DNA Replication Worksheet

The Big Idea!
The structure of DNA, the molecule of heredity, enables the molecule to copy itself.

Concepts

- DNA is composed of nucleotides and is shaped like a double helix, with strands running antiparallel
- Bases always form complementary base pairs (adenine with thymine and cytosine with guanine)
- Complementary base pairing enables DNA to replicate, or copy itself
- DNA replication involves three steps and each step uses a specific enzyme
- There is a leading strand and a lagging strand for each replication fork
- The lagging strand is made from Okazaki fragments

PART A
Complete the following strand of DNA by placing the letter of the correct nitrogenous base on the line provided

5’	C	C	A	G	T	A	G	T	T	3’
____	____	____	____	____	____	____	____	____	____	____

If the DNA molecule above were the parent strand of DNA, when the strands are split for replication, which strand would be the template for the leading strand? Why?

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PART B
1. Why does DNA need to replicate?

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