

## DNA Replication Video (no sound)

<https://www.youtube.com/watch?v=TNKWgcFPHqw>

	What's happening?	Parts that are familiar	Parts that are unfamiliar
Minute 1	<p>Helicase breaks <math>H^+</math> bonds between bases and separates the double helix.</p>	<p>DNA double helix Shape - base pairs G/C                   A/T - strands are complementary Helicase - breaks double helix creating replication forks</p>	<p>Direction <math>5' \rightarrow 3'</math> <math>3' \rightarrow 5'</math></p>
Minute 2	<p>DNA polymerase creates a new complementary strand of DNA by matching/base pairing nucleotides to the old strand.</p>	<p>DNA polymerase adds in complementary nucleotides • occurs faster in leading + slower in lagging.</p>	<p><u>Primase</u> starting the process by leaving an RNA <u>primer</u> where DNA polymerase attaches. <math>5' \rightarrow 3'</math> Okazaki fragments <math>3' \rightarrow 5'</math></p>
End	<p>Ligase glues new + old strands of DNA together reforming <math>H^+</math> bonds</p>	<p>Ligase glues old + new strands together by reforming <math>H^+</math> bonds.  semiconservative 1 old + 1 new strand.</p>	<p>Primase + looped copying of <math>3' \rightarrow 5'</math> strand.  Exonuclease removes RNA primers</p>

2 (or more) questions this video makes me ask

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