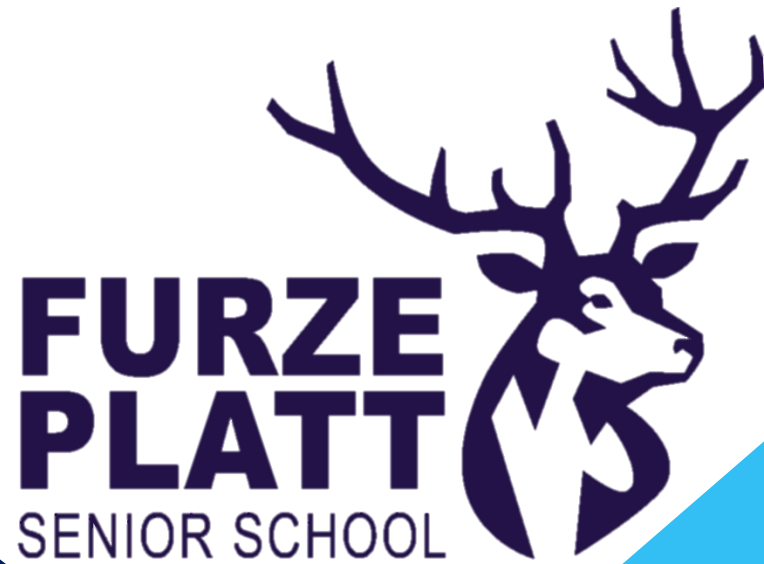




How to Revise

RAISING ACHIEVEMENT

AMBITIOUS

COLLABORATIVE

HAPPY

INTEGRITY

ENDURANCE

VERSATILITY

EXCELLENCE

A busy start to the year...

- September
 - Yr11 Preparing to Succeed
 - English/Maths PPE day
- October
 - Parent's Evening
- November
 - Full PPE week
 - Careers & Higher Education Fair

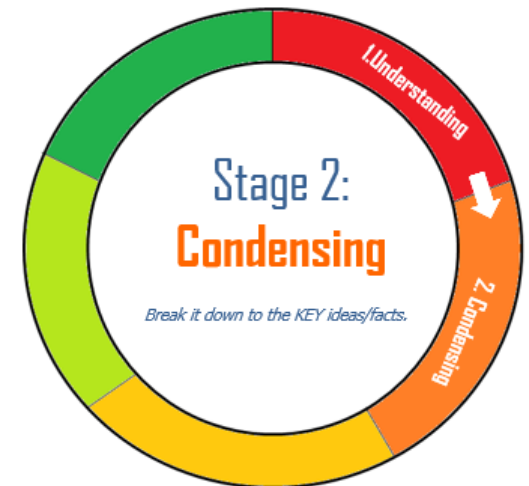
Time to reflect:

- Have you been fully engaged in all these activities?
- Did you prepare for your PPEs?
- Did your preparation help you?
- Were you emotionally resilient to confront your PPEs/grades?

**Revising is REVISITING,
not RELEARNING.**

Making Notes for Revision

- Do not sit and re-read the same thing –
this is not revising
- Highlight **key words** only
- Do not write full sentences
- Your revision notes are unique to you
- If you already know the information, you don't need to revise it
- You can use family/friends to test your knowledge
- Leave out information that is not needed
- Use **colours** and pictures, if this helps you remember



Condensing Info



B 10 The human nervous system

10.1 Principles

Learning objectives

After this topic, you should know:

- why it is important to control your internal environment
- the key elements of control systems.

Synoptic link

You learnt about the effect of temperature and pH changes on enzyme activity in Topic B35.

Synoptic link

You will learn more about the role of the hormonal system in Chapter B11 and the details of some specific homeostatic systems in the body in Chapter B12.

You know that enzymes only work at their best in specific conditions of temperature and pH. Enzymes control all the functions of a cell. The functioning of individual cells is vital for the way tissues, organs, and whole organisms work. It is important to respond to changes in the internal or external environment to maintain optimum conditions for the

nervous system



11th of Ramadan, to sunset, is maintain the blood and water balance of is of fasting

need to ranges in id to changes les get hotter, b, and in hot

matic control ses in your system. They

o function: external ceptors may be f the body. the

e regulation of ions of a cell intain optimum ction, in response ernal changes. portant for al conditions for d all cell functions. y homeostasis f blood glucose dy temperature,

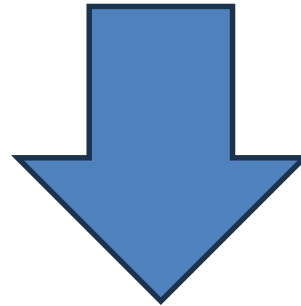
ontrol systems us or chemical

include receptors, es, and effectors.

information from the **receptors**. They send out **signals** and coordinate the **response** of the **body**. They include the **brain**, which acts as a coordination centre for both the **nervous system** and parts of the **hormonal system**, the **spinal cord**, and some **organs** such as the **pancreas**.

- **Effectors:** **muscles** or **glands** that bring about **responses** to the **stimulus** that has been received. These responses restore conditions in the body to the optimum levels.

444 Words



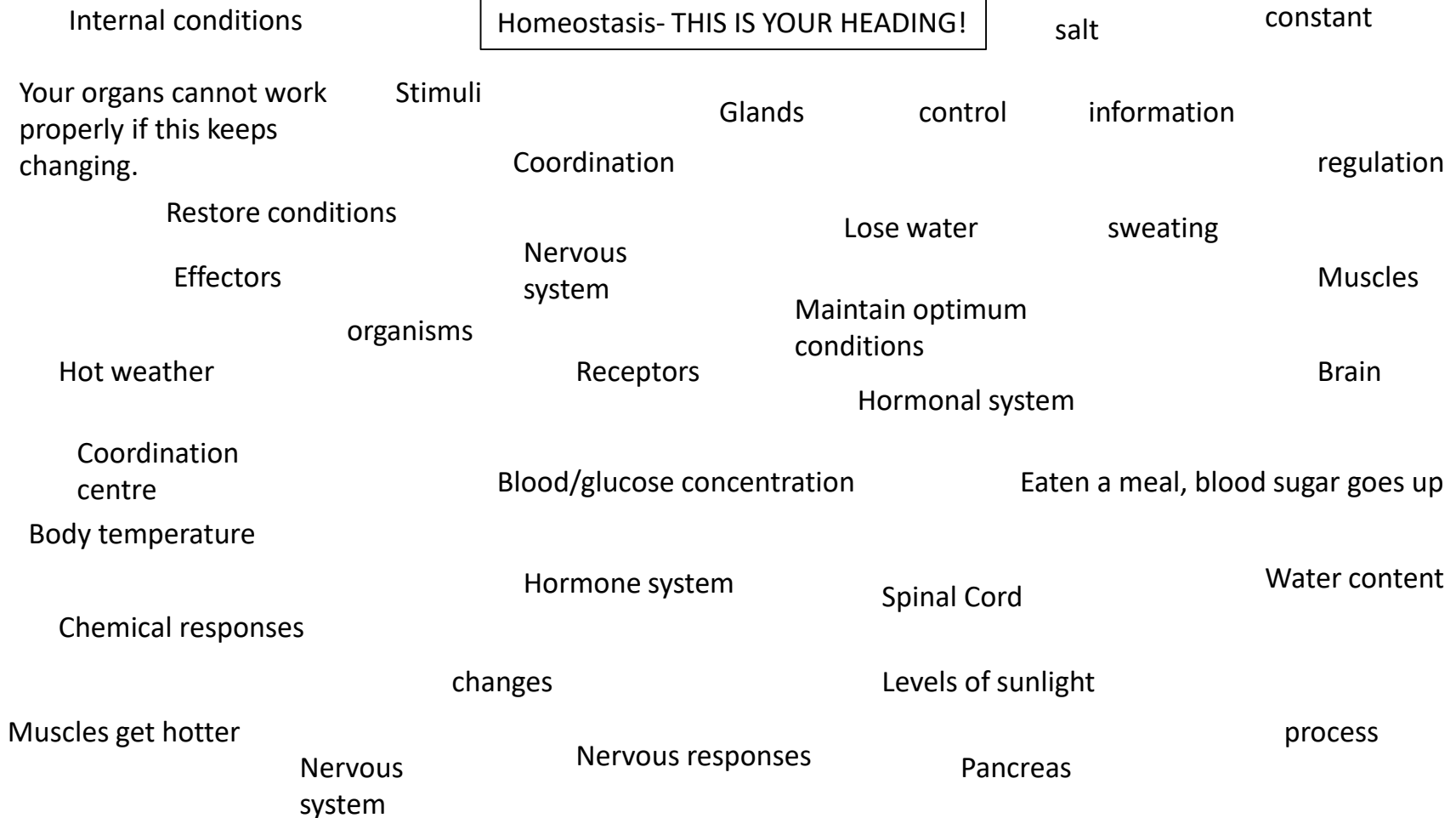
62 Words

Homeostasis in action

The conditions inside your body

Your organs cannot work properly if this keeps changing. Many of the processes that go on inside your body aim to keep everything as **constant** as possible. As well as the body as a whole, this includes the **regulation** of the **internal conditions of cells** to maintain **optimum** conditions for **functioning**, in **response** to **internal and external changes**. This balancing act is called **homeostasis**.

The words you've picked out...



Organise: Make a flashcard...



Homeostasis

Organs cannot work properly if internal environment changing.

- Regulation
- Maintain optimum conditions

- Coordination
- Control
- Organisms detect changes=Temperature/Sunlight

Exercise= hot muscles

Eat food= blood sugar levels UP

Hot weather= Lose Water/Salt through sweat.

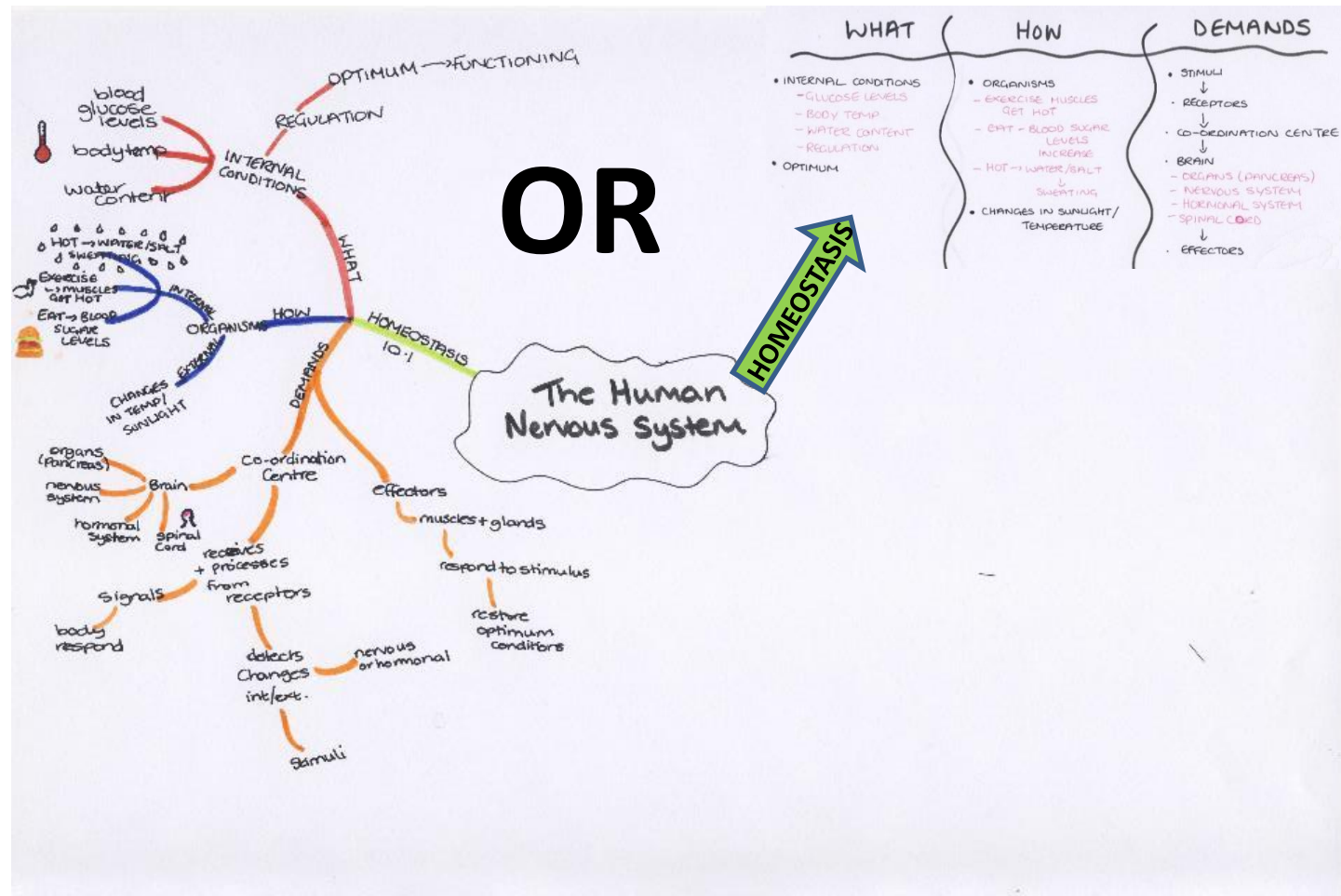
- Body Temperature
- Water Content
- Blood Glucose Concentration

Receptors- Detect changes
(Stimuli)

Coordination Centre- Process Info-
Brain/Nervous System/Hormonal
System/Spinal Cord/Pancreas

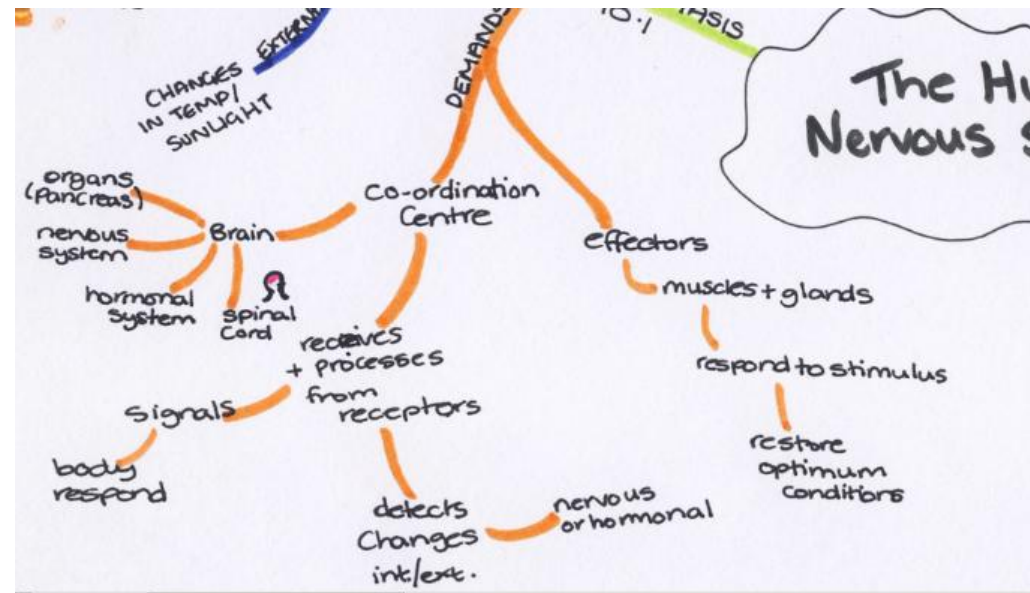
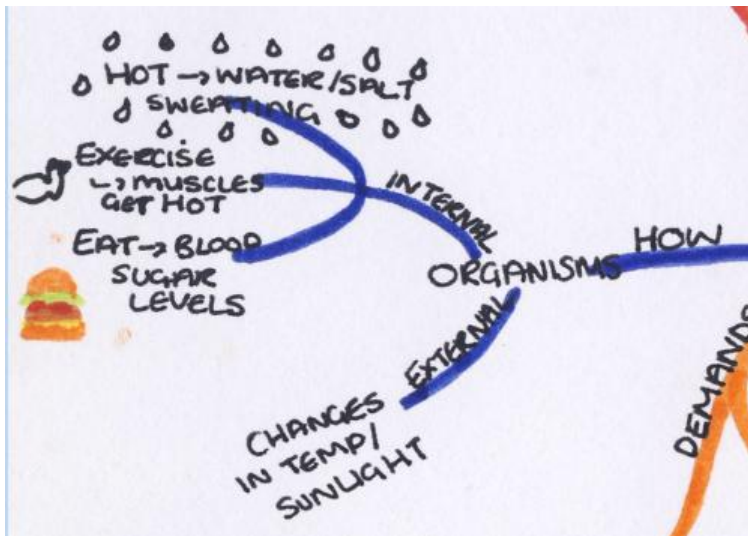
Effectors- Muscles/Glands Restore
Conditions.

Or make a mind-map.





Close-ups of the mind-map.





Optional: Organise information by colour

Learning objectives

After this topic, you should know:

- why it is important to control your internal environment
- the key elements of control systems.

Homeostasis in action

The conditions inside your body are known as its internal environment. Your organs cannot work properly if this keeps changing. Many of the processes that go on inside your body aim to keep everything as constant as possible. As well as the body as a whole, this includes the regulation of the internal conditions of cells to maintain optimum conditions for functioning, in response to internal and external changes. This balancing act is called **homeostasis**.

B3.4

You know that enzymes only work at their best in specific conditions of temperature and pH. Enzymes control all the functions of a cell. The functioning of individual cells is vital for the way tissues, organs, and whole organisms work. It is important to respond to changes in the internal or external environment to maintain optimum conditions for the cellular enzymes.

Internal conditions that are controlled include:

- body temperature
- the water content of the body
- blood glucose concentration

Working together

Homeostasis involves coordination and control. Organisms need to be aware of changes in the world around them, such as changes in temperature or levels of sunlight. They also need to respond to changes in the internal environment. When you exercise your muscles get hotter, when you have eaten a meal your blood sugar levels go up, and in hot weather you lose water and salt through sweating.

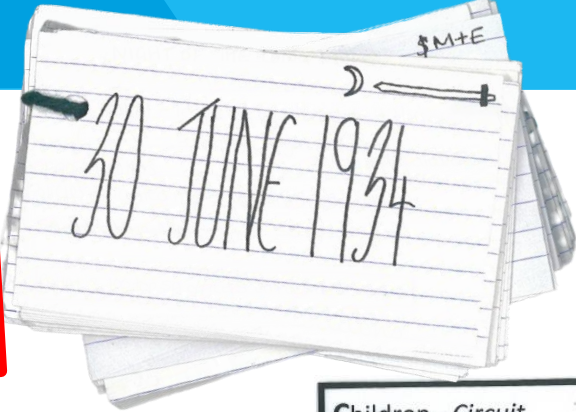
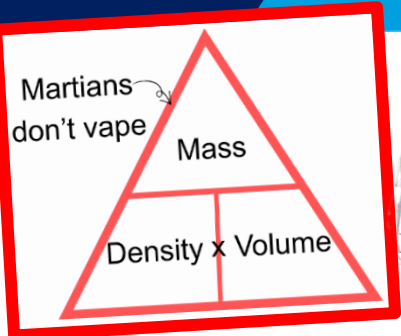
Detecting changes and responding to them involves automatic control systems. These automatic systems include nervous responses in your nervous system and chemical responses in your hormone system. They also involve many of your body organs.

The demands of a control system

All control systems in the body need certain key features to function:

- **Receptors**: cells that detect changes in the internal or external environment. These changes are known as stimuli. Receptors may be part of the nervous or the hormonal control systems of the body.
- **Coordination centres**: areas that receive and process the information from the receptors. They send out signals and coordinate the response of the body. They include the brain, which acts as a coordination centre for both the nervous system and parts of the hormonal system, the spinal cord, and some organs such as the pancreas.
- **Effectors**: muscles or glands that bring about responses to the stimulus that has been received. These responses restore conditions in the body to the optimum levels.

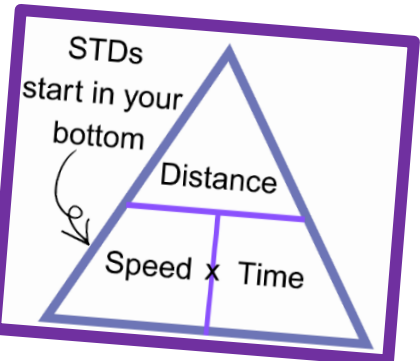
Be Creative!



Give yourself clues...

Use your artistic skills!

Make creative diagrams



Children - Circuit

Cry - Continuous

Pathetically - Plyometrics

When - Weight/Resistance

I - Interval

Fart - Fartlek

Methods of Training

Macbeth

VALIANT
"his brandish'd steel [...] smoked with bloody execution"

RESPECTED
"O valiant cousin! worthy gentleman"

CURIOUS
"Stay, you imperfect speakers, tell me more"

NOT NATURALLY RUTHLESS
"... too full o' the milk of human kindness"

PESSIMISTIC
"I have no spur to prick the sides of my intent, but only vaulting ambition, which o'erleaps itself and falls on th' other"

UNCONVINCED
"I dare do all that may become a man; who dares do more is none"

REGRETFUL
"Hark Duncan with thy knocking! I would thou couldst!"

COMMITTED
"I am in blood Stepp'd in so far that, should wade no more, Returning were as tedious as go o'er"

LOVING
"My dearest partner of greatness"

ADMIRE
"(Sergeant:) brave Macbeth well he deserves th' name"

HONOUR
"(Duncan:) his former greet Macbeth"

PENSIVE
"This supernatural soliciting cannot be good"

OVERWHELMED BY IMAGINATION
"function is: in surmise"

CONFLICT
"... his host [...] against his murd'ring shut the door, bear the knif myself"

GODLESS
"I had most need of blessing, and 'Am' stuck in my thro'"

DEVILISH
"Not in the legions of horrid hell can a devil more damn'd evils to top Macbeth"

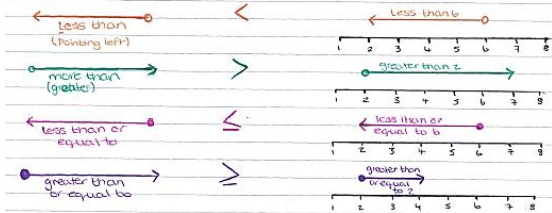
FEARLESS
"Till Birnam Wood remove to Dunsinane, I cannot taint with fear"

MISLED
"I will not yield to kiss the ground before young Malcolm's feet"

STUBBORN

Organise with colours!

INEQUALITIES



ELECTROLYSIS - breaking down using electricity

If breaking down ionic compound - compound → electrolyte

electrodes (made of unreactive substance)

positively charged ions move to cathode

negative ions move to anode

Then lose charge and become elements

* Atomic numbers (also tell you how many electrons)

An ion tells you how to turn it into a atom

O²⁻ (need to - 2 electrons)

Mg²⁺ (need to + 2 electrons)

SKILL RELATED FITNESS

POWER

COORDINATION

REACTION TIME

AGILITY

BALANCE

SPEED

Check your revision



1. Give a short and clear description for the term 'Homeostasis'.
2. Compare receptors, coordination centres and effectors.
3. Name three internal conditions that homeostasis controls.
4. State two ways in which your external environment might vary, and how your body responds to this.

To succeed, you need to



START EARLY

PRACTICE OFTEN

TEST YOUR
KNOWLEDGE

Active Recall – The Leitner Method



Leitner System For Flashcards

Every Day

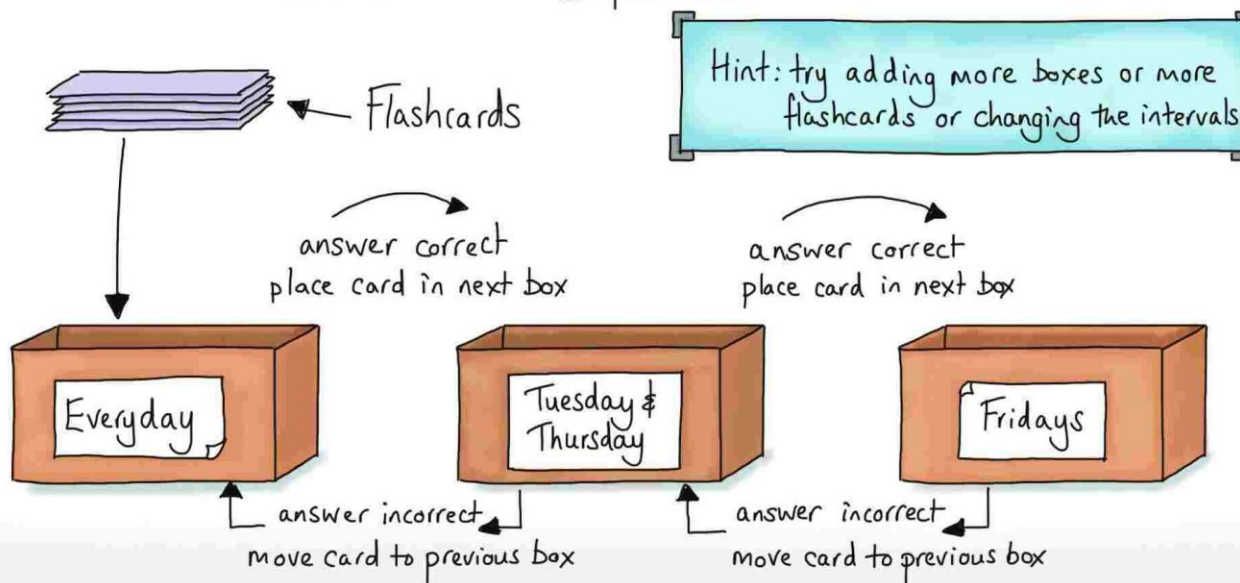
Tuesday &
Thursday

Mometrix
TEST PREPARATION

Copyright © 2018

LEITNER Flash card method

@ImpactWales



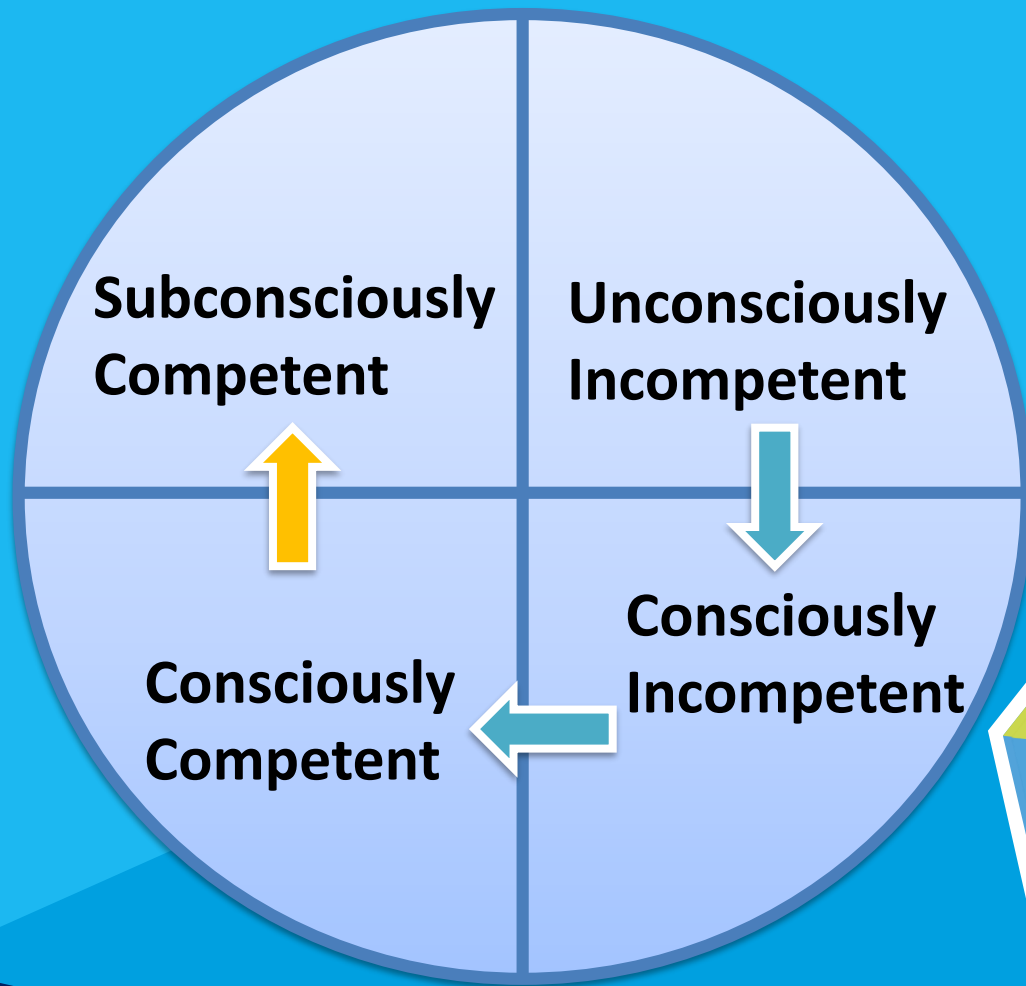
An effective use of flashcards to prompt & recall learning using spaced practice proposed by Leitner in the 1970s. It focuses on the proficiency of recall of the learner. Information which is easily recalled has a longer time lapse before the next recall opportunity.

Evaluate your revision



Be aware of what you know and what you need to learn/revise.

- **Did you know all the answers?**
- **Is there anything you need to go back over?**
- **Checking in – can you remember the information after a period of time?**



The secret
to getting
ahead is
getting
started



AMBITIOUS

COLLABORATIVE

HAPPY

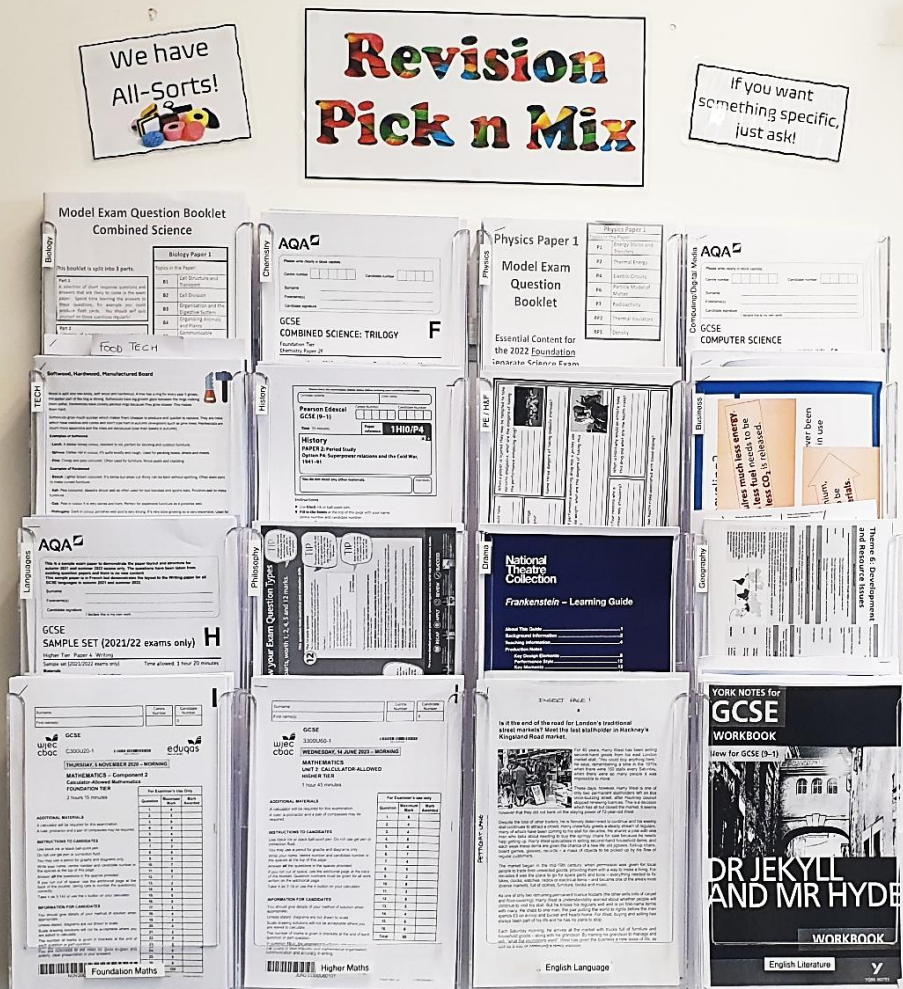
INTEGRITY

ENDURANCE

VERSATILITY

EXCELLENCE

Use RA resources

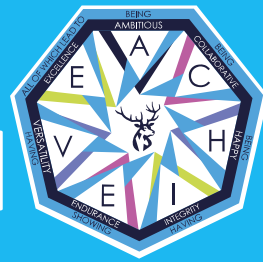


WANT TO REVISE?
Try the R.A. FPCloud!

- ✓ EXAM PAPERS & MARK SCHEMES
- ✓ KNOWLEDGE ORGANISERS
- ✓ INFO SHEETS
- ✓ QUOTATION BANKS
- ✓ REVISION GUIDES/WORKBOOKS
- ✓ REVISION TIPS
- ✓ VIDEOS

SCAN ME

➤ FPCLOUD
➤ CORE INFORMATION FOR STUDENTS
➤ RAISING ACHIEVEMENT
➤ YR 10/11



YR 11 REVISION CLINICS

MON	TUE	WED	THU	FRI
MATHS M1 & M2 3:15-4:15PM	ENGLISH LANGUAGE E4 3:15-4:00PM	ENGLISH LITERATURE E1 3:15-4:00PM	KS4/5 ART CLUB AR1 11:15 - 11:45AM	MUSIC MU2 3:15-4:15PM
PHYSICS S11 3:20-4:20PM	PHILOSOPHY & RELIGION PR2 3:15-4:00PM	MATHS M1 & M2 3:15-4:15PM	MUSIC MU2 3:15-4:15PM	GERMAN ML4 3:20-4:00PM
MUSIC MU2 3:15-4:15PM	SPANISH ML3 3:15-4:00PM	GEOGRAPHY G4 3:30-4:30PM		
	MUSIC MU2 3:15-4:15PM			

Need more support?

Debbie Feather – Raising Achievement Manager
debbie.feather@furzeplatt.net

Students - come visit us in
Raising Achievement (RA)

English Block, Top Floor

