

Topic	Hormonal and nervous systems	Level	GCSE (or any course for students aged 14-16)
Outcomes	To compare and contrast the hormonal and nervous systems of animals		

The Hormonal and Nervous Systems of Jack and John

Jack and John are aliens and live on a planet far, far away called Zog. They both have brains. Their bodies are made from cells, organs and tissues, just like humans. But there is one difference.

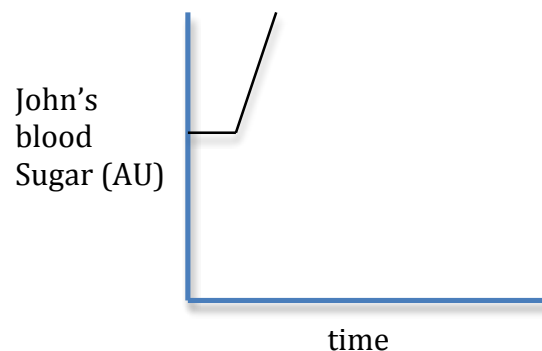
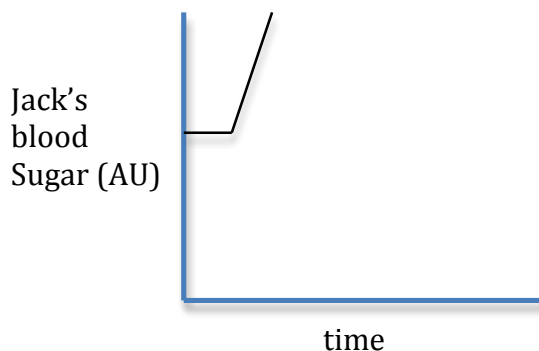
Jack is like John except he doesn't have a nervous system. Everything in his body is controlled by his hormonal system.

John is like Jack except he doesn't have a hormonal system. Everything in his body is controlled by his nervous system.



1. Jack and John stand on a drawing pin. How would their responses be different?
2. What tests could a doctor do to identify who was Jack and who was John?
3. Jack and John drink a bottle of coke containing lots of sugar. Sketch a graph to show **what you think** will happen to their blood sugar level.

The graph has been started for you.



4. How would John and Jack's lives be different?

Use information from the table below in your answer.

Feature	Nervous System	Hormonal System
Signal	Electrical impulses	Chemical impulses
Pathway	Neurones	Blood
Speed of information	Fast	Slow
Duration of effect	Short lived	Longer lived
Type of action	Voluntary or involuntary	Always involuntary
Target	Specific cells	Many cells

Progress: further resources on body system are available here:

<http://thescienceteacher.co.uk/organ-systems/>