

## AP Biology Chapter 12 Vocabulary and Review Questions

### Vocabulary

Anaphase	Cyclin	Metaphase
Anchorage dependence	Cyclin-dependent kinase (Cdk)	Metaphase plate
Benign tumor	Cytokinesis	Metastasis
Binary fission	Density-dependent inhibition	Mitosis
Cell cycle	G0 phase	Mitotic (M) phase
Cell cycle control system	G1 phase	Mitotic spindle
Cell division	G2 phase	MPF
Cell plate	Gamete	Origin of replication
Centromere	Genome	Prometaphase
Centrosome	Growth factor	Prophase
Checkpoint	Interphase	S phase
Chromatin	Kinetochores	Sister chromatids
Chromosome	Malignant tumor	Somatic cell
Cleavage	Meiosis	Telophase
Cleavage furrow		Transformation
		Tumor

### Things to think about

1. Explain how cell division functions in reproduction, growth, and repair.
2. Describe the major events in cell division that allow the genome of one cell to be passed to two daughter cells.
3. Describe how the amount of DNA changes throughout the human cell cycle.
4. List the phases of the cell cycle and describe the sequence of events that occurs during each phase.
5. List the phases of mitosis and describe the characteristic events of each phase.
6. Draw or describe the spindle apparatus including the centrosomes, kinetochores, microtubules, nonkinetochore microtubules, asters, centrioles (in animal cells).
7. Describe what changes occur in the spindle apparatus during each phase of mitosis.
8. Explain the current model of poleward chromosomal movement and elongation of the cell's polar axis.
9. Compare cytokinesis in animal and plant cells.
10. Describe the process of binary fission in bacteria.