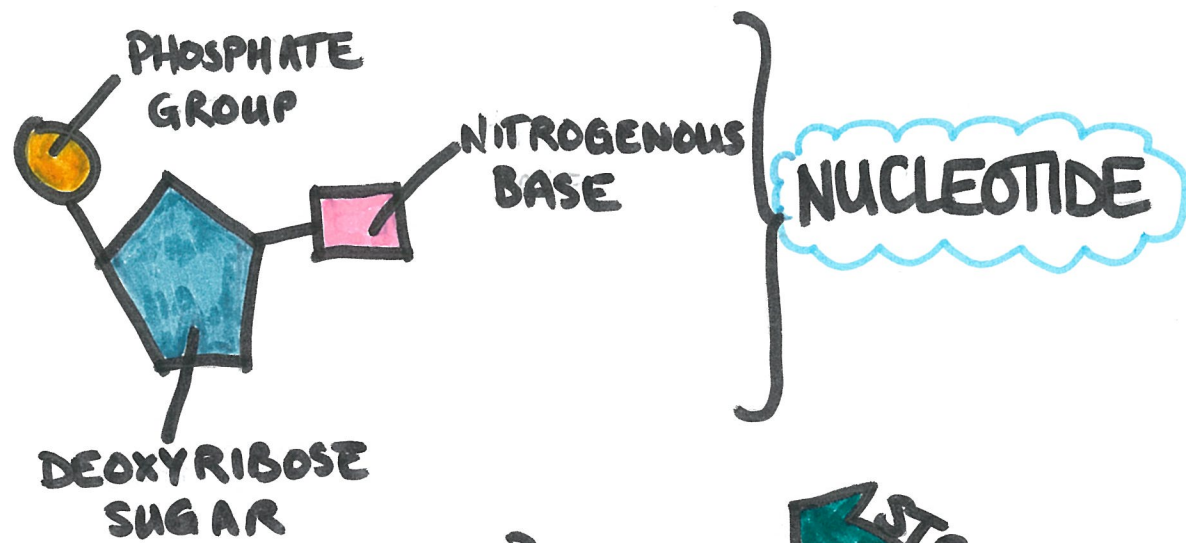
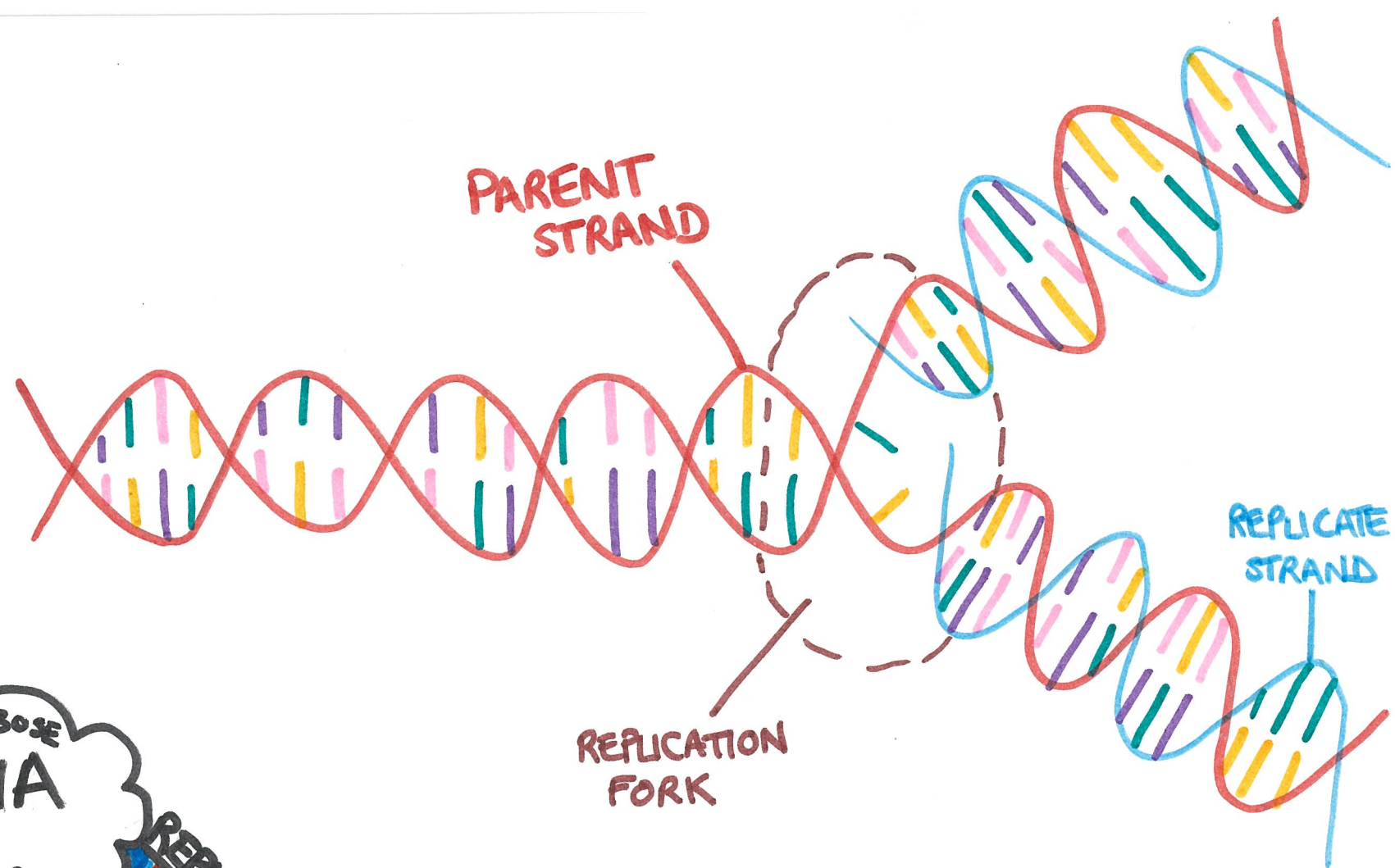




4 BASES — ADENINE
 — THYMINE
 — CYTOSINE
 — GUANINE

HELD TOGETHER BY HYDROGEN BONDS

COMPLEMENTARY



STRUCTURE

DEOXYRIBOSE
DNA
SUGAR

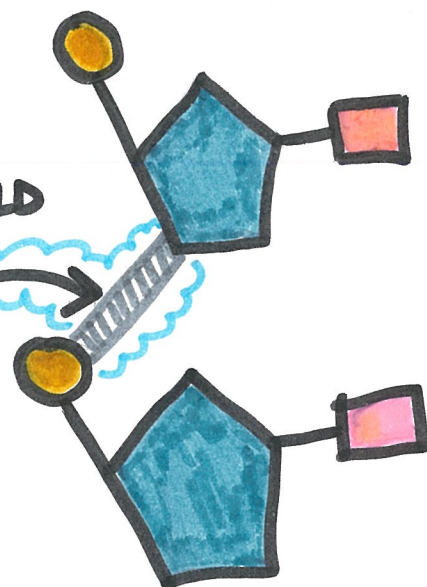
REPLICATION

STRUCTURE IS TWISTED

DNA DOUBLE HELIX
(2 STRANDS)



BACKBONE =
SUGAR &
PHOSPHATE HELD
TOGETHER BY
PHOSPHODIESTER
BOND



ENZYME = DNA HELICASE

• DNA UNWINDS & UNZIPS, BREAKING H-BONDS
 • CONTINUOUS UNWINDING AS REPLICATION FORK MOVES ALONG DNA

• FREE NUCLEOTIDES PAIR WITH EXPOSED BASES ON PARENT STRANDS OF DNA (ENZYME = DNA POLYMERASE)
 • SHORT SECTIONS OF DNA NUCLEOTIDES JOIN UP WITH THE HELP OF ENZYME DNA LIGASE

• SEMI-CONSERVATIVE REPLICATION — ONE STRAND FROM ORIGINAL PARENT DNA & ONE NEW COPY