D2.1 Cell cycle and cancer (HL)

What the Cell · DP Biology · note-taking sheet · HL statements D2.1.12–17

Name _____ **Date** _____

How to use this sheet: go through the slides and videos with it, then close them and write from memory. Use your own words and add page numbers from the book (pp. 662–669) where you want more detail.

Guiding questions. How do cells make many identical copies of themselves? How do eukaryotes make genetically varied cells that can become gametes?

D2.1.12–14 Proliferation and the cell cycle

Three reasons for proliferation, with an example of each:

Draw the cell cycle as a circle. Label G1, S, G2, mitosis, cytokinesis and G0. Note what happens in interphase.

D2.1.15 Cyclins

Sketch how one cyclin rises and falls through the cycle. Mark the threshold and the checkpoint it controls.

D2.1.16–17 Cancer

	Proto-oncogene	Tumour suppressor
Normal role		
Effect of mutation		
Example		

	Benign	Malignant
Growth		
Spread		

Primary and secondary tumours:

Before you finish

Tick the ones you can explain without notes. Circle anything to ask about.

- ☐ Proliferation
- ☐ Meristems
- ☐ G1, S, G2
- ☐ G0
- ☐ Interphase growth
- ☐ Cyclins
- ☐ Checkpoints
- ☐ Oncogenes
- ☐ Tumour suppressors
- ☐ Benign
- ☐ Malignant
- ☐ Metastasis