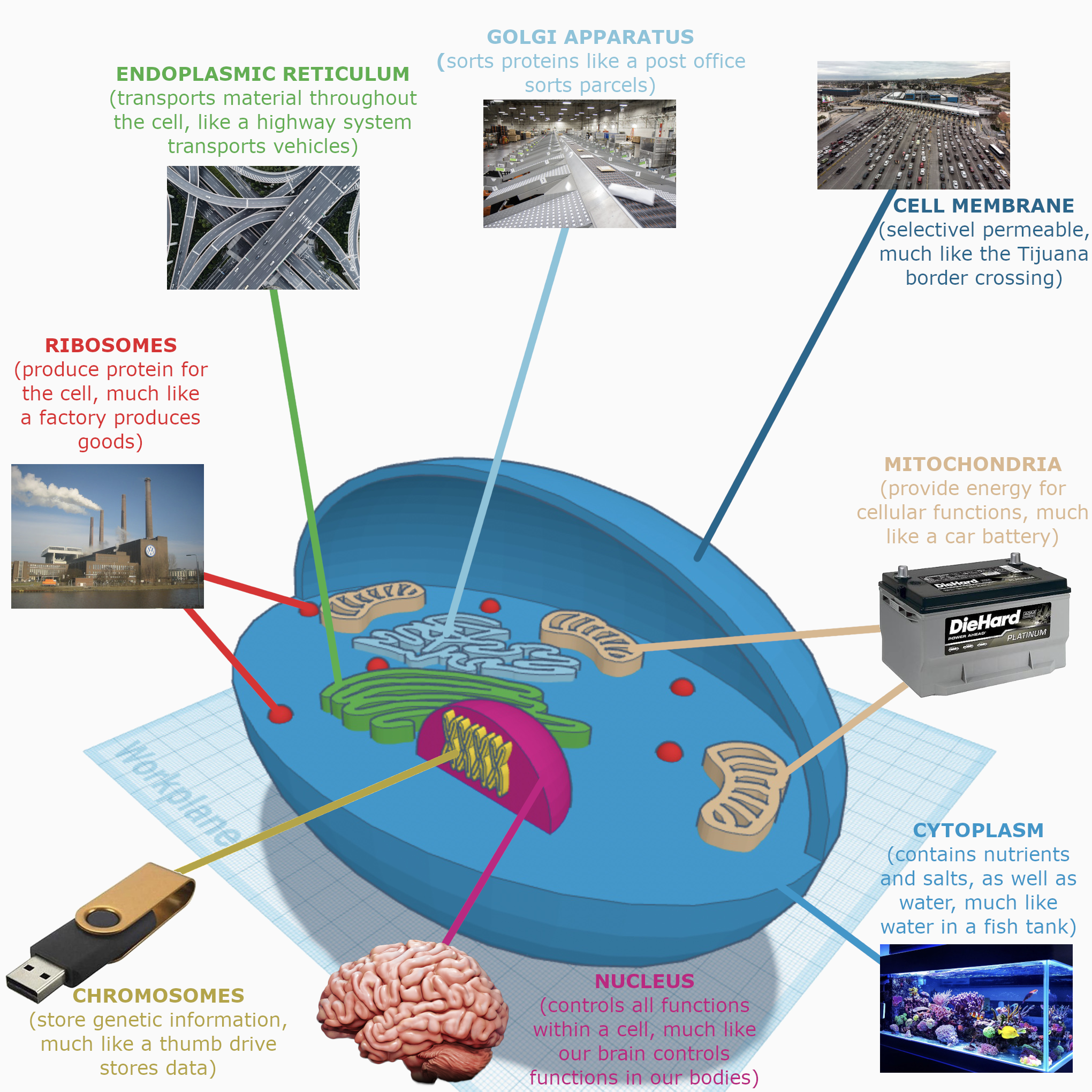
Project 1

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The various structures within the animal cell are analogous to real-world objects in various ways. The cell membrane, for instance, is “selectively permeable, meaning it only allows certain molecules to enter and exit” (McLaughlin, 2020). In this way, it’s similar to the Tijuana border crossing as depicted in the thumbnail (Lind, 2019). The cytoplasm contains cytosol, which “consists primarily of water, but also contains ions, proteins, and small molecules” (McLaughlin, 2020). In this way, it’s similar to the saltwater in a saltwater fish tank as depicted in the thumbnail (crystal\_oceans, 2021). The mitochondria “are the energy-producing organelles, commonly known as “the powerhouse of the cell” (McLaughlin, 2020). Because they provide energy for cellular functions, mitochondria are analogous to a car battery as depicted in the thumbnail (Advance Auto Parts, 2022). Ribosomes “are like mini machines that synthesize all the proteins in the cell” (McLaughlin, 2020). In that they are constantly producing proteins for use by other organelles within the cell, ribosomes can be thought of as miniature factories, as depicted in the thumbnail (Wikipedia 2022).

The endoplasmic reticulum is “involved in the production, processing, and transport of proteins” (McLaughlin, 2020). They transport proteins throughout the cell similar to how highway systems transport vehicles, as seen in the thumbnail (Safety+Health, 2021). The golgi apparatus “folds, sorts, and packages these proteins into vesicles” (McLaughlin 2020). This is similar to how parcels and mail are sorted and packaged in a post office sorting facility, as seen in the thumbnail (Hutkins 2022). The nucleus “controls the cell’s activity” (McLaughlin, 2020). This is akin to how the human brain controls various functions within the body, as seen in the thumbnail (BrainLine, 2022). Finally, chromosomes within the nucleus store genetic information in the form of deoxyribonucleic acid, or DNA, which “contains all the instructions for making proteins” (McLaughlin, 2020). Due to their nature as information storage devices, chromosomes can be thought of as USB thumb drives, as depicted in the thumbnail (Hsieh, et al, 2015).

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