Spalding High School

Teaching and Learning

Teaching and Learning Target 2024-2025

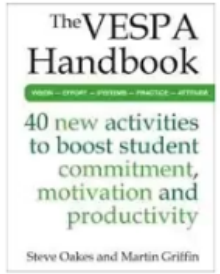
Our goal is to promote independent study and foster a sense of student agency.

“It is about acting rather than being acted upon; shaping rather than being shaped; and making responsible decisions and choices rather than accepting those determined by others.”

OECD Future of Education and Skills 2030 ‘Conceptual learning framework’

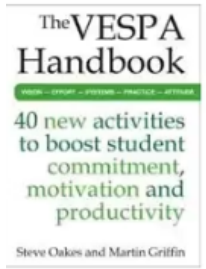
Divers and Thrivers

- In September 2024, Martin Griffin (teacher, writer, educational researcher) joined us to speak to sixth form students and parents about the characteristics of high-performing students.
- Much of what he said is as relevant to Year 10 students beginning their GCSE courses as it is sixth form students starting their A Level journey.
- One of the research studies Martin shared with students and parents was called ‘Divers and Thrivers’, which looked at the non-academic characteristics of incoming college freshmen.



Divers

- Goals focussed on having things; success, riches, owning businesses
- Impatience for positive experiences – wanted the course to be easy straight away
- Procrastination, difficulty in getting down to work
- Higher hours worked in paid employment; lower levels of independent study
- Last-minute cramming



Thrivers

- Goals that focus on 'impact on society' – purpose-driven, less concerned about money, riches
- Expect higher grades of themselves
- Declare an intention to study harder (3hrs more per week than divers)
- Frequent use of self-imposed deadlines throughout the year - value self-discipline as a quality
- Less tolerant of risk-taking in exams, well prepared, less cramming

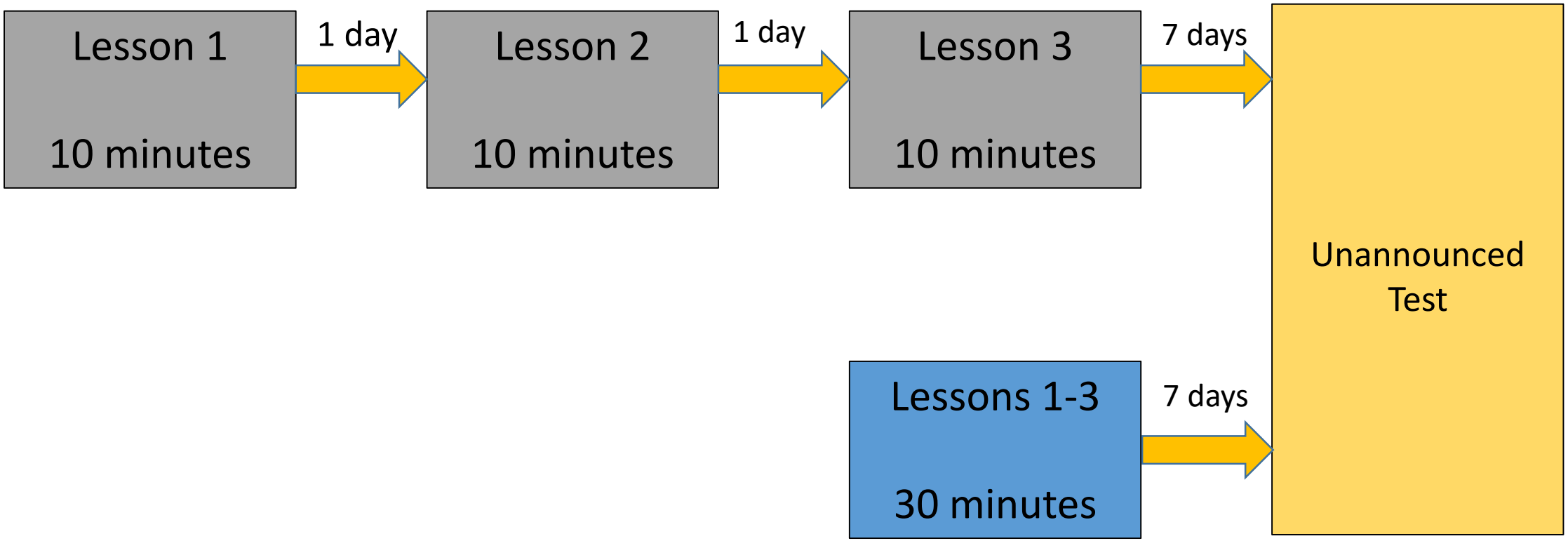
Homework

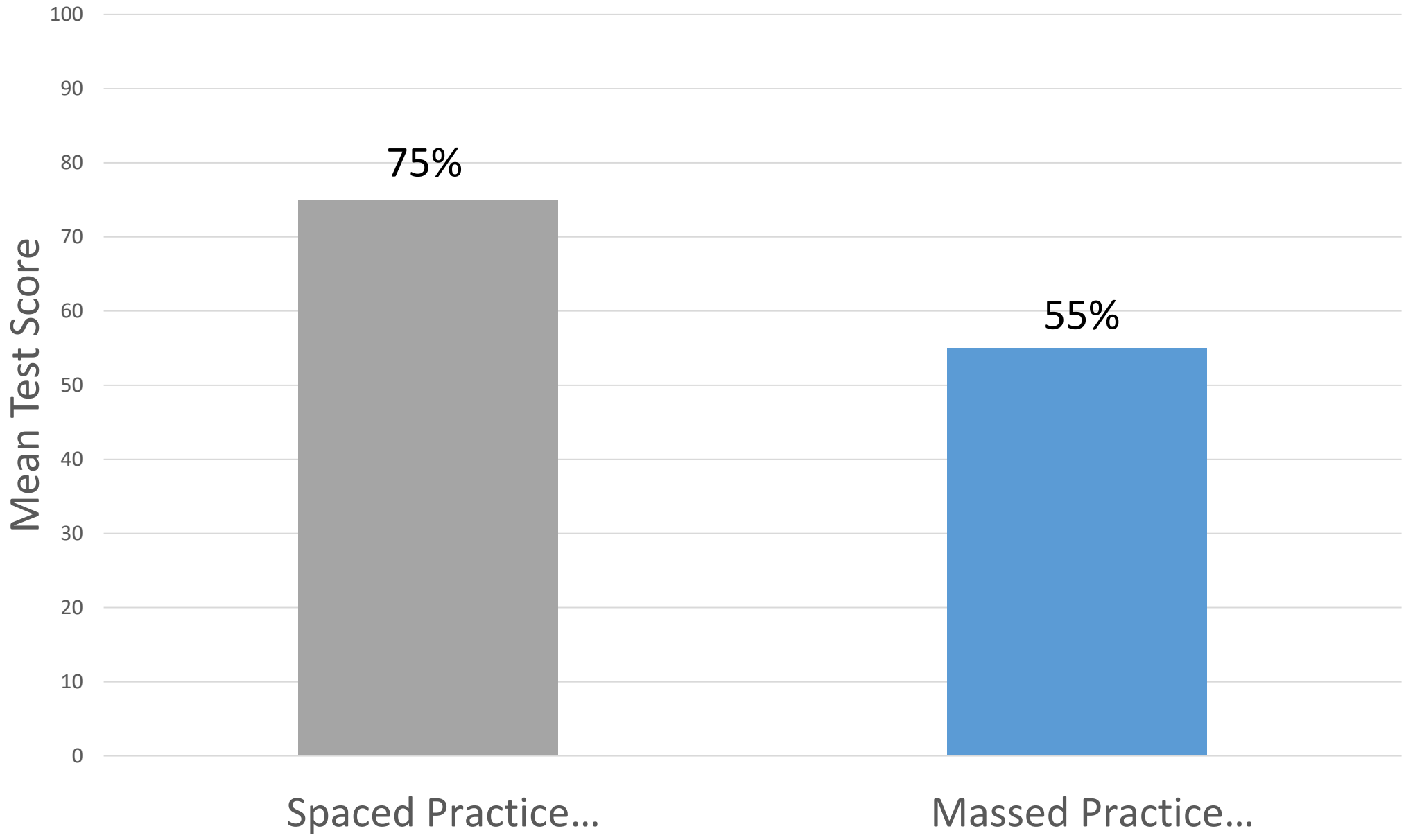
- In this section, we spoke to students and parents about homework, including:
  - The differences between KS3 and KS4 homework in terms of complexity, volume, duration and independence.
  - The research as to the impact of homework at secondary level N.B. the research is clear that homework at secondary level really does improve how well students achieve.
    - According to John Hattie (renowned education researcher from New Zealand), the impact size of homework at secondary level is +0.64 which is ‘excellent’.
    - Research by the Educational Endowment Foundation suggests that homework has a positive impact on average (+5 months), particularly with pupils in secondary schools.

Spaced Practice

- In this next section we spoke to students about the importance of spaced learning. The ‘Divers and Thrivers’ research study found that ‘divers’ tended to cram for assessments.
- We shared with students and parents Ebbinghaus’ Forgetting Curve and explained that forgetting is human/ normal, and that the biggest drop comes immediately after learning new information (as quickly as 20 mins).
- If we want to retain information we need to revisit it frequently. This is known as spaced learning.
- Finally, we shared with students and parents the outcomes of a US research study by John Dunlosky from Kent State University – see next slides.

Spaced practice




100
90
80
70
60
50
40
30
20
10
0
Mean Test Score
75%
55%
Spaced Practice…
Massed Practice…

Homework

How can parents help?

- Create a routine
- Provide guidance without doing the work
- Encourage independence and responsibility
- Stay informed
- Provide positive reinforcement
- Encourage breaks and physical activity

Proactive or Reactive

- In this section we shared another clip of Martin Griffin talking about the importance of being proactive rather than reactive.
- Please see the ‘Proactive or Reactive’ document for further details.

Proactive or Reactive

There are two types of work you do on any course:

Reactive work is completed in response to instruction. This includes classwork, where, during a class, a teacher asks you to discuss something in pairs, or complete a particular task, or asks you a question. Reactive work also includes homework: though you do it on your own time you're doing a task chosen by someone else with a deadline they've.

Then there's **proactive work**. This is the work you set yourself. No-one's asked you to tidy your notes or re-write a topic summary or create some flashcards – you've done it because you know it will help.

We've interviewed thousands of students and asked them about their levels of reactive effort versus their levels of proactive effort. Here's what we've found:

Entirely reactive	**Mostly reactive Proactive on rare occasions**	**A balance of reactivity and proactivity**	**Some reactivity, but mostly proactive**
These students *only complete work if they're told to*. They've often never set themselves any work – even in the run-up to exams, they go to extra classes and react to the instructions they get there.	These students complete almost all their work because they're told to. Now and again, if there's a crisis, they'll spend a small amount of time proactively – revising for a test or tracking down some missing notes.	These students are close to matching their reactive work with proactive work. They're regularly setting themselves work; re-reading and tidying notes, asking questions, reading textbooks and submitting redone essays.	These students get their reactive study out of the way pretty quickly, completing it to a high standard so they can get on with more proactive work. They enjoy the proactive work, exploring topics in detail and challenging themselves.
Outcomes: These students almost always get the lowest grades in the year group.	**Outcomes:** These learners find themselves towards the bottom of most groups, but have the potential to climb up.	**Outcomes:** These students tend to be in the middle or towards the top of most of their classes.	**Outcomes:** These students are almost always at the top of their classes, and often end up getting places at the best universities.

What does this mean for you?

A good way to ensure much better grades is to shift your focus towards proactive study. This isn't easy if you've never really done it before. Below are some suggestions for how you might do it: 21 possible pieces of work you could set yourself.

We've split them into three groups. **The easy tasks** – the first seven – just consolidate your classroom learning. Try these if you've never worked proactively before. **The medium tasks** extend you beyond the classroom work and really boost your learning. Try these if you're feeling confident. And the last seven, **the challenges**, are great if you're on top of everything and really exploring beyond the syllabus.

EASY

1. tidying and re-organising your notes, 2. borrowing someone's notes, 3. reviewing your feedback to look for patterns, 4. handing a piece of homework in early and asking for advice on how to improve it before deadline day, 5. completing a one-hour re-read and re-organise of notes on any topic, 6. attending a support class or revision session, 7. summarising a topic in a single page of notes and diagrams

MEDIUM

8. seeking a book/study guide recommendation from a teacher, 9. handing in a re-done piece of work, 10. sending five emails asking for support, help, advice or an opportunity, 11. asking five complex questions of a teacher and noting down the answers, 12. listening to a podcast related to a topic you've studied, 13. watching a video-summary of a topic, making fresh notes as you go. 14. seeking out three short exam questions related to a topic and completing them under timed conditions

CHALLENGES

15. beginning a personal project to explore a topic studied at a level above yours, 16. contacting employers or employees to ask questions, 17. volunteering to teach someone else the topics you know inside out, 18. seeking out a reading list for a subject at a higher level than yours, 19. entering a competition or challenge, 20. organising a study-visit to an employer or place of study, 21. interviewing a student working at a higher level than you and summarising their advice in notes.

Getting Started and Building Up

Starting out: In the early stages of learning to be proactive, try and complete one or two proactive tasks a week, spending about half an hour on each. Choose the 'easy' ones.

Aiming for a balance: Once you're more confident, you can up your proactive hours, closing the gap between your reactive study and proactive study until they're balanced. You might be able to do this by completing loads of the 'easy' tasks above, but the likelihood is you'll be doing some 'medium' ones too. You'll begin to see your grades improve – your teachers might even express some surprise at how well you're doing!

Hitting your stride: Once you're close to a balance of reactive and proactive, try introducing a few of the tasks labelled 'challenges' into your working week. By this time, you'll be regularly performing well in tests and exams and should feel much more optimistic and confident!

Closed Book Notetaking

- This section underlined the importance of active recall and how retrieving beats reading and rereading.
- Reading and rereading are unsophisticated study strategies that do not lead to positive outcomes.
- Please see the ‘Closed Book Notetaking’ document for further details.

Closed Book Notetaking

Two psychologists working in Indiana in the US[1] studied four revision techniques and their impact on test performance. 80 volunteer students were split into four groups before the test:

1. **Single-reading study**. In this group, students had to read a chapter once.
2. **Repeat-reading study**. In this group, students had to read a chapter four times.
3. **Mind-mapping**. In this group, students read the text once, summarising it in a mind-map.
4. **Active recall**. In this group, students read the text once, then covered it up and tested their recall by writing out as much of it as they could remember in two practice tests.

Before they began the experiment the students taking part were asked to predict which group would perform best on the test.

- What do you think the students predicted would be the most effective technique?
- You know that activities like these have surprise punchlines, so you're probably guessing the students were wrong. And they were. So in the light of that – what's *your* guess as to the technique that was most efficient?

Let's take this a step further. There were two types of question asked in the test, mixed up so the students didn't know what to expect.

1. Question type 1 were 'recall questions.' Students had to answer simple questions about the information that had appeared in the text.
2. Question type 2 were 'inference questions.' These questions were harder, asking students to connect ideas and concepts, requiring deeper knowledge.

Now guess which techniques yielded which results! For the simpler recall questions:

	Which technique?
Winners: 65% of questions correct	
Runners Up: 45% of questions correct	
Third place: 40% of questions correct	
Last place: 27% of questions correct.	

Jeffrey D. Karpicke, Janell R. Blunt, Department of Psychological Sciences, Purdue University, West Lafayette, IN 47907, USA. Journal *Science* 11 Feb 2011:

For the more complex inference questions:

	Which technique?
Winners: 70% of questions correct	
Runners Up: 57% of questions correct	
Third place: 55% of questions correct	
Last place: 28% of questions correct.	

The same technique won both times: *active recall*. It was the technique that the students thought would work least-best of the four, but in fact it worked the best of the four! It just goes to show that our instincts about revision are often wrong.

Testing yourself will lead to better performance than re-reading notes *four times*. Think of the time you could save.

So active recall is definitely a technique you should add to your studies. A great way of adding active recall to your studies is to try Closed-Book Notetaking. Here's how to do it:

Closed-book Notetaking: an active recall study technique in five steps

First, you'll need to chose something you want to learn. You'll need a section of textbook – not too long – or a study guide or some notes you've already made. Once you've chosen what you're aiming to learn, here's what to do:

1. Read the section of textbook/information *without taking notes*. Really connect and concentrate as you read and highlight.
2. Now close the book/put the notes away.
3. Now write notes on the section you've just covered without looking at the information! It will feel hard. You might get frustrated. You won't be able to remember everything. No problem; leave lots of space to add forgotten information. Scatter the notes around the page with subheadings and leave lots of white paper.
4. When you're done, open the book or turn over the notes. Re-read once, then close the book again. Now note-take for a second time but…
5. …add the stuff you missed or forgot in another colour, filling the white space you left first time around.

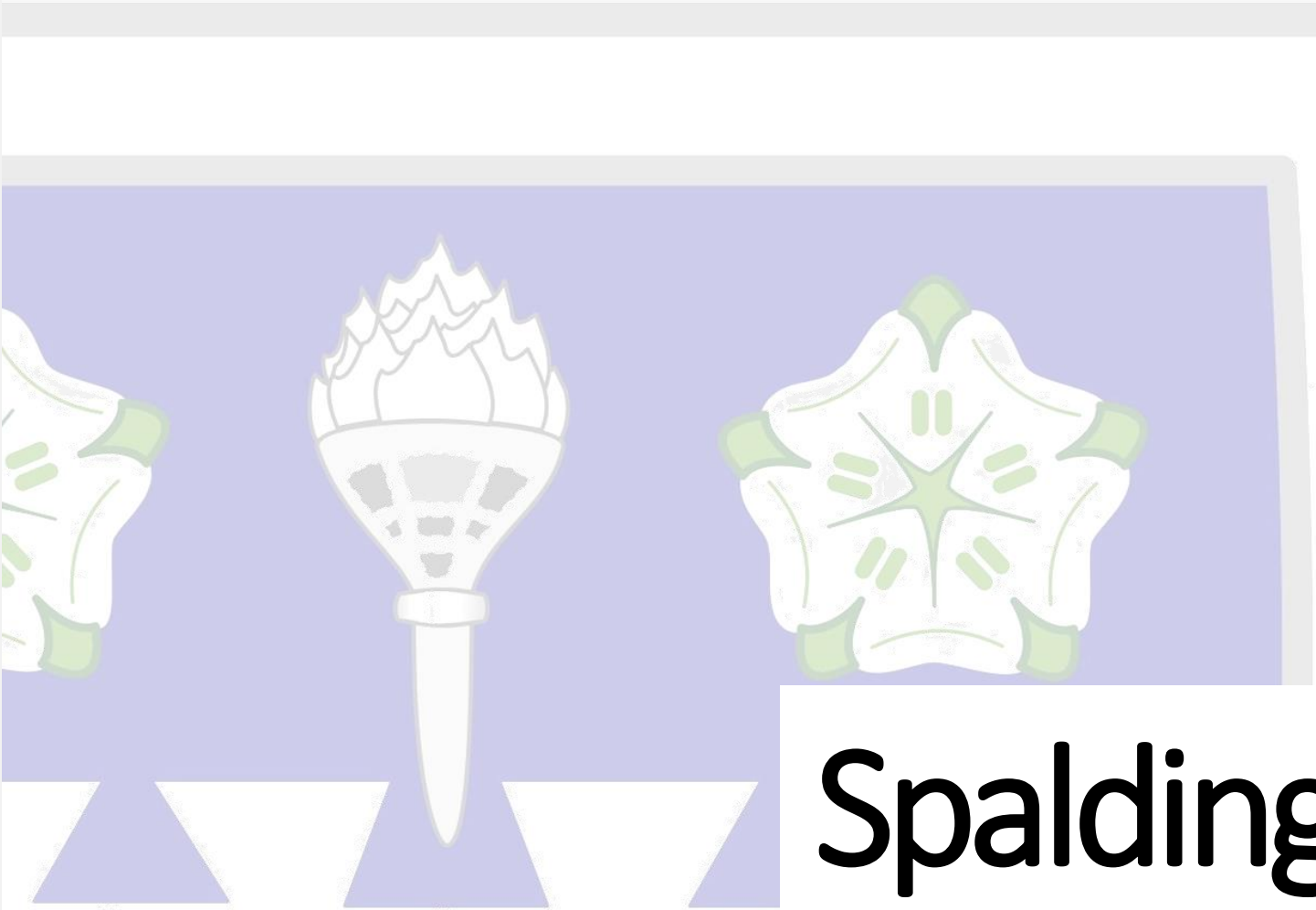
And that's it. This approach will be more effective than reading the material four times. You might even finish more quickly than you would have doing four re-reads.

Of course, it will feel harder than just re-reading. It's not as comfortable, and you might feel exhausted by the end. But you'll perform better in tests and exams if you make this part of your weekly study!

Consistency vs Intensity

- The T&L presentation ended with a graphic emphasising the importance of consistent habits rather than a model of not doing very much, a short of burst of intensity to catch up and then back to not doing very much.
- We concluded by setting a challenge to Year 10 students:

"What are the new, small habits that you're going to take in to GCSE study?"



Spalding High School

Seneca

Seneca

- This section simply highlighted to parents that all Year 10 students have been allocated a premium account for Seneca linked to their school email address.
- Seneca is an innovative online platform that provides interactive courses for homework and/or revision.
- It may be that teachers set students assignments to complete on Seneca, in which case they will appear under ‘Assignments’. Alternatively, students can use the website independently of teachers for revision purposes.