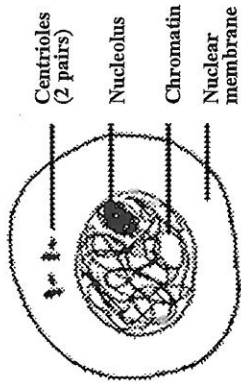


CELL DIVISION STAGES OF MITOSIS

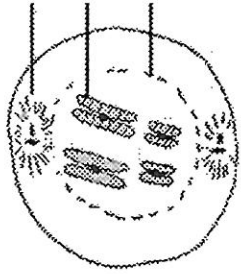
Interphase	Prophase	Metaphase	Anaphase	Telophase	Daughter Cells
<ul style="list-style-type: none"> ▪ Nucleus is visible ▪ Nuclear membrane is present ▪ Nucleolus & chromatin is present ▪ Chromatin (DNA strands) replicate & make exact copies which are attached by means of a centromere. 	<ul style="list-style-type: none"> ▪ Nuclear membrane disappears ▪ Nucleolus is no longer visible ▪ Chromatin strands condense & coil, appearing as linear structures attached by a centromere. In this condensed state, the structures are called chromosomes; each one in the pair is called a chromatid. ▪ Spindle apparatus consisting of microtubules form at opposite poles of cell from centrioles. 	<ul style="list-style-type: none"> ▪ Chromosomes move toward the center of the cell (equatorial plate) ▪ Spindle fibers attach to the centromeres of the chromosomes 	<ul style="list-style-type: none"> ▪ Chromatids are pulled apart at the centromere & move towards the opposite poles. ▪ Spindle fibers pull the chromatids apart ▪ Each chromatid is now a single chromosome ▪ There is a complete set of chromosomes at each pole of the cell 	<ul style="list-style-type: none"> ▪ A nuclear membrane reforms around each set of chromosomes ▪ Nucleolus reforms ▪ Chromosomes uncoil, forming chromatin ▪ Spindle fibers disappear ▪ In animal cells, division of the cytoplasm (Cytokinesis) occurs as follow: <ul style="list-style-type: none"> ▪ In animal cells cytoplasm is pinched in half to form two new cells ▪ In plant cells a cell plate forms, dividing the cytoplasm into two new cells. 	<ul style="list-style-type: none"> ▪ The DNA within each new daughter cell is identical to that of the other and is identical to that of the original parent cell.

Mitosis in Animal Cell



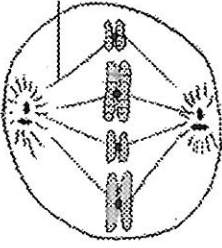
Centrioles
(2 pairs)
Nucleolus
Chromatin
Nuclear
membrane

Interphase



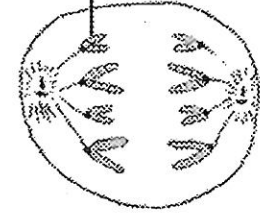
Spindle fiber
Chromosome
Nuclear
membrane

Prophase

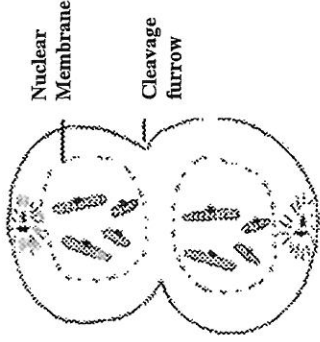


spindle

Metaphase



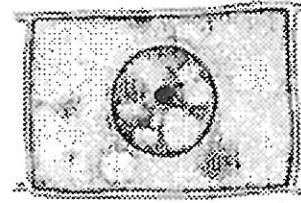
Anaphase



Nuclear
Membrane
Cleavage
furrow

Telophase

Mitosis in Plant cell



Interphase



Prophase



Metaphase



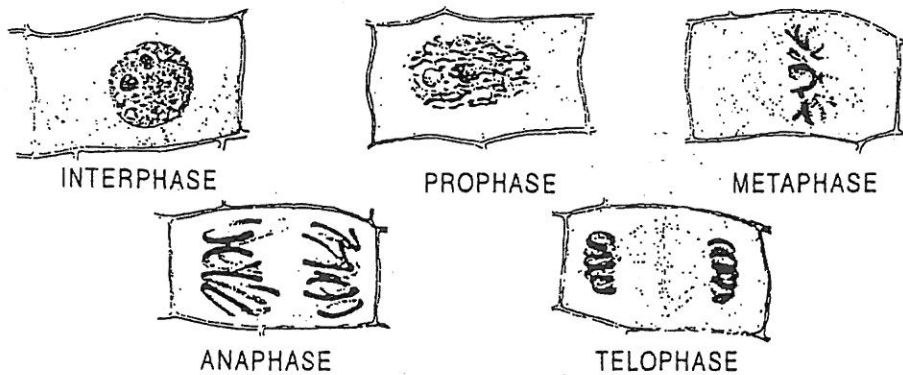
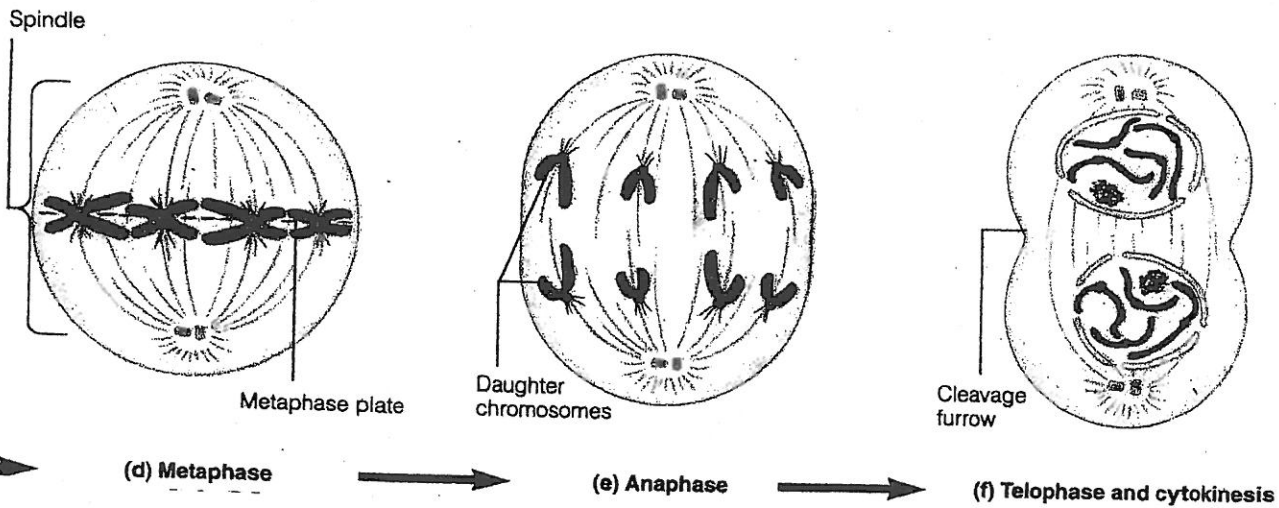
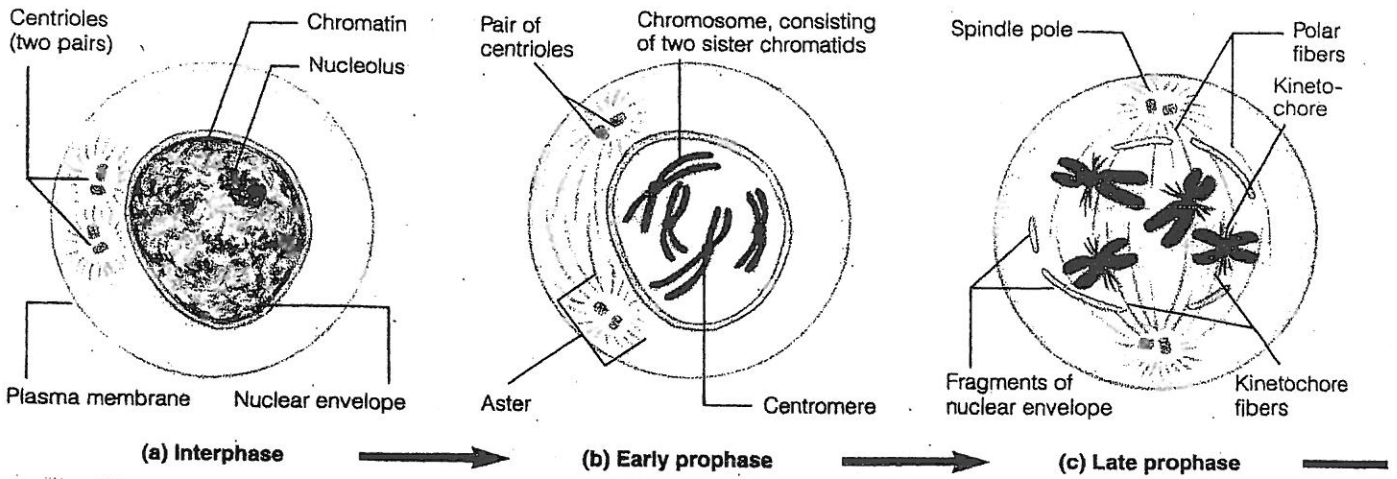
Anaphase



cell plate

Telophase

ANIMAL MITOSIS



PLANT MITOSIS

