DNA Explored

Part 1: DNA Structure
DNA is a molecule found in all living cells. DNA's structure is complex and contains information that is essential for life.

- DNA Replication Is Fundamental for All Life
- The Basic Structure of DNA
- Chemical Bonds in DNA
- Base Pair Bond Strength
- DNA Sequences
- Proteins Interact with DNA
- DNA vs. RNA
- Check Your Understanding
- Summary of Part 1

Part 2: DNA Replication
Within cells, many proteins work together to make a complete and accurate copy of the DNA. Errors in DNA replication are rare but do occur.

- Replicating DNA: A Very Tall Order
- How Do Cells Replicate DNA?
- Step 1: Initiation
- Step 2: Making Primers
- Step 3: Extension
- Help the Cell Replicate DNA
- Step 4: Connecting DNA Fragments
- Errors Occur in DNA Replication
- Interrupting DNA Replication to Fight Cancer
- Check Your Understanding
- Summary of Part 2

Part 3: Polymerase Chain Reaction (PCR)
PCR is an important laboratory technique that allows scientists to make many copies of a selected region of DNA.

- Replicating DNA Outside of a Cell
- An Overview of PCR
- Designing Primers for PCR
- Temperature is Important in PCR
- What Can We Learn from Amplified DNA?
- Check Your Understanding
- Summary of Part 3

Part 4: Quiz Questions
Quiz Questions

- Quiz Questions
- Feedback Survey