

Name answer key Date _____

DNA REPLICATION

Answer the questions below.

Write out the complete name for DNA?

deoxyribonucleic acid

What is DNA replication?

the biological process of producing two identical replicas of DNA from one original DNA molecule

What is DNA transcription?

Transcription is the process by which an RNA sequence is produced from a DNA template (gene)

What is DNA translation?

Translation is the process of protein synthesis, whereby genetic information encoded by mRNA is translated into an amino acid sequence (i.e. polypeptide) at the ribosome

What is the role of the Helicase in DNA replication?

Helicase unwinds and separates double-stranded DNA molecules

What is the role of the DNA Polymerase in DNA replication?

DNA polymerase synthesises a new strand (complementary to the template strand)

Distinguish between sense and anti-sense strands!

The antisense strand is the DNA strand that IS transcribed

State when and where DNA replication happens in a typical eukaryotic cell.

DNA replication occurs within the nucleus, during the S phase of interphase