

Cellular Contents Quiz ANSWER KEY. Study and know these 10 terms before the quiz!

The instructions will be: "Supply the 10 missing terms to the following definitions below, and then write-in the 10 missing cell components in the model cell at bottom". (The ANSWERS are shown in BOLD, CAPITAL LETTERS below and at bottom).

CELL MEMBRANE: The "international border". Separates cellular contents from the tissues & fluids outside the cell.

NUCLEUS: The "head office". Contains the genetic material, or DNA, which encodes for proteins.

NUCLEAR ENVELOPE: The "head office security". Protects the genetic material (and processes) from the contents of the cell.

CYTOPLASM: The "environment". The gel-like contents of the cell, containing the organelles and fluid portion.

MITOCHONDRION: The "power plant of the cell". Produces most of the cell's energy in the form of ATP.

ROUGH ER: The "protein factory". Produces / assembles proteins which are specified by the DNA.

SMOOTH ER: The "lipid factory". Produces / assembles lipids and steroids, and detoxifies poisons and drugs which enter the body.

RIBOSOME: The "protein assembly machine". The 2-part machine where amino acids are assembled into proteins from the information contained on the mRNA.

GOLGI APPARATUS: The "post office or UPS". Modifies and packages proteins and sends them where needed.

CYTOSKELETON: The "highway system" and "beams" of the cell factory. Provides strength and form to the cell, and provides cable "roads" for transporting components around the cell.

Prototypical animal (human) cell

