

UPGRADE to the Bundle

Crash Course BIOLOGY (2012 SERIES) 40 Episode Series Bundle

- ✓ Classroom Ready - Just Print and Go!
- ✓ Active Engagement - Keep Students' Attention
- ✓ Direct Video Link Included

WATCH VIDEO

ALL 40 Episodes with Answer
Keys and Direct Video Link

CLICK HERE



Crash Course Biology (2012) #10: DNA Structure and Replication

Name: _____ Date: _____

You can access the video here → <https://youtu.be/8K2zwjRV0M?si=35hjRAAs59Dxjhg17>

1. Deoxyribonucleic acid—commonly called _____—stores our genetic instructions.
2. DNA and _____ are both nucleic acids, but only one is typically single-stranded.
3. Each DNA nucleotide contains a five-carbon sugar (_____), a phosphate group, and a nitrogenous base.
4. The four DNA bases are adenine, thymine, cytosine, and _____.
5. The twisted, antiparallel 5'→3' / 3'→5' structure of DNA is the _____.
6. In complementary pairing, A pairs with T while G pairs with _____.
7. Compared to A-T (two bonds), the G-C base pair has _____ hydrogen bonds.
8. The sugar-phosphate _____ run along the outside as twin supports of the helix.
9. Every human somatic cell contains 46 _____ tightly packed in the nucleus.
10. Unlike DNA's deoxyribose, RNA uses the sugar _____.
11. In RNA, thymine is absent; instead _____ pairs with adenine.
12. During replication, _____ unwinds the double helix at the replication fork.
13. On the leading strand, _____ extends the new DNA by adding matching nucleotides after the primer.
14. The lagging strand is synthesized in short segments known as _____ fragments.
15. After primers are replaced, DNA _____ seals the fragments to form a continuous strand.

Crash Course Biology (2012) #10: DNA Structure and Replication - KEY

1. Deoxyribonucleic acid—commonly called **DNA**—stores our genetic instructions.
2. DNA and **RNA** are both nucleic acids, but only one is typically single-stranded.
3. Each DNA nucleotide contains a five-carbon sugar (**deoxyribose**), a phosphate group, and a nitrogenous base.
4. The four DNA bases are adenine, thymine, cytosine, and **guanine**.
5. The twisted, antiparallel 5'→3' / 3'→5' structure of DNA is the **double helix**.
6. In complementary pairing, A pairs with T while G pairs with **cytosine**.
7. Compared to A-T (two bonds), the G-C base pair has **three** hydrogen bonds.
8. The sugar-phosphate **backbones** run along the outside as twin supports of the helix.
9. Every human somatic cell contains **46 chromosomes** tightly packed in the nucleus.
10. Unlike DNA's deoxyribose, RNA uses the sugar **ribose**.
11. In RNA, thymine is absent; instead **uracil** pairs with adenine.
12. During replication, **helicase** unwinds the double helix at the replication fork.
13. On the leading strand, **DNA polymerase** extends the new DNA by adding matching nucleotides after the primer.
14. The lagging strand is synthesized in short segments known as **Okazaki** fragments.
15. After primers are replaced, **DNA ligase** seals the fragments to form a continuous strand.

15 Questions

Answer Key Included

Save 85% per worksheet!

Buyer Comments From My Video

Worksheet Bundles

★★★★★ Extremely satisfied "I like the versatility of this. For my more independent students, they can do this for extra credit or sub work. For my classes who need more help, we watch as a class and pause and discuss along the way. Great to help with vocabulary due to videos, and writing."

★★★★★ Extremely satisfied "This is a great resource to challenge my students as well as provide an outline for them as they go. It acts as guided notes to check their understanding and help guide them through the videos."

Buyer Comments From My Video Worksheet Bundles

★★★★★ **Extremely satisfied** "I like the versatility of this. For my more independent students, they can do this for extra credit or sub work. For my classes who need more help, we watch as a class and pause and discuss along the way. Great to help with vocabulary due to videos, and writing."

★★★★★ **Extremely satisfied** "This is a great resource to challenge my students as well as provide an outline for them as they go. It acts as guided notes to check their understanding and help guide them through the videos."

★★★★★ **Extremely satisfied** "This is perfect for my students who have missed class and need a quick review. I also love these for sub days."

★★★★★ **Extremely satisfied** "This bundle will be a great investment for extending learning and challenging my 7th grade classes!"

★★★★★ **Extremely satisfied** "User friendly. Students were engaged and liked the activity."

★★★★★ **Extremely satisfied** "This works great! They can listen on their own with a link in google or as a whole class for kids that need more help with focusing."

★★★★★ **Extremely satisfied** "This is a great lifesaver for easy sub plans and quick reviews."

★★★★★ **Extremely satisfied** "Thank you these are great at building background knowledge and helping my special needs students keep up with their regular."