Mitosis Fill in the Blank

Interphase

2:43 Cells spend about _____% of their time in interphase.

3:08 The initial step of interphase is called _____, or the "first gap."

3:17 In G1, cells grow and make proteins and tiny versions of organs called _____.

3:39 Mature muscle cells that never divide again remain in _____ phase.

3:44 The next step of interphase is _____ phase, or the "synthesis" phase.

3:49 During S phase, the cell makes copies of its _____. That will eventually be folded into tight bundles called _____.

4:13 By the end of S phase, the amount of _____ in the cell has doubled.

4:43 The last step of interphase is _____, or the "second gap."

4:57 Two protein complexes called _____ help organize what will be divided.

Mitosis & Cytokinesis

5:10 The mitotic (M) phase is shorter than interphase but includes _____ and _____.

5:27 The goal of mitosis is for the _____ to split in two.

5:30 This ensures each cell gets a complete copy of the _____.

5:35 _____ is when the cell's insides split apart.

5:43 In animal cells, the cell membrane cinches like drawstrings. This is called _____

5:55 In plant cells, a rigid _____ divides one cell's contents from the other.

Steps of Mitosis

6:39 In _____, chromatids condense into X-shaped chromosomes.

6:43 Well, those loose threads are joined at little points called _____,and now condense into identical, connected bundles, called _____.So together, they form _____ that look like X

7:00 The long strands forming between centrosomes are called the _____.

7:11 In _____, chromosomes line up across the middle of the cell.

7:23 In _____, chromatids separate and move to opposite poles.

7:35 In _____, two new nuclear membranes form.

7:58 At the end of telophase, chromosomes spread back out in a _____ tangle.

Cytokinesis & Conclusion

8:07 Once cytokinesis is finished, we have _____ identical cells.

8:16 The cell cycle then starts _____ again.

8:20 The five stages are: prophase, metaphase, anaphase, telophase, and cytokinesis – remembered as "_____."