Glucose: A Journey From Plate to Cell

Humans need energy

- Humans need a constant source of GLUCOSE to provide energy for living.
- Carbohydrate-rich foods, such as whole-grains, vegetables and fruits, are the main source of energy for humans.
- When we eat a meal, carbohydrates are broken down into glucose.
- Glucose is a very small molecule. It can travel around the body in our blood stream.

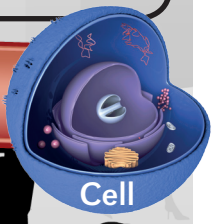
How does glucose get from the food we eat into our cells?

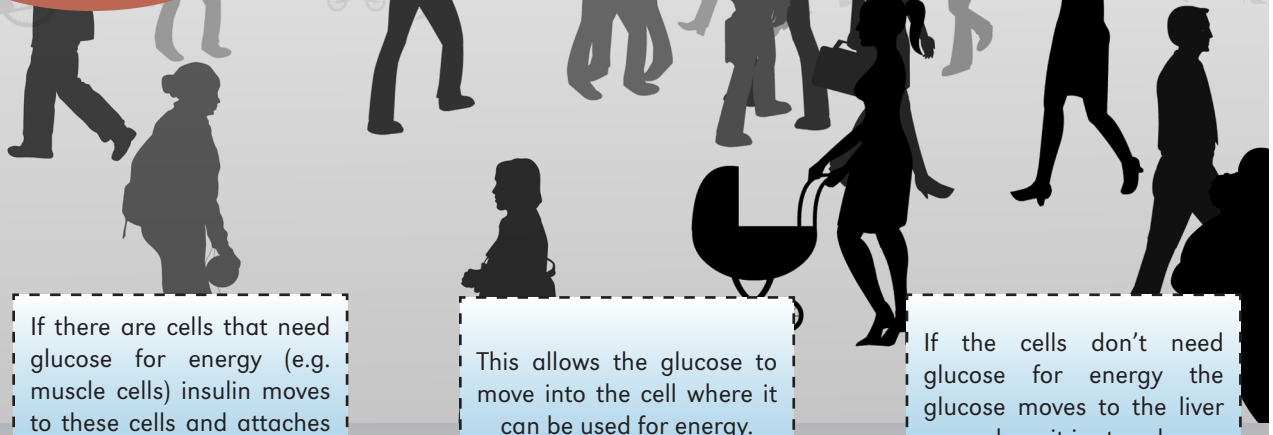
INSTRUCTIONS: Work in pairs

You will find information to complete this task from the Student Presentation Slides: Blood Glucose.

1. Read the statements in the boxes below.
2. Decide which order they should be in.
3. Copy each statement into the 'Sequencing Activity' template or cut and paste them in.
4. Draw a diagram to represent each stage. Quick and neat is good.
5. Join up with another pair and share your work. Compare your work and explain your decisions.

BLOOD STREAM





If there are cells that need glucose for energy (e.g. muscle cells) insulin moves to these cells and attaches to the surface of the cell.

This allows the glucose to move into the cell where it can be used for energy.

If the cells don't need glucose for energy the glucose moves to the liver where it is stored.

When the pancreas receives a message that there are higher levels of glucose in the blood it releases insulin into the bloodstream.

After the food we eat is broken down into glucose in the small intestine it can move out into the bloodstream.

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Sequencing Activity

Place the statements in the correct places to show the journey of glucose from the plate to a muscle cell.