Why Are Prokaryotes So Successful?

1. Explain how the following factors relate to the success of prokaryotes as a group:
   - reproducing by binary fission
   - producing endospores (see Nature's Preservative in your reading assignment as part of this answer)

2. Indicate which group of prokaryotes are most likely to live in extreme environments and how this relates to the possibility of extraterrestrial life, (see the 1st and 3rd reading assignments for part of your answer).

3. Indicate where the following prokaryotes would be found:
   - extreme halophiles
   - extreme thermophiles
   - extreme acidophiles
   - methanogens