Applications of Modeling.  Goal: The purpose of this is to understand different ways that models can be used to learn and make decisions about issues of human concern. Humans alter the environment and can use ecological knowledge to address problems. Policy is often informed by scientific models. Instructions: 1. Explore/browse some applications of modeling that are related to the field of ecology - select at least two of the three (3) categories, but you don’t have to look at every single link in your chosen categories: 1. 1. 1. Climate and climate change • o 1. ♣ o https://scied.ucar.edu/learning-zone/how-climate-works/climate-modeling Links to an external site. o Interactive model- https://scied.ucar.edu/interactive/simple-climate-model Links to an external site. o https://www.climate.gov/maps-data/primer/climate-models Links to an external site. o https://www.gfdl.noaa.gov/climate-modeling/ Links to an external site. o https://blogs.ei.columbia.edu/2018/05/18/climate-models-accuracy/ Links to an external site. o https://climate.nasa.gov/news/2943/study-confirms-climate-models-are-getting-future-warming-projections-right/ Links to an external site. 2. Population growth and conservation ♣ o https://www.nature.com/scitable/knowledge/library/how-populations-grow-the-exponential-and-logistic-13240157/ Links to an external site. o Interactive models- https://media.hhmi.org/biointeractive/click/populationdynamics/#/ Links to an external site. o Humans- https://doi.org/10.1002/pan3.8 Links to an external site. o Sea Turtles (classic example) - https://www.nap.edu/read/12889/chapter/5 Links to an external site. ♣ Influential scientific paper- https://doi.org/10.2307/1939225 Links to an external site. ♣ Turtle Excluder Devices (TEDs)- https://www.fisheries.noaa.gov/southeast/bycatch/history-turtle-excluder-devices Links to an external site. 3. Infectious disease spread • o ♣ ♣ o https://www.lse.ac.uk/philosophy/blog/2021/02/16/what-are-scientific-models-and-how-much-confidence-can-we-place-in-them/ Links to an external site. o https://publichealth.yale.edu/cidma/publications/ Links to an external site. o https://news.stanford.edu/2020/09/08/modeling-behaviors-spread-disease/ Links to an external site. o https://www.public-health.uiowa.edu/news-items/modeling-the-spread-of-infectious-disease/ Links to an external site. o https://fivethirtyeight.com/features/why-its-so-freaking-hard-to-make-a-good-covid-19-model/ Links to an external site. 2. Post answers to the following questions in separate paragraphs. 1. A. Which two (2) categories did you explore? B. What is the most interesting thing that you learned? C. What would you like to know more about? D. Consider the variety of links that I gave you as options to explore. -What types of sources are included? What is .edu? .gov? doi? (etc...) -Why do you think these resources were selected? What makes them credible?