

Science
Body Clock

Did you know that your body has its own built in clock? Your body uses chemical messengers called hormones to decide when to do things. It tells your body when to wake up, when to sleep, when to eat and when you are full. Different hormones increase and decrease in waves throughout the day.



Instructions:

- 1 Cut out the clock template (below).
- 2 What time do you wake up and what time do you go to sleep? Use a ruler to draw lines showing these times. Colour in your 'awake' time with a green pencil and your 'asleep time' with a blue pencil – using pencils means you can draw things on top!
- 3 What time of day do you feel most hungry? Draw a picture on your clock of your favourite food at the time you get most hungry.
- 4 The more of a hormone there is in our blood, the bigger the effect it has. Read the descriptions of the following hormones. For each hormone, mark on your clock when you think there is going to be a lot of it in your blood. (Use a different colour for each hormone):
 - A. Cortisol made and released by glands in our kidney. Cortisol helps control when we wake up.
 - B. Ghrelin Made by our stomachs, ghrelin tells our brain when we are hungry.
 - C. Leptin Made by fat cells, this hormone tells our body when we are full.
 - D. Melatonin Made by a tiny gland in our brain which releases more melatonin as it gets dark. This hormone makes our body feel sleepy.

Next steps: Hormones play lots of different roles in our bodies. As well as the ones you've learned about today, there are other hormones which help you grow, let you feel love or help you run away if you get scared.

Adults and children's body clocks run at different times. Ask your parents about their body clock and see how it is different from yours.

