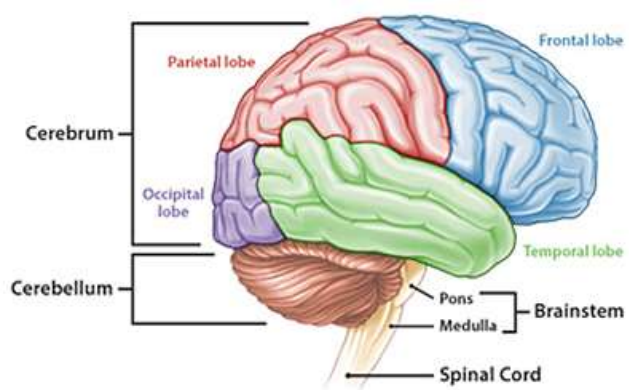
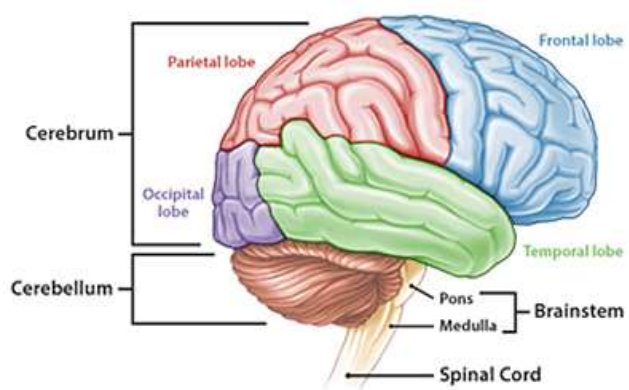


Welcome to Western House Academy's Saturday 'Neuroscience' School





- What is Neuroscience?
 - Why is it important?
- Where does our research come from?
 - What is it telling us?
 - What will my child learn?
- How will this help them to succeed?
- What will the morning 'look' like?
 - Any questions?



What is Neuroscience?

The scientific study of the nervous system (including the brain)

Why is it important?

Combining expertise from education, neuroscience and psychology can:

- help to develop evidence-informed teaching and learning practices
- dispel common misconceptions about how we learn and how the brain functions
- enable teachers to understand the research that is already available.



Where does our research come from?

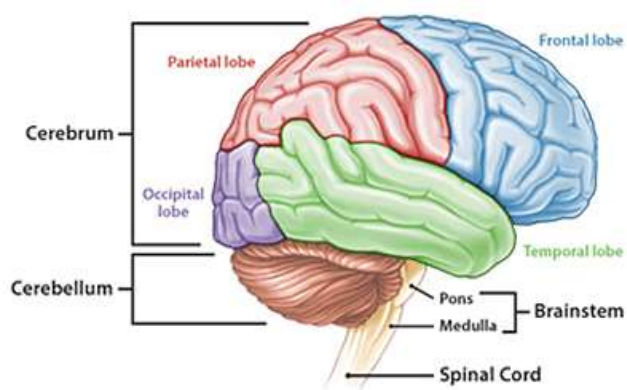
<https://educationendowmentfoundation.org.uk/>

Your Fantastic Elastic Brain – Dr JoAnn Deak

The Girl who never made mistakes – Mark Pett and Gary Rubinstein

Ned The Neuron – Youtube clips

<http://kidshealth.org/en/kids/brain.html>



What is it telling us?

Mathematics – Maths anxiety. Recruiting neural circuits for cognitive control of anxiety, with negative effects on working memory and the processing of number.

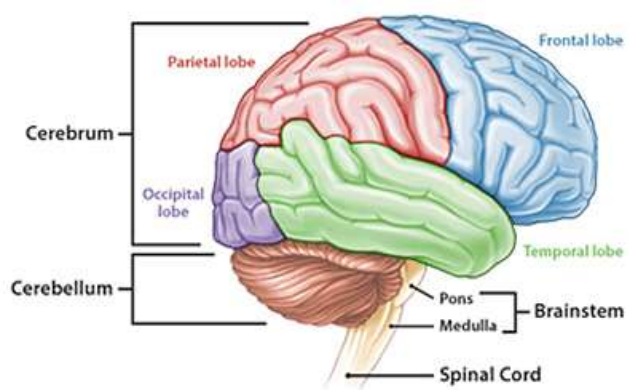
Reading. Mapping letter symbols to sound and comprehending meaning.

Exercise. Participating in physical activity to increase efficiency of neural networks.

Spaced learning. Learning content multiple times with breaks in between.

Testing. Being tested on studied material aids memory.





What is it telling us?

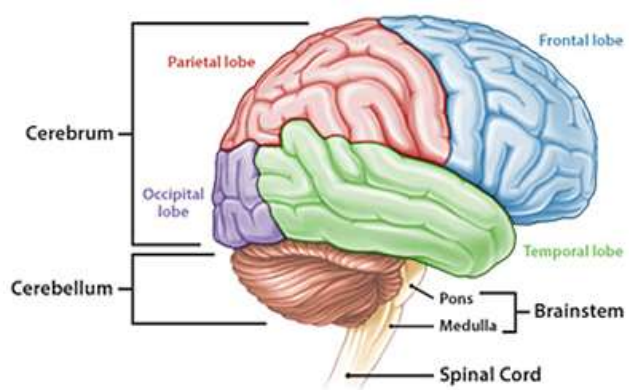
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What is it telling us?

Sleep, nutrition and hydration. Ensuring proper cognitive function and the consolidation of the day's learning through proper sleep, nutrition and hydration.

Brain training” of executive function. Using specific programmes to enhance functions such as reasoning, working memory and inhibition control.

Interleaving. Alternating different topics, as with spaced learning (in Group 1), ideas are revisited several times.

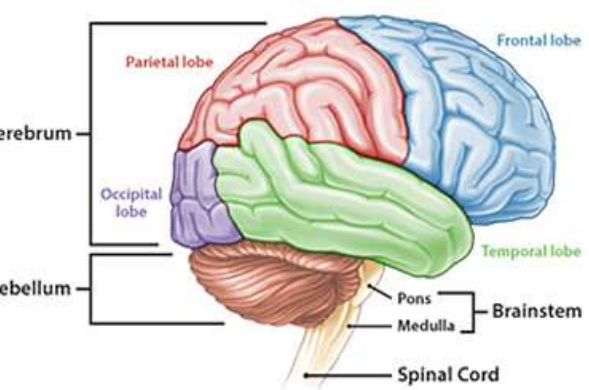
Learning games. Using uncertain reward within computer games to make learning engaging.

Creativity. Producing novel ideas and assessing their appropriateness.



Education
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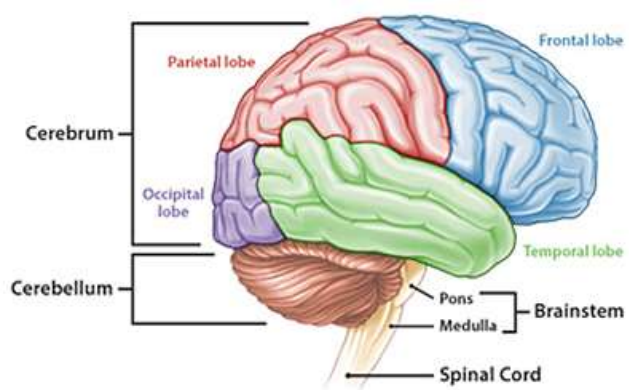


What is it telling us?

Genetics. Looking at the cognitive influences of genes

Personalisation. Selecting teaching approaches for different students.



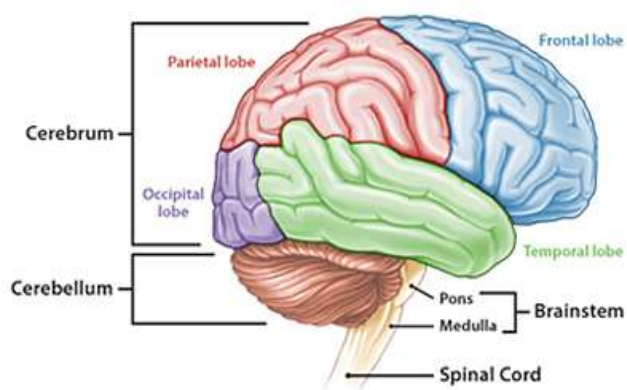


What will my child learn?

Primarily about how to use our brain to solve problems

- To understand that it is ok to fail
- Key awareness of core subjects
- Areas that parents highlight
- Areas that class teachers highlight
- Areas the students highlight
- Learning how to learn





How will this help them to succeed?

In the first instance, knowing that they can grow their brain through practice – is incredibly powerful

An understanding that it is okay to fail is hugely beneficial to build resilience in students

What will the morning 'look' like?

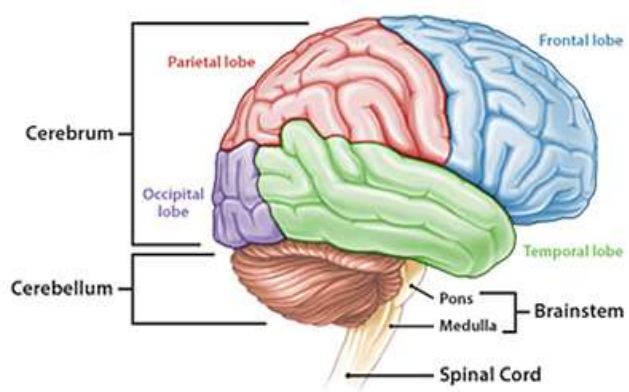
10am – Welcome and outline of day

10:10 – 10:35 – Learn about our brain

10:35 – 11:00 - Related work

11:00 – Snack/break time

11:20 – Individual support work



Any Questions?

Keeping in touch.....

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