Blog resource: <http://tinyurl.com/69yqaxk> Click4Biology: <http://tinyurl.com/68c8g3j>

Cite all sources using the CSE method (or ISO 690 Numerical in Word. Highlight all objective 1 command terms in yellow and complete these **before class**. Highlight all objective 2 and 3 command terms in green – these will be part of the discussions in class. After class, *go back and review them*.

Complete the **self-assessment rubric** before submitting to Moodle. Avoid printing this if possible.

1. Identify the phase of the cell cycle during which DNA replication occurs.
*
1. State the function of DNA replication.
2. Identify the end product of DNA replication in a human somatic cell.
3. 23 chromosomes
4. 46 chromosomes
5. 23 pairs of chromosomes
6. 23 pairs of sister chromatids
7. Describe how mitosis ensures that each new daughter cell is identical (mitosis review).
*
*
*
1. Explain the process of DNA Replication:
2. **DNA Helicase** unwinds and unzips the DNA double helix:



1. **DNA polymerase** creates complementary strands:



1. Explain the importance of *complementary base pairing* in conserving the base-sequence during DNA Replication.
*
*
*
*
1. Describe why DNA replication is considered ‘*semi-conservative’*.



# Works Cited

1. **Allott, Andrew.** *IB Study Guide: Biology for the IB Diploma.* s.l. : Oxford University Press, 2007. 978-0-19-915143-1.

2. **Mindorff, D and Allott, A.** *Biology Course Companion.* Oxford : Oxford University Press, 2007. 978-099151240.

3. **Clegg, CJ.** *Biology for the IB Diploma.* London : Hodder Murray, 2007. 978-0340926529.

4. **Campbell N., Reece J., Taylor M., Simon. E.** *Biology Concepts and Connections.* San Fransisco : Pearson Benjamin Cummings, 2006. 0-8053-7160-5.

5. **Taylor, Stephen.** *Science Video Resources.* [Online] Wordpress, 2010. http://sciencevideos.wordpress.com.

6. **Burrell, John.** *Click4Biology.* [Online] 2010. http://click4biology.info/.

7. **IBO.** *Biology Subject Guide.* [Online] 2007. http://xmltwo.ibo.org/publications/migrated/production-app2.ibo.org/publication/7/part/2/chapter/1.html.

**Self Assessment:**

|  |  |  |
| --- | --- | --- |
|  | **Essential Biology** | **Assessment** |
| **Criterion** | **Complete (2)** | **Partially complete (1)** | **Self** | **MrT** |
| Presentation & Organisation | NA | Complete and neat. All command terms highlighted, tables and diagrams well presented.  |  |  |
| Academic Honesty | NA | Sources cited using the CSE (ISO 690 numerical) method, with Works Cited section complete and correct.  |  |  |
| **Objective 1** understanding | **All** answers for the following command terms correct: | Most answers for the following command terms correct: |  |  |
| **Define Draw Label List Measure State** |
| **Objective 2** understanding | **All** answers for the following command terms correct: | Most answers for the following command terms correct: |  |  |
| **Annotate Apply Calculate Describe Distinguish Estimate Identify Outline** |
| **Objective3**understanding | **All** answers for the following command terms correct: | Most answers for the following command terms correct: |  |  |
| **Analyse Comment Compare Construct Deduce Derive Design Determine Discuss****Evaluate Explain Predict Show Solve Sketch Suggest** |
| Logic, notation, mathematical working | NA | Answers are presented in a logical and concise manner. SI units used most times, with correct unit symbols and definitions of terms. All mathematical working shown. |  |  |
| Further research | NA | *Evidence* is apparent of research and reading beyond the textbook and presentations to find correct answers to challenging questions. **If any questions are unanswered, this criterion scores zero.**  |  |  |
|  | **Total (max 10):** |  |  |