QUALITY OF EDUCATION FOCUS

TWILIGHT 3 – MARCH 2025

Explaining and modelling

ALL

Technology & Adaptive Teaching

ALL

HoD with Emma

HoY with Seven Kings

ECTs with Danielle

SCHOOL DEVELOPMENT PRIORITIES

A1 To ensure **consistent** high-quality, **adaptive practice** in every lesson via the **planned curriculum** with a focus on embedding **inclusive and ambitious questioning**, whole class and live **feedback** and enabling **literacy** development.

A2 To ensure **consistency** on using assessments to **re-teach misconceptions** or gaps and ensure pupils have the tools to revise.

A3 To ensure **consistent** practice for all pupils in every lesson, ensuring teaching is **adapted** to support all our learners in every lesson.

A4 To ensure all learners commit to exemplary work and **presentation** in their books/work.

ENTRY ROUTINES

- Arrive on time to lessons.
- Meet and Greet pupils at the door.
- Remove outdoor jackets and wear full school uniform, including blazers.
- Be Ready for Learning.
- Start the independent DO NOW task of Review, Retrieval or Reconnect.
- Classroom Condition Level 1.
- The DO NOW is time bound.

GETTING LESSONS STARTED

- You and your class need a shared understanding of expectations and routines.
- Link behaviour management with learning.
- Get stuck into learning within minutes.

Establish arrival and entry routines.

Address the class, take the register.

Do Now: Be Ready to Recall, Retrieve or Reconnect to prior learning. Time-bound.

Set the context for the lesson within a sequence.

Discuss specific learning goals.

ENTRY ROUTINES – CONSISTENCY IS KEY

Suc
Ta
Consistency

EXPLAINING AND MODELLING

- The importance of effective explanations and modelling.
- Cognitive Load Theory in Practice.
- Eleni Christofides Examples

EXPLAINING AND MODELLING

Evidence informed teaching
Every lesson every day

1 Your Curriculum

Your curriculums have been sequenced and mapped.

The **Learning Journeys** provide you with the long-term plans (LTPs) and your **Medium Term Plans (MTPs)** set out the:

- Prior Learning
- Learning Objectives Knowledge/Skills
- Assessment
- Reading
- Vocabulary
- Homework
- Next Steps (Futures).

4 Getting lessons started

- Establish arrival and entry routines.
- Address the class, take the register.
- DO NOW: Be Ready to Review, Retrieve (from memory) or Reconnect to prior learning.

2 Plan to be adaptive and responsive

Aim to ensure your lessons are tailored to be inclusive, enabling all of your pupils (SEND, EAL and HPA) to be successful.

Consider adaptive teaching strategies, such as:

- **Clear Learning Objectives, Success Criteria (Goals). Same LO for all, but you might get there via a different route or at a different level**
- **Translations for EAL pupils**
- **Scaffold mats**
- **Sentence starters**
- **WAGOLLs and Exemplars**
- **Examples vs. Non-examples**
- **Modelling**
- **Alternative explanations**
- **Chunking - step-by-step**
- **Visualisers**
- **Visual support / Dual coding**
- **Mind mapping**
- **Planned questioning that is inclusive**
- **Telling pupil A you will ask**

3 Plan for literacy

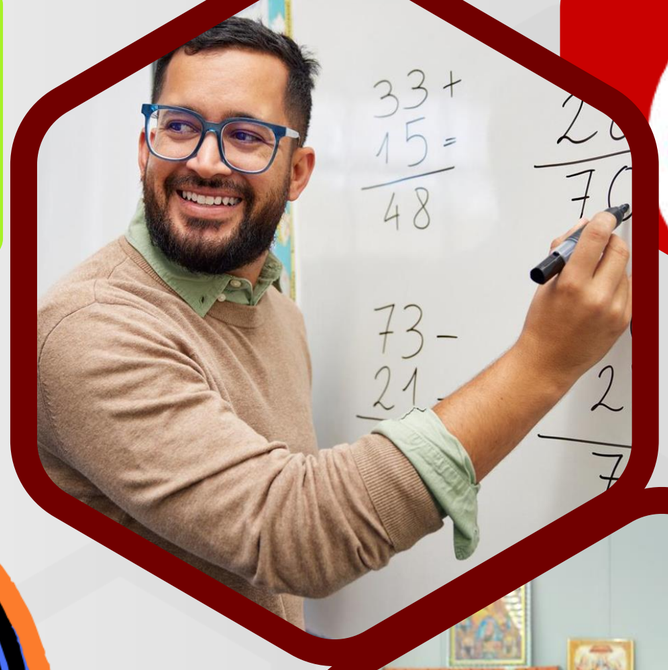
Plan for Reading (WalkThru 1 page 60). Improving pupils' rea confidence is cent the curriculum as

Reading is built MTPs.

- Make readi to your pla
- Identify ke 3 vocabula and writing
- Plan reading resources.
- Plan for strate reading.

5 Explaining and modelling

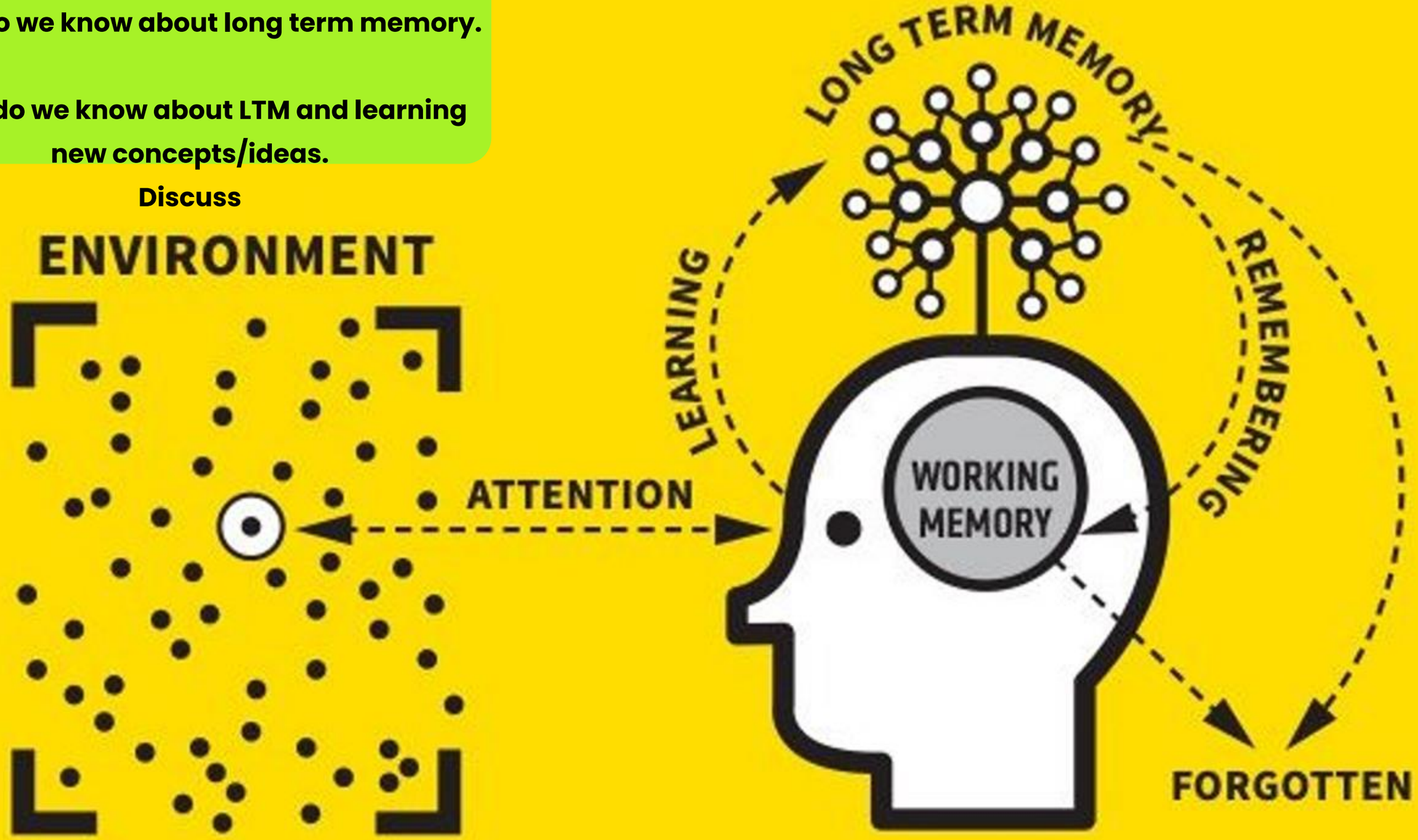
A central feature of effective teaching is enabling pupils to develop their knowledge and understanding of concepts and processes and their ability to apply their learning to a range of situations. Select the appropriate Classroom Conditions and develop your explanations by:



What do we understand about the Working Memory?
What do we know about long term memory.

What do we know about LTM and learning new concepts/ideas.

Discuss

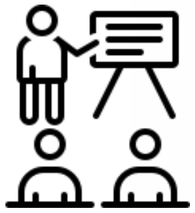


COGNITIVE LOAD THEORY

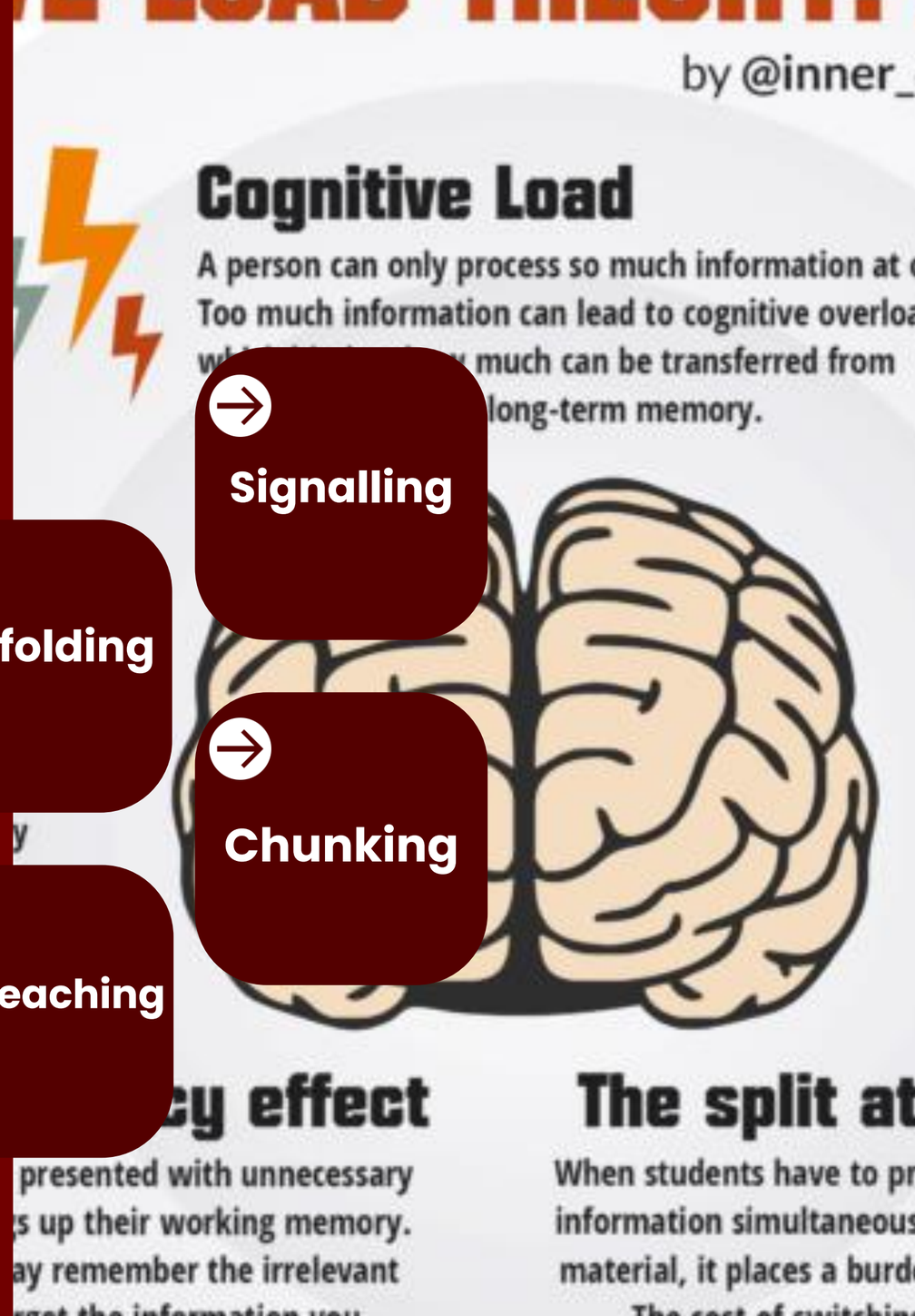
Cognitive load is referred to as the amount of information that our working memory capacity can hold at one time.

Working memory can only deal with a limited amount of information at one time. Temporarily holds and manipulates information.

This working memory is easily overwhelmed when processing large amounts of new or complex information, leading to reduced comprehension and retention.



Nonetheless the Working Memory plays an important role in the learning process as it pays attention to the instructions shared as well as holding onto bits of the new ideas and concepts.

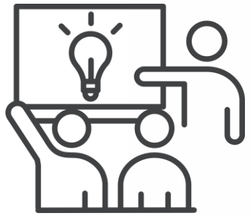


COGNITIVE LOAD THEORY

The cognitive load of learners indicates the amount of mental activity carried out by the working memory to perform a specific learning task.

Through the learning process pupils move their new learning from their working memory to the schema in their long term memory where knowledge builds on knowledge and they become more fluent.

The greater the amount of information taught at once, the greater are the chances that pupils will not retain it. Due to this, it is crucial to manage the mental workload of learners efficiently.



Therefore, we can design lessons, plan for instructions and explanations, that respect these limitations, enhance learning experiences and prevent cognitive overload.

- Coherence
- Signalling
- Redundancy Principle
- Clarity is Key

What does this mean for a our everyday practice

How can we reduce the cognitive load?

Discuss

Cognitive Load Theory Explained

What strategies do you use to reduce the cognitive load in your lessons? Share and discuss.

Adaptive and Responsive teaching

Adjusting teaching strategies to match learners' proficiency levels.

Clear instructions, explanations Clarity is Key

Simple and well thought out in order to not increase the extraneous load.

Simplifying the design of an educational activity and try to avoid making it unnecessarily complex.

Allow pupils to focus on what you want them to learn rather than complicated instructions.

Be concise and coherent. Focus on the essential facts.

Chunking

Chunking is breaking down large amounts of information into small chunks.

Chunks help us understand concepts better and retain information longer.

They also allow us to focus on just one concept at a time instead of having to juggle multiple ideas.

Declutter your presentation

Clear visual aids such as diagrams or charts.

Accessible fonts and colours.

Reduce unnecessary visual distractions.

Dual Coding to support visual and auditory.

What strategies do you use to reduce the cognitive load in your lessons? Share and discuss.

Level 1 Classroom Condition

Don't speak when pupils are on task.

sssshhhhhhhh.

Silence is Golden.

Link to prior learning

Make explicit links with prior learning to help students integrate the new information into their long-term memories

Scaffolding

Detailed scaffolding examples:

- Word lists
- Diagrams
- Dual coding
- Sentence starters

Whole task scaffold examples:

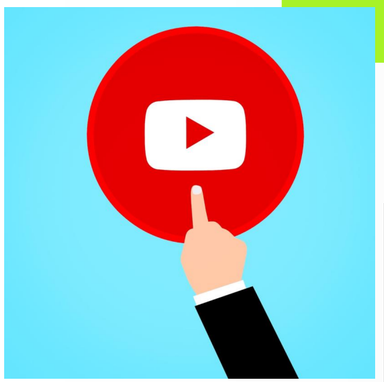
- Essay structure strips
- Partially completed examples
- Exemplars

Remember to remove the scaffold!

Flipped Learning or Pre-teaching

If pupils arrive to lesson with some knowledge this will reduce the intrinsic load - *the level of difficulty contained within the information or task.*

What are the 5 Principles of Reducing Cognitive Load



Reduce extraneous cognitive load

Eliminate irrelevant information

Highlight key information by attaching graphics

Place graphics near text

InteDashboard™

Manage intrinsic cognitive load

Present information in small segments

Introduce key terms and principles beforehand

InteDashboard™

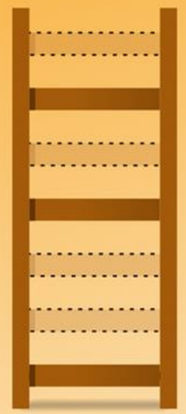
What strategies do you use to reduce the cognitive load in your lessons? Share and discuss.

Scaffolding Support

NOVICE → EXPERT

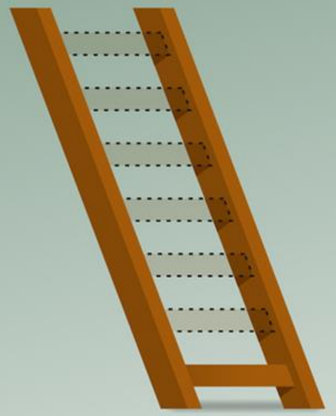
Worked Examples

This is a problem that has already been solved for the student, with every step fully explained. This is helpful for novice learners. By showing them the strategy, they can devote all of their working memory to applying the information to the problem at hand.



Completion Tasks

This is similar to a worked example, but instead of showing all the steps, only a partial solution is given. The students then have to complete the test themselves. This is more appropriate if the students have more knowledge about the topic, as they can make the appropriate links themselves.



Independent Problem Solving

This is a task where students are simply given a question and they have to choose the correct strategy and solve the problem themselves. This is appropriate for students with a large knowledge base and high levels of confidence in that domain.

TEACHING WALKTHRUS CLUSTERS SERIES EXPLAINING & MODELLING

THE WALKTHRUs RESOURCE HUB.

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WORKED EXAMPLE & BACKWARD FADING


TEACHING WALKTHRUS

E&M | 70
DUAL CODING

TEACHING WALKTHRUS

E&M | 72
DELIBERATE VOCAB DEVELOPMENT

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DEVELOPING READING FLUENCY


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SUMMARISING ACADEMIC READING


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GIVING A PRACTICAL DEMONSTRATION

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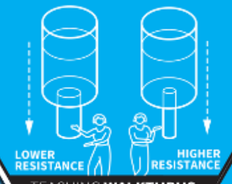
ANALOGIES


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E&M | 90
CHUNKING

TEACHING WALKTHRUS

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COMPARE, CONTRAST & CATEGORISE

TEACHING WALKTHRUS

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EXEMPLARS

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ADDRESSING COGNITIVE DIFFICULTIES

TEACHING WALKTHRUS

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GIVING AN EXPLANATION

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EXAMPLES & NON-EXAMPLES


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SEQUENCES, CAUSES & CONSEQUENCES

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THE CREATIVE WRITING PROCESS


TEACHING WALKTHRUS

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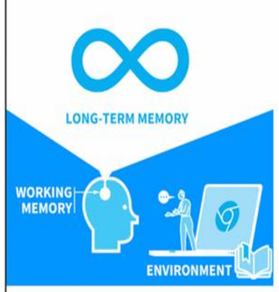
MODELLING HANDOVER: I DO, WE DO, YOU DO

TEACHING WALKTHRUS

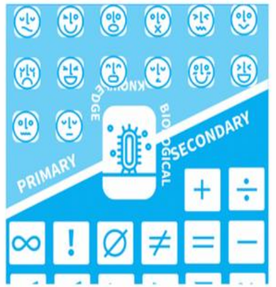
THE WALKTHRUs
RESOURCE HUB.

THE A|B|C|D|E OF COGNITIVE LOAD THEORY

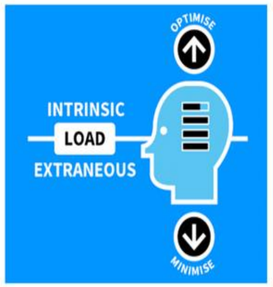
1 2 3 4 5



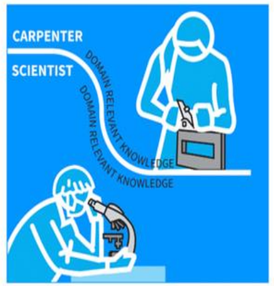
ARCHITECTURE OF HUMAN MEMORY



BIOLOGICALLY PRIMARY AND SECONDARY KNOWLEDGE



CATEGORISE COGNITIVE LOAD AS INTRINSIC OR EXTRANEOUS



DOMAIN-GENERAL vs DOMAIN-SPECIFIC SKILLS

ELEMENT INTERACTIVITY

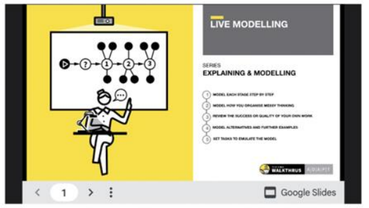
TEACHING WALKTHRUS
SECTION WHY?

- Cognitive Load Theory is a collection of instructional recommendations based on an understanding of how humans perceive, think, and learn.
- Originating from the work of John Sweller, each instructional recommendation has been validated through rigorous randomised controlled trials.
- CLT research is relentlessly practical. Sweller says 'the ultimate aim of CLT is to provide instructional effects leading to instructional recommendations'.

WalkThrus Online Platform

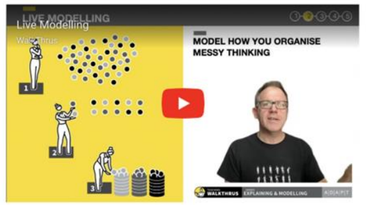
Username: walkthrus@wansteadhigh.co.uk
Password: teacherdevelopment@whs

1. Login to the **Members Area:** https://www.walkthrus.co.uk/members-area
2. **Members Area** (from the top right)
3. Scroll down to the Resource Hub
4. Select: Explaining and Modelling (or whatever the WalkThru is that you're Coaching on)
5. Select: Yellow Hexagon on Live Modelling
6. **Take 10 minutes to view the content and discuss the opportunities.**



SLIDES | CLICK TO VIEW & DOWNLOAD

1. Slides – identical to the book page.

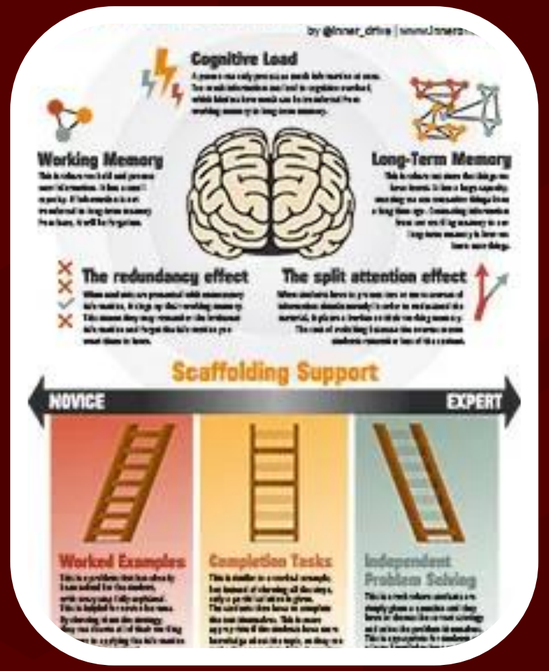


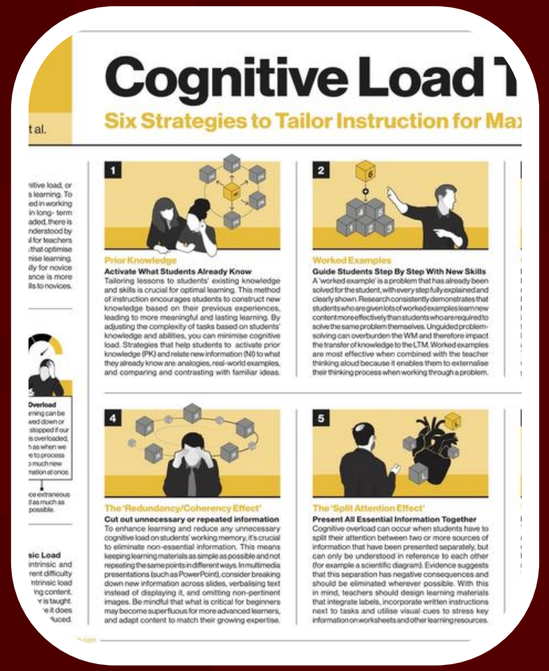
EXPLAINER VIDEO | CLICK TO WATCH

2. Explanation of the importance.

COACHING VIDEO | CLICK TO WATCH

3. A Coaching Video - Example





FURTHER READING

Video Clips

- Cognitive Load Theory 3 – intrinsic, extraneous, germane.
- Cognitive Load Theory, How Do I Apply It?
- Cognitive Load Theory: A Teacher's Guide

EXPLAINING AND MODELLING

The importance of effective explanations and modelling.

Cognitive Load Theory in Practice.

Eleni Christofides

Examples