**Advantages of Sexual Reproduction (1 07)**

Sexual reproduction is definitely more time-intensive and takes more energy for an organism to do compared to asexual reproduction. However, there are advantages to being genetically different than the other members of your population. Using the videos AND p. 46, 47, 72-74 of your text to explain the following, using PROPER vocabulary.

Vocabulary to use: organism, offspring, genetically identical, genetically different, adapted (suited),unicellular (1 cell big), multicellular (more than 1 cell big), variation (genetic variability), resistant

United Nations Biodiversity (about 5 minutes) http://www.unep.org/newscentre/animations/cbd\_web.swf

Biodiversity is “being biologically diverse” and that it is referred to a “biological variation” in some texts and as “variation” in our texts. It is important for many reasons, for examples, many cures for diseases are discovered in jungle plants, so if we destroy the jungle to make agricultural land, we limit the variation and biodiversity that we didn’t know we needed.

Irish Potato Famine (about 7 minutes) http://www.youtube.com/watch?v=rjtkRfsZUck&feature=related

Keep in mind that history has many interpretations and perspectives. This video is made by a student for a project. Ireland did indeed have a potato famine and that is indeed why many Irish people came to the US/Canada (European Wave of Immigration).

The reason the potato famine happened was because a disease affected the potatoes. Because there were very few VARIETIES of potatoes being grown (ie mostly cloned potatoes made by asexual reproduction), all crops were affected by the same disease. Had there been some “genetic variability” or “variation” in the type of potato grown, certain types may have been more resistant and could have been used to grow more resistant potatoes.

Bacteria with Dr Karl Klose (11 minutes) http://www.youtube.com/watch?v=ikZQPB45Zbw

Dr Karl Klose uses some weird analogies. He also talks about the bacteria “having sex”. This is just for the purpose of making his point so that you can know how bacteria multiply so quickly in your body.

#1 What is variation (genetic variablility)?

#2 Suppose there was a disease that struck a population of Paramecium population living in a pond.

 Which would you rather be? EXPLAIN WHY using proper vocabulary and full sentences

 \*a paramecium that was a clone made by asexual reproduction (genetically identical to all other

 paramecium in the pond)OR

 \*a paramecium that was made by sexual reproduction (genetically different than every other

 paramecium)?

#3 Antibiotics are drugs that we take to fight off a bacteria in our bodies. Examples of antibiotics are

 PENICILLIN, or TETRACYCLINE or VANCOMYCIN or STREPTOMYCIN for example. If you were a

 living in a human body and you wanted to avoid getting killed by the antibiotics that the human was

 swallowing, would you rather be? EXPLAIN WHY using proper vocabulary and full sentences

 \*a bacteria that was made by asexual reproduction (genetically identical to all other bacteria in

 the body) OR

 \*a bacteria that was made by sexual reproduction (genetically different than every other

 bacteria in the body)?