Name:_____

10-3 Reading Guide - Regulating the Cell Cycle

1. Not all cells move through the _____ _____ at the same rate.
2. Experiments show that the controls on cell _____ and cell _____ can be turned on and off.
3. Tim Hunt and Mark Kirschner discovered that cells in mitosis contained a protein that when injected into a nondividing cell, would cause a _____ spindle to form.
4. _____ regulate the timing of the cell cycle in eukaryotic cells.
5. There are _____ types of regulatory proteins.
6. _____ _____ allow the cell cycle to proceed only when certain process have happened inside the cell.
7. External regulators direct cells to _____ up or _____ down the cell cycle.
8. Growth _____ are among the most important external regulators.
9. Molecules found on the surfaces of _____ cells often have an opposite effect, causing cells to slow down or stop their cell cycles.
10. _____ is a disorder in which some of the body's own cells lose the ability to control growth.
11. Cancer cells do not _____ to the signals that regulate the growth of most cells.
12. Masses of cancer cells form _____ that can damage normal tissues.
13. The various forms of cancer have many causes, including _____, _____, and even _____
14. An astonishing number of cancer cells have a _____ in a gene called p53.
15. Cancer is a disease of the _____ _____.
16. Stem cells are unspecialized cells that have the potential to _____.
17. Researchers have found that _____ of stem cells can reverse the effects of brain injuries in mice.
18. Embryonic stem cell research is highly _____.

19. For the word cancer, come up with a sentence or phrase for each letter that relates to the topic. This is not in your book, and you will need to be creative.

C _____

A _____

N _____

C _____

E _____

R _____