## 1-2 C2:Cell Cycle Mitosis Notes

Monday, January 17, 2022 1:42 PM



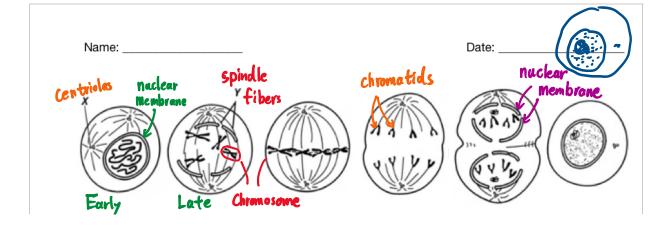
Cell Cycle Mitosis N...

Name:	: Date:						
	Notes: The Cell Cycle and Mitosis						
Stage	es of the Cell Cycle						
	Due to the and of cells, the body must						
	replace them. A good example of this is human skin cells - each day millions are she						
	The life of a cell is divided into three stages known as the cell cycle:						
	Interphase:						
	cell carries out Cytokinesis						
	normal functions.						
	Mitosis .						
	nucleus contents						
	duplicated and						
	divide into						
	two equal parts.						
	· Cytokinesis:						
	separation of two						
	nuclei and cell						
	continued growth and preparation  CONTENTS INTO TWO Figure 5.4 The stages of the cell cycle: interphase, mitosis, and cytokinesis						
	daughter cells.						
	dadginor conc.						
	Phase 1: Interphase						
	Interphase, theongest_ cell cycle stage (90 % of time), is when a cell						
	perform normal function and grows . For example, an						
	intestinal lining cell absorbing nutrients.						
	In late interphase, DNA <u>copies</u> itself in the process of <u>replication</u> .						
	Replication involves several steps:						
	The DNA molecule <u>Unwinds</u> with the help of an enzyme.						
	New bases pair with the bases on the original DNA.						
	Two new identical DNA molecules are produced.						

grow and make proteins in preparation for mitosis and cytokinesis. ~ 80 min Phase 2: Mitosis e 2: Mitosis

Mitosis is the Shortest stage of the cell cycle where the nuclear contents divide, and two daughter nuclei are formed. It occurs in 4 stages: Prophase, Metaphase, Anaphase, Telophase As the nucleus prepares to divide, replicated DNA (\_\_\_\_ in interphase joins to form \_\_\_\_\_\_\_ Sister \_\_\_\_ Chromatids, joined by a Centro mere and nuclear membrane Early Prophase - Nucleo us disappears and spindle fibres form Late Prophase (Prometaphase) - spindle fibres attach to centromeres of chromosomes Metaphase - chromosomes align on \_\_\_\_\_\_ of cell Anaphase - spindle fibres \_pull\_ sister chromatids apart to opposite pole of cell Telophase - in this final stage, spindle fibres \_\_\_\_\_\_ disapp car and a nuclear membrane forms around each separated set of chromosomes. Phase 3: Cytokinesis • Cytokinesis is the \_\_\_\_\_ Geparation \_\_\_\_ of the nuclei into two daughter cells -> Cell membrane / Wall will from.

At the end of interphase, the cell continues to





Propried	Propingie	l letaphase maphase			letophase	Cy to panes
	Interphase	<u>Prophase</u>	<u>Metaphase</u>	Anaphase	Telophase	Cytokinesis
Nuclear Membrane	·				~	~
Nucleolus	~	~			~	~
Chromosomes (Chromatin)	~	V			~	~
Chromosomes (Sister Chromatids)		V	~	~		*Cell membrane and cell wall (for plants) formed
Centromere		~	~			
Spindle fibre			~	~		
Centrioles	~	~	~	~		]
Poles		~	~	~		]
Equator			~			]

