

# TEACHING AND LEARNING BULLETIN SPRING 1

February 2022

## South Wirral High School

We know that in our school every teacher has talent and teachers in this school are open to learning. These bulletins are designed to highlight important aspects of Teaching and Learning and improve our pedagogical knowledge, they stimulate our thinking in an accessible and efficient way! If you would like to contribute to these please let me know [lathamh@southwirral.wirral.sch.uk](mailto:lathamh@southwirral.wirral.sch.uk)

## ADAPTING OUR AMBITIOUS CURRICULUM FOR THE NEEDS OF THE INDIVIDUAL!

The quality of teaching is by far the biggest factor within schools that can make a difference to the achievement of children and young people. Quality teaching is defined as effective teaching which leads to improved student achievement using outcomes that matter to their future success.

Here at South Wirral High we teach to the top and challenge our students to think hard, but we know our students well and so know that, for a variety of reasons, including SEND that some students need our curriculum to be adapted for them so they can experience the best that has been thought and said in our subject area just like everyone else.



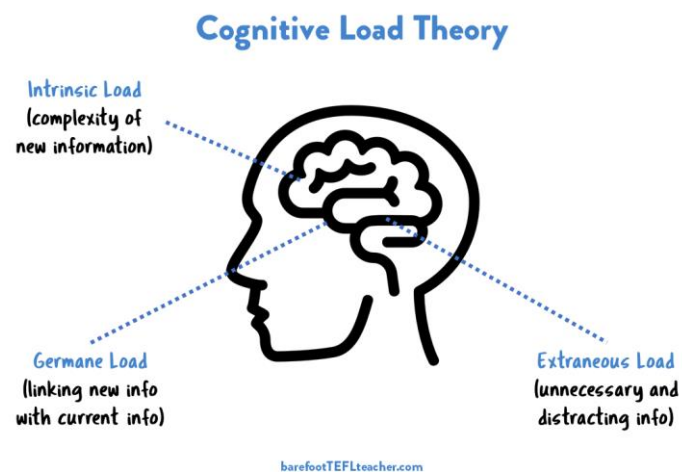
All kids need is a little help, a little hope, and someone who believes in them”  
~ Magic Johnson

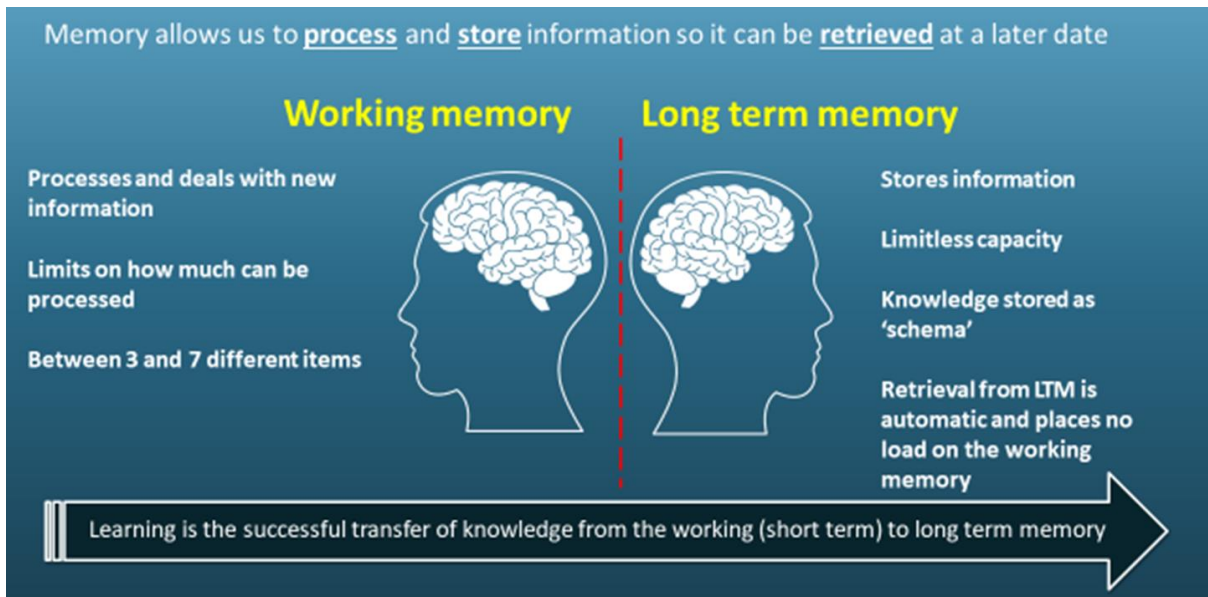
# How do we adapt the curriculum for students' individual needs?

1. By carefully thinking through our **seating plans** to ensure SEND students have equity of access
2. By **understanding individual needs** and understanding how to adapt our subject teaching for **ASC, ADHD and dyslexia**.
3. By deploying **Teaching Assistants** effectively, following our “Principles for TA Deployment”
4. By adapting our **teaching resources and teaching environment** for neurodiversity
5. By adapting the **South Wirral Way** for neurodiversity
  - Routine practice recall
  - I do
  - We do
  - You do
  - Review

## Cognitive load

A shared understanding of cognitive load can help us adapt our teaching to make learning more effective for all students but it has particular efficacy with students with SEND. Cognitive Load Theory is the idea that only a certain amount of information can be held in the short term memory (working memory and that overloading the working memory means that things won't be remembered. Memory is made up of Working Memory (which processes new information -your cognitive load) and Long Term Memory (which is the storage and retrieval aspect). Working memory can hold between 3-7 pieces of information (Millers Law) at a time, it processes that information and discards it. We use it for following instructions and day to day activities. Long Term memory has endless capacity. Moving information from the working memory to the long term memory is the key to learning. Long Term memory stores knowledge in 'schemas' when we practice using schemas they combine and increase in complexity so reducing the load on the working memory. i.e. the more knowledge we have the easier it becomes to learn more as our schemas develop.

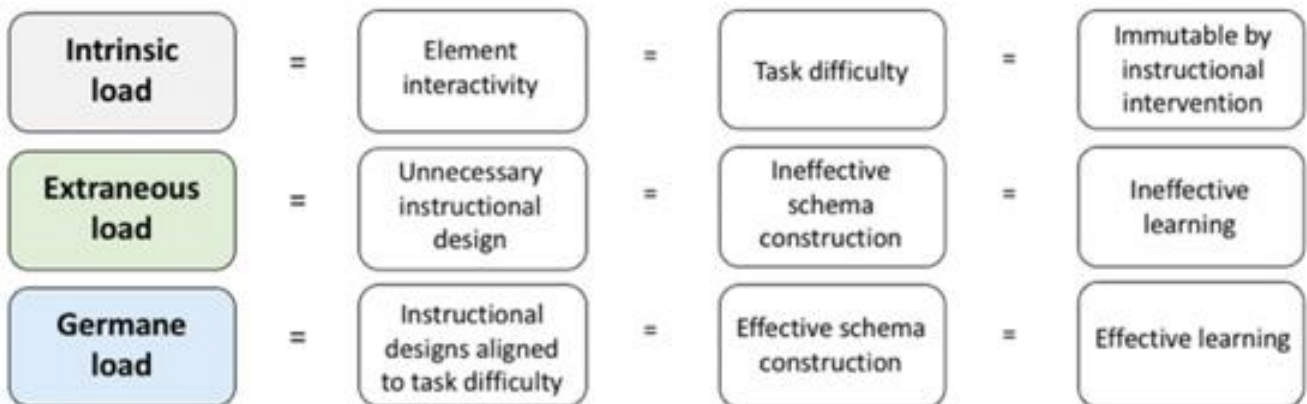




Our cognitive load is made up of

- Intrinsic load -the effort needed to understand the content, how difficult it is (limited to 3-5 items)
- Germane load- the effort needed to store it in the long term
- Extraneous load -irrelevant elements, the way the information is presented

## Cognitive Load Theory





## Top Tips

1. To be sure something has been learned, test regularly and frequently, successful retrieval increases storage strength.
2. High confidence errors are hyper-corrected- the more confident you are that something is correct when it is not, the less likely you are to repeat that error so the best person to mark to the test is the person who took it e.g. Low stakes quizzes
3. Build knowledge on what they already know - make links from other areas of the curriculum
4. Dual Coding -talk about the diagram adding auditory information to visual information as these are processed differently, Integrate visual information i.e. use labelled diagrams
5. Use worked examples giving step by step guidance
6. Chunk information
7. Cut out noise
8. Face students so they can read your lips when introducing new terminology
9. Less is better- remove anything non essential
10. Be concise - every word counts use bold text, bullet points and headings


# EXAMPLES OF YOU DO TASKS ADAPTED FOR COGNITIVE LOAD


How much energy does a snail have? Wednesday, 26 January 2022

  $KE = 0.5 \times \text{mass} \times \text{speed}^2$



1. A car that travels at a speed of 20m/s and has a mass of 1200 kg.
2. A year 11 pupil with a mass of 55kg swinging back on their chair and falling off it at a speed of 0.6m/s.
3. A runner with a mass of 62kg running at a speed of 0.8m/s.
4. A tennis ball travelling at a speed of 46m/s with a mass of 58kg.
5. A dog running across a field at a speed of 1.2m/s with a mass of 3.2kg.
6. Two motorbikes travelling at 10 m/s. One with a mass of 500kg and one with a mass of 100kg.
7. What does doubling the mass do to the amount of kinetic energy?
8. Two identical motorbikes of mass 500kg. One traveling at 10m/s and one at 20m/s.
9. What does doubling the velocity of a vehicle do to its kinetic energy? Explain your answer.
10. A ball has a velocity of 15m/s and a kinetic energy of 5000J. What is its mass?
11. A plane has a mass of 200 000kg and a kinetic energy of 300 000 000J. How fast is it going?

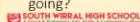




How much energy does a snail have? Wednesday, 26 January 2022

Find the Kinetic energy of:

1. A car that travels at a speed of 20m/s and has a mass of 1200 kg.
2. A year 11 pupil with a mass of 55kg swinging back on their chair and falling off it at a speed of 0.6m/s.
3. A runner with a mass of 62kg running at a speed of 0.8m/s.
4. A tennis ball travelling at a speed of 46m/s with a mass of 58kg.
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Fill out your purple strip

**How does the Sun newspaper use language to describe Liverpool fans?**

Pick a quotation and complete the table.

What impression does the newspaper create of the fans? Provide a quote.	How does the writer use techniques and specific words to create this impression?	Why has the writer done this? What is their aim? What is their perspective?
<p><b>Antibulance crew were punched, kicked and urinated upon by a hooligan element in the crowd</b></p>		
<p><b>Liverpool fans noticed that the blouse of a girl trampled to death had risen above her breasts.</b></p>		

Before adaptation

**WAGOLL**

Firstly, The Sun newspaper presented Liverpool fans as thugs who saw Hillsborough as an opportunity to cause further chaos, "Fans urinated on police, pick-pocketed dead victims and presented brave PCs giving the kiss of life to some of the victims." The use of listing highlights the endless list of crimes the fans were accused of committing. Additionally, the verb 'urinated' makes it seem like the Liverpool fan had a complete lack of respect to those who were dying, making it appear that they had no morals. Furthermore, the verb phrase 'pick-pocketed' implies that the fans are petty thieves and criminals. As the newspaper is tabloid, we can infer that they have tarnished the reputation of Liverpool fans and made up lies to sell papers.

**Support Slide**

<p>This question asks you to explore how the writer crafts language to convey meaning</p> <ol style="list-style-type: none"> <li>1) What is the overall impression created?</li> <li>2) What quotes show this?</li> <li>3) How does the writer use specific techniques to create the effect?</li> <li>4) How does the writer use specific words?</li> <li>5) Why have they done that? What is the intended effect on the reader?</li> </ol>	<p><b>Structure strip</b></p> <p>The writer presents the Liverpool fans as</p> <p>"Insert quote"</p> <p>The writer uses (language technique) to highlight...</p> <p>This suggests...</p> <p>The (adj/noun/verb) implies...</p> <p>Additionally, this may reveal...</p> <p>The writer may have done this to...at the time of the text is...</p>
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After

# DYSLEXIC STUDENTS

Dyslexic pupils need:

- a structured, orderly, consistent environment
- no more than one or two verbal instructions - break into **bite-size chunks**
- a *simultaneous* multisensory structured approach to language learning that uses all three pathways of learning: visual, auditory and kinaesthetic-tactile
- time to respond / process what has been heard / allow **additional time** to complete work - consider **GCSE Access Arrangements**
- **key vocabulary** on hand outs or equipment
- **repetition of instructions**

Pupils who have difficulty following directions are often helped by teachers/ TAs asking them to **repeat the directions in their own words**. The student can repeat the directions to a peer when an adult is unavailable.

# STUDENTS WITH ADHD/ADD

Students with ADHD/ADD need:

- **structured, orderly, consistent environment** - seat away from obvious distractions
- **clear, fair, firm expectations**
- **clear instructions** both verbal and written
- **no surprises** - **warn of changes to lesson routine**
- **one task at a time.**
- learning broken into **bite-size chunks** - a **tick-list** can be useful
- **you to remain calm** at all times.
- **planned movement breaks** and allow the child to move around the room, when appropriate.
- **clear instructions or an action plan for 'time out'**
- may sometimes use a subtle fiddle toy when listening

# STUDENTS WITH ASD






Students with ASD need:

- **a structured, orderly, consistent environment**
- you to use their **name** to gain attention
- to process **one sensory input** at a time
- **to avoid surprises** - give warnings of any changes to the normal routine of the class/lesson, for example if going to be taught by a cover supervisor or supply teacher
- **specific, targeted praise**
- you to back up verbal instructions with written resources
- you to try to **avoid irony or sarcasm**, explain what is meant; there may be a tendency for literal understanding
- **additional time to process** information
- **you to do NOT draw attention** to the student.
- **'time out'** as required.
- allow subtle use of fiddle toy e.g. tangle for some students

# THE SOUTH WIRRAL WAY

From this advice it is clear that the routines established using the South Wirral Way for teaching and for conduct provide a predictable environment in which students with individual needs can thrive. It chunks knowledge, focuses on vocabulary and encourages thinking time

# Best Practice for the South Wirral Way

	<ul style="list-style-type: none"> <li>• Does our recall focus on the most valuable knowledge – from Knowledge Organisers?</li> <li>• Does our recall ask students to recall at least one piece of vocabulary from the Knowledge Organiser?</li> <li>• Does our recall ask students to recall from the short, medium and long term?</li> <li>• Is our recall relevant to the lesson being taught, involving components that contribute to the composite being taught.</li> <li>• <i>Are our recall tasks planned and shared across the Faculty?</i></li> <li>• Do we routinely clarify, re-explain, or re-plan future learning, based on student responses?</li> </ul>
	<ul style="list-style-type: none"> <li>• Do we take every opportunity possible to read aloud to students, or ask them to read aloud to the class, teaching the difficult words and question their understanding?</li> </ul>
	<ul style="list-style-type: none"> <li>• Do we ask demanding questions - we propose to ask at least two “hot questions” in every lesson and to call them that.</li> <li>• Do we move swiftly from “we do” to “you do”?</li> </ul>
	<ul style="list-style-type: none"> <li>• Do we routinely scaffold the tasks to support individual students?</li> </ul>
	<ul style="list-style-type: none"> <li>• Do we routinely clarify, re-explain, or re-plan future learning, based on student responses, throughout the lesson?</li> </ul>