Assignment # 3: Scientific Article Review

Task at Hand: The purpose of this activity is to combine your knowledge of the course so far with current research and careers in biology. Individually, you will develop a summary of a scientific article related connected to a single unit in the course.

- Research and choose a scientific article (article must be relevant to one unit in the course)
- Read article, provide the full-text OR hyperlinks (full websites) for article. Ensure the article is accessible if you are providing links.
- Record your links and article information on this shared document: https://docs.google.com/spreadsheets/d/1yQ7lBvMvJVb2TLtzQN1Z94t6SvBeML9voj0jZfuSOO8/edit?usp=sharing
- Prepare a full-page summary report of the article. (Double spaced). Include a description of how the article connects to your learning and the course (see the unit keywords listed below). At the top of the summary page for each article you must list the title of the article, authors of the article and the publisher of the article.
- Think of how the article extends your learning based on the knowledge you have gained from the course? It is encouraged to solely use scientific journal published articles; however, full scientific journal papers may not be accessible for free in some cases. Other sources are acceptable see "suggested journals" below. Ask teacher if the article will be accepted beforehand if you are unsure.
- In total, there should be one full- page summary (if you really need, your summary can be at maximum 2 pages double spaced of your own work & one page to list references (these references may include other resources you used to tie the article to our class content). Formatted references is not required for references. Title page is also not required.

Suggested journals/ sources: Discover, New Scientist, Scientific American, Popular Science, Time, Nature, the New York Times, and you can also use Newspaper Source Plus through the school library website.

How to access databases on BYOD Instructions:

1) Go to https://byod.peelschools.org/library#Intermediate
   OR
   Go to the BYOD page, https://byod.peelschools.org/ and click on "Library"
2) Choose Power Search and select one or more (or all) of the databases.
3) Search a keyword that you are interested in researching about.
4) Remember to check off full text to get full articles.

* If the library requires further access information, use these credentials at home:
o Username: peel_dsb
o Password: athome

Criteria	Marks out of

Credible article/ link provided, longer than 500 words, published on 2009 or after	/2
Specific connections to class content: how it connects to the chosen unit and specific topics/ theories within the unit	/6
Summary in own words: effectively summarizing the scientific relevance in own words	/4
TOTAL MARKS (T/I)	/12

UNIT TOPICS COVERED

UNIT #1 Diversity of Living Things

- effect of various human activities on the diversity of living things
- principles of scientific classification, sampling, and classification techniques
- diversity of living organisms in terms of principles of taxonomy and phylogeny

Keywords: genetic diversity, species diversity, structural diversity, binomial nomenclature, morphology, classification, kingdom, domain, bacteria, fungi, protest, animal, virus, vertebrate, invertebrate, dichotomous key, taxon, genus, species, prokaryote, eukaryote, lytic cycle, lysogenic cycle, amphibia, reptilian, mammalia, etc.

UNIT#2 Genetic Processes

- recent contributions to our knowledge of genetic processes; analyse social and ethical implications of genetic and genomic research
- genetic processes (including meiosis), analyse data to solve basic genetic problems concepts, processes, and technologies related to transmission of hereditary characteristics

Keywords: mitosis, meiosis, haploid, diploid, gamete, zygote, heterozygous, homozygous, allele, trisomy, non-disjunction, codominance, incomplete dominance, multiple alleles, dihybrid, pedigree, DNA, chromosome, crossing over, Mendel, sex-linkage, reproductive technologies

UNIT #3 Evolution

- economic and environmental advantages and disadvantages of artificial selection; evaluate impact of environmental changes on natural selection and endangered species
- evolutionary processes, analyse scientific evidence that supports the theory of evolution
- the theory of evolution, evidence that supports it, and some mechanisms by which it occurs

Keywords: natural selection, fitness, adaptation, artificial selection, mutation, genetic drift, gene flow, non-random mating, mimicry, survival of fittest, speciation, phylogeny, Darwin, Malthus, Lyell, Lamarck, cladogram, sexual selection,