14 Homeostasis – Part 1

Name: _____ Class: _____ Date: _____

Vocabulary

Write each word three times.

English	**Write it 3 times** (English)		
Homeostasis			
stimulus			
receptor			
nervous system			
hormones			
effector			
negative feedback			

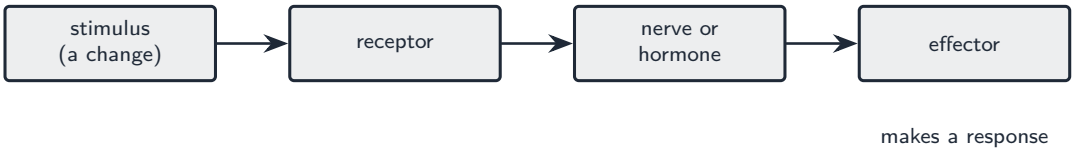
Recall

Homeostasis means keeping the inside of the body steady, even when the outside changes. This lets cells and enzymes work properly.

New ideas

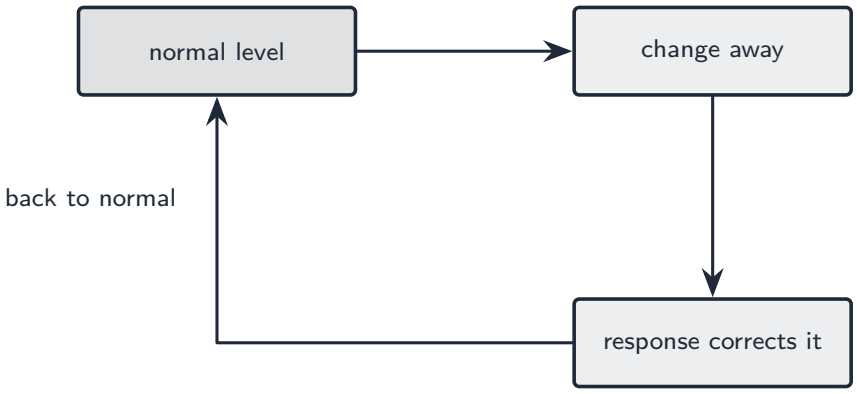
Read these first, then do the Practice.

1 The homeostasis path



- a change (a **stimulus**) is detected by a **receptor** ;
- a message is carried – by the **nervous system** or by **hormones** ;
- an **effector** (a muscle or gland) makes a response that corrects the change.

2 Negative feedback



This works by **negative feedback** : a change away from the normal level triggers a response that pushes it back.

Watch out: the path is stimulus → receptor → (nerve or hormone) → effector → response. Negative feedback always pushes the level *back towards normal* – it *opposes* the change.

Practice

Try these in order.

14.1 What does *homeostasis* mean? [1]

14.2 What detects a change (a *stimulus*)? [1]

14.3 Name the two systems that can carry the message. [2]

14.4 What is an *effector*? [1]

14.5 In *negative feedback*, which way does the response push the level? [1]

14.6 Challenge. When you are too hot you sweat and cool down; when too cold you shiver and warm up. Explain how both are examples of negative feedback. [2]