

Task Card #1: Early Mitosis

Materials Needed:

- Definition and picture matching sheet and cards.
- Looseleaf

Directions: Using the definition sheet as well as the mitosis picture cards, put the picture on top of the definition you believe it matches and then answer the questions below on your own paper. Don't forget to title your work.

Questions:

1. List A to G and write the matching number found on the picture card from the diagram cards and definition sheet that you just matched.
2. What three processes occur during interphase?
3. Interphase is not considered to be a phase of mitosis.
 - a. Explain why interphase is not a phase of mitosis.
 - b. What is the purpose of this time in a cell's life?
 - c. Create a diagram that shows the time allotted to interphase and cell division during the life cycle of a cell. Use page 150 in the textbook to assist you.
4. When during a cell's life cycle does DNA replicate itself? Why does this happen?
5. Explain why it can be said that there are two stages to prophase. Draw a picture to show how this phase can be split into two stages.
6. What is a spindle fiber and what is their purpose?

Task Card #2: Late Mitosis

Materials Needed:

- Task Card #2 Worksheet
- Looseleaf

Directions: Using the task card #2 worksheet label each picture with the name of the phase it represents.

Questions:

1. Between what two phases of cell division does the DNA material within the cell change from chromosomes to chromatin?
2. A) What occurs during cytokinesis?
B) How is cytokinesis different in animal and plant cells?
3. After mitosis, how do the daughter cells compare to the parent cell?
4. A somatic human cell has 46 chromosomes. After the cell has undergone mitosis, how many chromosomes would you expect to find in each cell?

Task Card #3: Mitosis Phases

Materials Needed:

- Baggie containing a white large circle, a smaller yellow circle, 4 pieces of pipe cleaner all the same colour and 4 other pieces of the same coloured pipe cleaner of a different colour than the first and the activity directions
- Looseleaf

Directions: Complete the directions provided for you in the activity baggie. While you complete the activity complete the questions below.

Questions:

1. Create the chart found below and fill in the missing parts as you work your way through the activity directions.

Step in Directions	What phase of cell division does it represent?
#4	
#5	
#6	
#8	

2. In the activity what does the large, white circle represent?
3. In the activity what does the small, yellow circle represent?
4. Explain what the difference(s) between a chromosome and a strand of chromatin are.