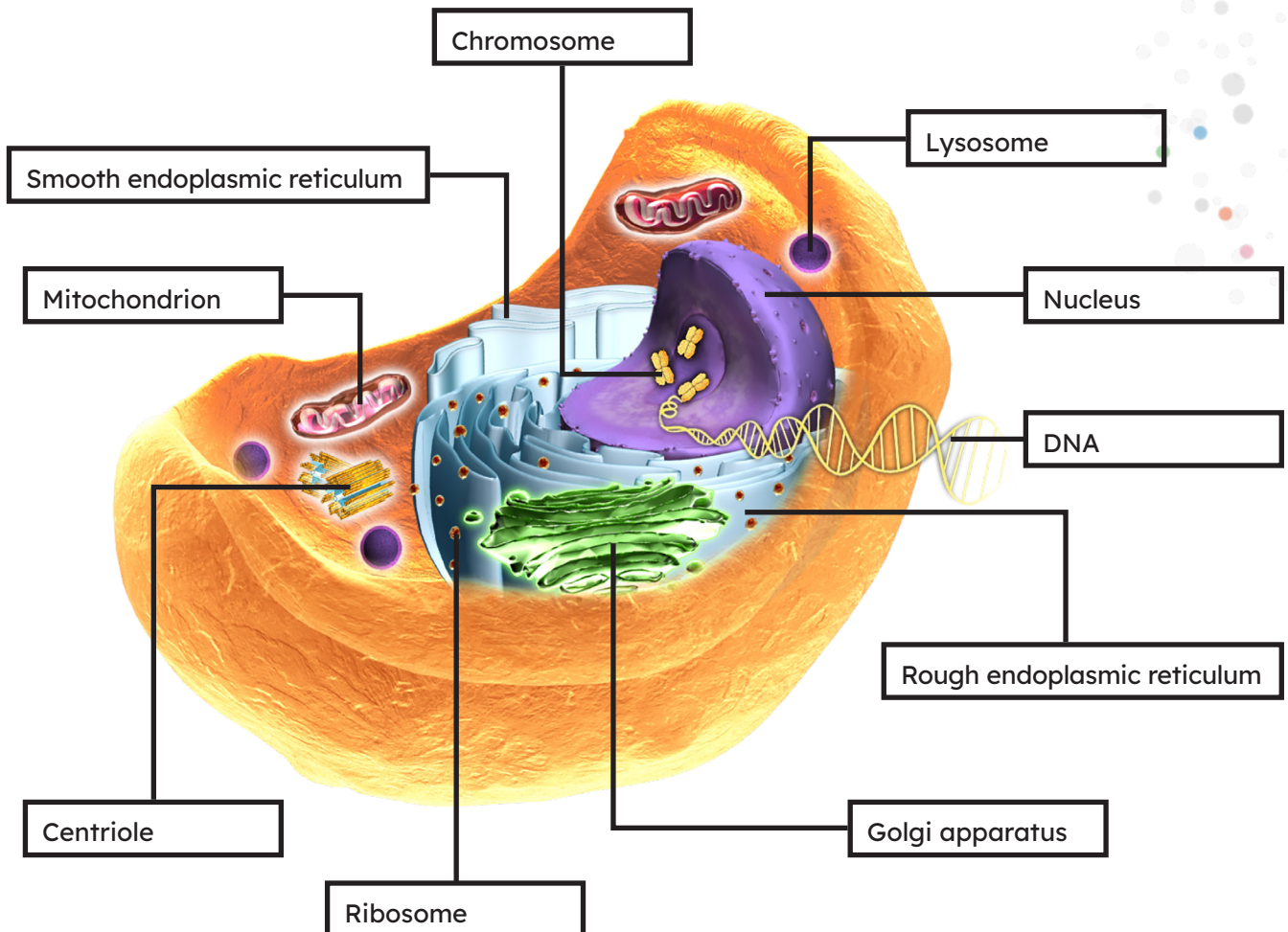




Use the words below to label the components of the cell diagram:

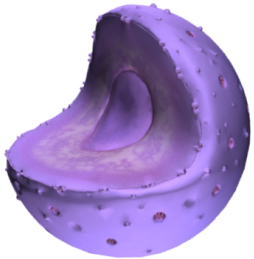
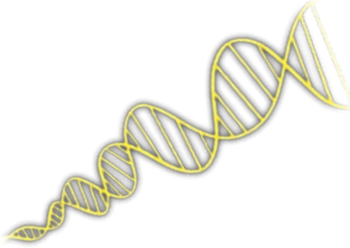
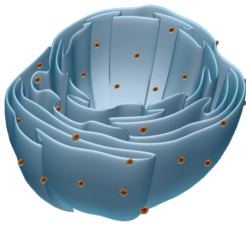
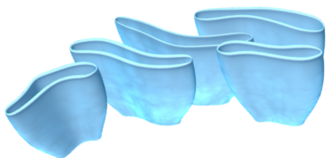
|         |            |                              |          |                 |
|---------|------------|------------------------------|----------|-----------------|
| DNA     | Chromosome | Rough endoplasmic reticulum  | Ribosome | Mitochondrion   |
| Nucleus | Centriole  | Smooth endoplasmic reticulum | Lysosome | Golgi apparatus |

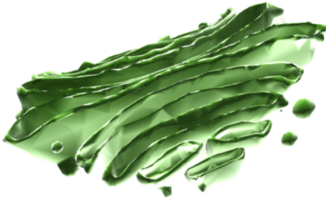
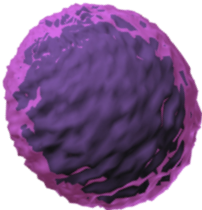
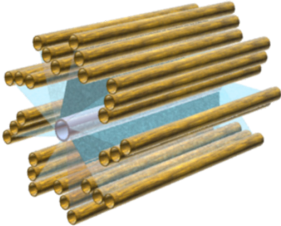
Complete the table below matching the cell component to its correct function:

| Cell component                      | Function in the cell                                                                                                                                                                                                                                                                                                      |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Nucleus</b>                      | The largest of the organelles and is at the centre of the cell. It is the storage site of the cell's DNA.                                                                                                                                                                                                                 |
| <b>Rough endoplasmic reticulum</b>  | An organelle that forms an extensive network of flattened, sack-like membranes known as cisternae. It extends out from the nuclear membrane into the cytoplasm of the cell and is involved in the production, folding and transport of proteins produced by the ribosomes on its surface.                                 |
| <b>Mitochondria</b>                 | Rod- or sausage-shaped organelles found inside cells. They are the power stations of the cell providing chemical energy in the form of adenosine triphosphate (ATP).                                                                                                                                                      |
| <b>Chromosomes</b>                  | Thread-like structures, made of DNA wrapped around a scaffold of proteins. Each human cell contains 46 of these structures. They contain specific regions of DNA, known as genes, sections of DNA that carry information required to make a molecule, usually a protein.                                                  |
| <b>Smooth endoplasmic reticulum</b> | An organelle that forms an extensive network of flattened sack-like membranes known as cisternae. It extends out from the nuclear membrane into the cytoplasm of the cell and is involved in the production of lipids and steroids (hormones) needed by the cell.                                                         |
| <b>Centrioles</b>                   | A pair of organelles found in the cell that consist of small tubes of proteins known as microtubules. These organelles play an important role in mitosis (cell division) and the positioning of the nucleus in the cell.                                                                                                  |
| <b>Golgi apparatus</b>              | A complex structure consisting of stacks of membrane-bound, flattened, sack-like structures known as cisternae. It functions like a cellular post office which receives, sorts, labels and dispatches proteins around the cell to where they are needed.                                                                  |
| <b>Lysosomes</b>                    | Round, membrane-bound organelles that contain powerful digestive enzymes. They are the recycling centre, responsible for the disposal and recycling of waste materials within the cell. They contain enzymes that are used to break down invading microorganisms and digest old or unwanted proteins and cell organelles. |
| <b>Ribosomes</b>                    | Tiny organelles that can be found in the cytoplasm or on the surface of the rough endoplasmic reticulum. They are where new proteins are made.                                                                                                                                                                            |
| <b>DNA</b>                          | A molecule that contains our genetic instructions. It is made up of a four chemical bases: adenine (A), cytosine (C), guanine (G) and thymine (T). The order, or sequence, of these bases forms a set of instructions.                                                                                                    |

|         |            |                              |          |                 |
|---------|------------|------------------------------|----------|-----------------|
| DNA     | Chromosome | Rough endoplasmic reticulum  | Ribosome | Mitochondria    |
| Nucleus | Centriole  | Smooth endoplasmic reticulum | Lysosome | Golgi apparatus |

Find out the function of the different components and complete the table below:

| Cell component                                                                                                                 | Function in the cell                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>Nucleus</b></p>                        | <p>The largest of the organelles and is at the centre of the cell. It is the storage site of the cell's DNA.</p>                                                                                                                                                                                 |
|  <p><b>Chromosomes</b></p>                    | <p>Thread-like structures, made of DNA wrapped around a scaffold of proteins. Each human cell contains 46 of these structures. They contain specific regions of DNA, known as genes, sections of DNA that carry information required to make a molecule, usually a protein.</p>                  |
|  <p><b>DNA</b></p>                          | <p>A molecule that contains our genetic instructions. It is made up of a four chemical bases: adenine (A), cytosine (C), guanine (G) and thymine (T). The order, or sequence, of these bases forms a set of instructions.</p>                                                                    |
|  <p><b>Rough endoplasmic reticulum</b></p>  | <p>An organelle that forms an extensive network of flattened, sack-like membranes known as cisternae. It extends out from the nuclear membrane into the cytoplasm of the cell and is involved in the production, folding and transport of proteins produced by the ribosomes on its surface.</p> |
|  <p><b>Smooth endoplasmic reticulum</b></p> | <p>An organelle that forms an extensive network of flattened sack-like membranes known as cisternae. It extends out from the nuclear membrane into the cytoplasm of the cell and is involved in the production of lipids and steroids (hormones) needed by the cell.</p>                         |

| Cell component                                                                                                  | Function in the cell                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p><b>Golgi apparatus</b></p> | <p>A complex structure consisting of stacks of membrane-bound, flattened, sack-like structures known as cisternae. It functions like a cellular “post office” which receives, sorts, labels and dispatches proteins around the cell to where they are needed.</p>                                                                |
|  <p><b>Mitochondria</b></p>    | <p>Rod- or sausage-shaped organelles found inside cells. They are the power stations of the cell providing chemical energy in the form of adenosine triphosphate (ATP).</p>                                                                                                                                                      |
|  <p><b>Lysosomes</b></p>     | <p>Round, membrane-bound organelles that contain powerful digestive enzymes. They are the recycling centre, responsible for the disposal and recycling of waste materials within the cell. They contain enzymes that are used to break down invading microorganisms and digest old or unwanted proteins and cell organelles.</p> |
|  <p><b>Ribosomes</b></p>     | <p>Tiny organelles that can be found in the cytoplasm or on the surface of the rough endoplasmic reticulum. They are where new proteins are made.</p>                                                                                                                                                                            |
|  <p><b>Centrioles</b></p>    | <p>A pair of organelles found in the cell that consist of small tubes of proteins known as microtubules. These organelles play an important role in mitosis (cell division) and the positioning of the nucleus in the cell.</p>                                                                                                  |