do if pipe cannot be found)
- have them tear 3 inch wide strips of newspaper & fold one corner down diagonally, then roll the strip around the tube & tuck the newspaper in and around the bottom (this forms a paper cup)
- remove the tube and fill the cup with vermiculite to 2 inches deep, placing the seed 1 inch down
- place the cup and seed 2 inches deep in the earth where you want it to take root and begin watering and fertilizing appropriately

This method allows seeds to get a lot of air and stops other seeds and pests from making their home where student germination projects are conducted. As watering continues, the thin newspaper will dissolve and the plant’s roots will easily extend beyond the vermiculite to the soil around.