MCDD01452_0000[1]Cell Cycle: Interphase, Mitosis & Cytokinesis

You have been given a large piece of paper on which you need to draw and label circles representing each stage of the Cell Cycle. Each circle represents the cell membrane of an **animal** cell.

1. Use the diagrams in the textbook on page 156 to draw and label the following on the correct circles (cells).   
     
   a) the centrioles c) nuclear membrane  
   b) spindle fibres d) centromeres
2. Draw in **three** pairs (***a total of 6***) of chromosomes as they appear in each stage. The figure in your book only shows 2 pairs of chromosomes so you will need to draw an extra pair. Each of your pairs of chromosomes should be a different colour. For example you could end up with 2 large blue chromosomes, 2 medium sized red chromosomes, and 2 small sized green chromosomes (you can use other colours than these).
3. **Answer these Questions on the back of your paper**:  
   1) What important events occur during interphase?  
     
   2) What are the stages of mitosis? What role does mitosis play in the overall process of cell division?  
     
   3) What would happen if mitosis did not occur correctly?  
     
   4) What is the purpose of cytokinesis?  
     
   5) List some similarities (at least 2) and differences (at least 2) in the way the cell cycle occurs in plant cells and animal cells.
4. **Marking**: correct number and colours of chromosomes at each stage 10 marks  
    correct placement of organelles 5 marks  
    labeling and neatness 5 marks

Questions 10 marks

**TOTAL 30 marks**