2026-2027 Summer work IB Biology year 2 summary

1. Brainstorm and develop two (2) potential ideas for your Internal Assessment (IA). The detailed instructions were handed out at the end of year one and are attached here. Your ideas do not have to be finalized, but they should be thoughtful and feasible.

2. Workbook pages 443-455 (you can skip age 447 asking you to model mitosis). This unit covers cell and nuclear division, which is primarily a review from 10th grade. You will turn in your workbook on the first day of class. This will be our first unit of the new year and this will count as a review and an introduction to the new material.

3. OPTIONAL: Complete your sketchbook for D2.1 – cell and nuclear division. This will be due in the second week of school, but you can get a head start. The statements can be found on the next page.

D2.1.1—Generation of new cells in living organisms by cell division

D2.1.2—Cytokinesis as splitting of cytoplasm in a parent cell between daughter cells

D2.1.3—Equal and unequal cytokinesis

D2.1.4—Roles of mitosis and meiosis in eukaryotes

D2.1.5—DNA replication as a prerequisite for both mitosis and meiosis

D2.1.6—Condensation and movement of chromosomes as shared features of mitosis and meiosis

D2.1.7—Phases of mitosis

D2.1.8—Identification of phases of mitosis

D2.1.9—Meiosis as a reduction division

D2.1.10—Down syndrome and non-disjunction

D2.1.11—Meiosis as a source of variation

D2.1.12—Cell proliferation for growth, cell replacement and tissue repair

D2.1.13—Phases of the cell cycle

D2.1.14—Cell growth during interphase

D2.1.15—Control of the cell cycle using cyclins

D2.1.16—Consequences of mutations in genes that control the cell cycle

D2.1.17—Differences between tumours in rates of cell division and growth and in the capacity for metastasis and invasion of neighbouring tissue