

Plant vs Animal Cells

Plant cells have every part an animal cell has, plus three extras: a cell wall, chloroplasts and a large vacuole.

**Plant cell****VS****Animal cell****NUCLEUS**

Yes. Holds the DNA and controls what the cell does.

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CELL MEMBRANE

Yes, just inside the wall. Controls what enters and leaves.

Yes, as the outer layer. Controls what enters and leaves.

CYTOPLASM

Yes. Jelly-like fluid where most reactions happen.

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MITOCHONDRIA

Yes. Release energy from glucose by respiration.

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RIBOSOMES

Yes. Build proteins.

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CELL WALL

Yes. Tough cellulose layer that supports the cell.

No. Only a flexible membrane.

CHLOROPLASTS

Yes, in green parts. Carry out photosynthesis.

No.

VACUOLE

One large permanent vacuole of cell sap keeps the cell firm.

Small temporary vacuoles, if any.

TYPICAL SHAPE

Regular and box-like, held by the wall.

Irregular and rounded.

**Common mix-up**

Plant cells have mitochondria too. Chloroplasts make glucose by photosynthesis; mitochondria release energy from it by respiration, day and night.