

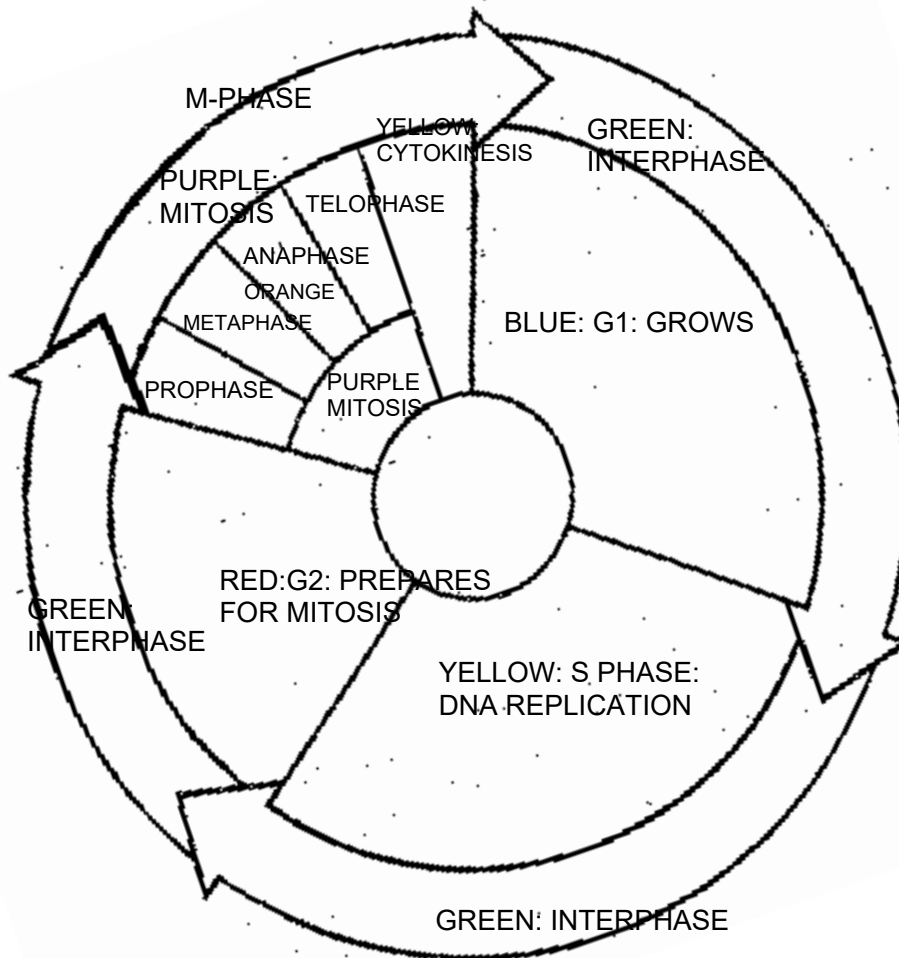
Name: _____ Date: _____ Period: _____

The Cell Cycle Coloring Worksheet

Label the diagram below with the following labels:

Anaphase	Interphase	Mitosis
Cell division (M Phase)	Interphase	Prophase
Cytokinesis	Interphase	S-DNA replication
G1 - cell grows	Metaphase	Telophase
G2 - prepares for mitosis		

Then on the diagram, lightly color the G1 phase **BLUE**, the S phase **YELLOW**, the G2 phase **RED**, and the stages of mitosis **ORANGE**. Color the arrows indicating all of the interphases in **GREEN**. Color the part of the arrow indicating mitosis **PURPLE** and the part of the arrow indicating cytokinesis **YELLOW**.



Use the diagram and your notes to answer the following questions.

1. What is a series of events that cells go through as they grow and divide?

CELL CYCLE

2. What is the longest stage of the cell cycle called? INTERPHASE

3. During what stage does the G₁, S, and G₂ phases happen? INTERPHASE

4. During what phase of the cell cycle does mitosis and cytokinesis occur?

M-PHASE

5. During what phase of the cell cycle does cell division occur? MITOSIS

6. During what phase of the cell cycle is DNA replicated? S-PHASE

7. During what phase of the cell cycle does the cell grow? G₁,G₂

8. During what phase of the cell cycle does the cell prepare for mitosis?

G₂

9. How many stages are there in mitosis? 4

10. Put the following stages of mitosis in order: anaphase, prophase, metaphase, and telophase.

PROPHASE

METAPHASE

ANAPHASE

TELOPHASE

11. Put the following stages of the cell cycle in order: G₂, S, G₁, M.

G₁

S

G₂

M

12. Put the following in order: G₂, G₁, S, mitosis, cytokinesis.

G₁

S

G₂

MITOSIS

CYTOKINESIS

13. Put the following actions in order: DNA replication, cell grows, cell division, cell prepares for mitosis.

CELL GROWS, DNA REPLICATION, CELL PREPARES FOR MITOSIS, CELL DIVISION

14. Explain why cells don't just continue to grow larger as organisms grow larger. Why do cells divide? (Write in complete sentences)

CELLS NEED TO STAY SMALL, SO WHEN THEY GET BIG ENOUGH THEY DIVIDE. SMALL SIZE ALLOWS THE CELL TO GET NUTRIENTS IT NEEDS IN CENTER OF CELL QUICKLY.

CELLS THAT ARE TOO LARGE CAN'T GET NUTRIENTS TO THEIR CENTER QUICK ENOUGH AND DIE.