**Homeostasis:**

What is homeostasis?

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What is negative feedback and what does it do?

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What regulates the body temperature and where can it be found?

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Vasoconstriction is …………………………………………………………………………………...

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Vasodilation is …………………………………………………………………………………...

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**In the heat:**

The hypothalamus detects a rise in blood temperature.

Temperature sensors in the skin are stimulated by the high temperature in the surroundings.

The hypothalamus sends nerve impulses to the structures in the skin:

**Arterioles** undergo v………………………………….. – this increases blood flow through capillaries just beneath the skin.

So more heat is lost through c………………………… and r…………………………….

**Sweat glands** in the skin produce lots of ………………………; the sweat on the skin’s surface e………………………. and this cools the body.

**In the cold:**

The h……………………………. detects a decrease in the temperature of the blood flowing through it. This is because temperature sensors in the skin are stimulated and send out an early signal.

**Arterioles** near the surface of the skin undergo v……………………………… So less heat is lost by r………………………… **Sweat glands** stop producing …………………

S………………………. by the muscles, which start to contract spontaneously and so release heat from r………………………………. Blood flows through the muscles and is warmed.