

# Effective Revision Techniques

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## SUMMARY KEYWORDS

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14:06

Thank you to everyone who's just joined, I think we'll get started there. So yeah, this is revision techniques I will pass over to John, thank you very much, John for leading the session.

14:17

It's my pleasure. Thanks very much for having me. And hi everyone and thanks very much for tuning in at 4pm on Friday that is impressive commitment, even on a holiday, although I guess it's coming towards the end of that. So I'm just going to share my screen, everyone me one moment I think it's still people popping in as well. So my background is as a teacher. So as a teacher for many years for eight years, I worked in lots of different schools all over deprived areas of England mostly in East London North London and areas of Hertfordshire with high levels of deprivation and free school meal students so I've had lots of students, and in from all the way up to a level, and including lots of GCSE and A level classes so I spent a lot of time, as you can imagine, focusing on trying to make sure they did the best in their exams that they possibly could, and I've learned quite a lot along the way about not only how revision can be most effective, but also how teaching can be most effective as well and a lot of my most recent job before I joined Trinity College, which is another college at the University of Cambridge, is I was essentially teaching teachers how to teach. And a lot of this stuff that I talked about, to the teachers is directly relevant to what I'm actually going to talk about to you guys today and what are the teaching techniques that I tried to emphasize, and also relied on as you can probably tell things through of memory and how memory works and how we remember information how we recall information. So, there's two quotes that I think are really important, going into going into this session, and thinking about how you revise effectively. One is that learning happens when people have to think hard and the second is that memory is the residue of thought. And that guy who said that Daniel Willingham is sort of the pioneer of this sort of area of of how people learn and like how, how to how to learn more and how to remember more. And he's sort of known as this. There's an area of science called cognitive science and it's about how your brain thinks and processes things, and he's sort of like the granddad grandfather of it if you like for him for, for teaching and for learning. So the objectives today are, we're going to talk a little bit about how memory works. So, what is your memory like how do we remember stuff, how does that work and how, how can you improve it maybe, which is obviously quite important when you're talking about religion. And we're also gonna look at some proven study skills and what I mean by proven is that the evidence has been, you know, they've done scientific experiments, they've seen it that it works, and that we know that that's helped students to learn more and remember better. So, and also why, why it works to which all comes back to, to the, to the first bullet point, understanding how memory works. And then I'm going to try and give you some. The most important thing you know

that I'm sure you guys won't have this is some practical skills to maximize the impact of your revision time, and, and also hopefully what this will do is give you much more confidence when you're revising, because you know that it makes a difference and you know that, like the science is backing this up, and you know it's going to help you with your exams going forward. And even if I can quite tell you this before your GCSEs, I hate that it's really helpful for your A levels. So, the first thing I'd like you to do is Haley's gonna very kindly share a link in the chat to a website called menti meter. And what I want you to do is you can either scan that QR code on your phone that's on the screen, or you can type in the link that's in the chat. And what it will do all I want to know at the moment is just like what do you think are good ways of revising like what is effective revision, what does that look like can you just put some words, you've got, you've got a choice I think of three words you can choose, just write in a word that comes to mind when you think effective revision. So what words do you think go alongside effective revision, I'd be really interested to see what you guys think, and then also can use it then to to inform what I talk a little bit more about in this session. So yeah, if you could, if you could start loading that website up and start putting in your words, that'd be really really helpful. I'm just going to stop sharing. So I can reshare and show you the stuff that you guys are coming up with so ignore that.

18:46

So you should now be able to see the screen with well, from The Inbetweeners on which says, what is effective version, and I'm hoping that your answers are coming in and they are brilliant right so this looks really good. So, loads of useful stuff in there that is fantastic actually covering weak areas, repetition, recall has come up, I love that it's the biggest one. So, it's good your teachers have been doing your jobs because the stuff that you're coming up with is excellent and I'm going to talk a lot more about some of the some of these things here. This is really good, really good, and active recall flashcards, repetition, yeah this is excellent. It's almost like you guys should be delivering this session you know everything, someone's even written spaced repetition. That's amazing. That's exactly what we won, and, and quality over quantity that's a great one too. Yeah, and not time wasting right and so, so much great stuff in there. And, really, really impressive. Okay, thanks very much. Okay, I'm going to stop there, but that is incredibly useful to know that you guys already know loads about this topic because that's really, really impressive actually. That's actually the best I've ever seen students respond to that question in terms of what you've come up with that. So, very well done. Okay, So going back to presentation. Okay. Could you guys just put your mics on mute, if that's all right, while I'm talking, it's just a bit of background noise. Everyone else can hear that too. Okay. Right, so thanks for that. Yeah, so the next thing I want you to just to think about and if you like, and you can put your thoughts in the chat if you want, but I just want to talk about some common misconceptions and to do with revision so the first one I want you to answer is, is true or false, revision only happens in year 11 or 13, or an exam yet. Right. Is that true or false so let's see in the chat. Okay, great loads of forces, fantastic, pretty much unanimous. Okay, great. Okay, really good so yeah I think you will you will agree that revision is a lifelong learning process, right, is a skill you'll need and to be honest it's not only a skill you'll need while you're at school, it's a skill you're going to need in academia if you carry on Beyond Past University and beyond, it's gonna you're gonna need it in life you're going to need it in work. So, revision and taking in information and learning is a lifelong skill. Absolutely 100% agree. And not only that, as someone pointed out, and in one of those words spaced spaced spaced repetition, it's about it's about splitting up the revision that you do over time, rather than cramming right so the second one I want you to think about is, which is true pausing, listening to music whilst revising can help some

people concentrate or most people or whatever you think I mean let's see here so you know we got some trues here right. Interesting. So lots of trues. Nobody's gone false on that one. It's like pretty unanimous so everyone reckons that listening to music and revising to Summit is true, okay so Ben's got bit more nuanced answer and a new sound so it could be false, right. Okay, great. So a little bit more, a little bit more controversial so here's what it is our good without lyrics Gabriella that's really interesting, right, right, really, really interesting so. Okay, so basically it's a common misconception that music helps you, it does not. Okay, I'm going to talk, I'm going to show you exactly why because I know you're thinking right okay well I don't believe he's not, I mean, it works for me. So what does this guy know what is this guy talking about right, I'll talk about in much in a bit more detail later on, but it does not help, not even Lo Fi will I'm afraid or classical Jonathan, but some music types are a little bit less bad than others. Like, for example, music without lyrics but I'm going to come back to that. But definitely, it's not a good thing. Okay. And I'll come back to it. Third thing is revision is not something you plan it just happens that true or false. Okay, again, you guys on the ball. Lots of forces, okay. Okay, good. So it's not just about doing the revision. It's about revising effectively right it's not just about doing it. It's about doing it effectively so I agree with you guys totally on that that is false, you absolutely can plan for it and in fact, it's so much more effective when you do do that. Okay and the last one is one technique for revision is highlighting, true or false.

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Very impressive again in case they unanimously false and good are true but only if you do it right, Polina You're brave. Very brave to go against the tide of forces there. Okay, so. Okay so, look, I think maybe this is one is a little bit of a trick one because it is so it's not helpful. It's a common misconception, the act of highlighting is actually not even revision, all that all that highlighting is doing is identifying key information for you to transfer into your revision, right. So, we know that students sometimes are not the most reliable when it comes to judging their own learning. And the most the most best thing you can do is self testing is the most effective antidote Okay, some strategies like rereading your notes, rereading your notes, is not helpful at all. Okay, using highlighters is not helpful at all, they're largely ineffective Okay, whereas quizzing does the trick. Okay, so, people learn and record information better. If they can connect it to other pieces of information and highlight is don't do this right they isolate single pieces of information. So, what we're looking for is things that connect. That's really helpful, highlighting doesn't do that because it is a single, single piece of information, and quite often students end up just highlighting whole chunks and passages of text, which can give like the appearance of working hard, but it's of little value. So, cramming is not good either. Cramming is inferior to distributed practice which is spreading revision out over time which links back to number one, when it comes to remembering. And I just want to, I just want to be really clear here that the most common revision technique that students use is actually also one of the most ineffective right which is reading notes, it seems like the most logical place to start reading notes, but the problem with this is it's a passive revision technique. Okay, it doesn't engage your brain. It's not an effective tactic for memorizing information, copying out your notes, word for word is also equally as ineffective right be, let's be honest. Be honest with yourself, how often do you find yourself copying out nodes, while your mind is thinking about something else like entirely you're just copying out, you're thinking about something else, your miles were thinking about dinner, and that's because it's not active, it's passive right active revision is a far more efficient form of studying and active revision is slower, but it provides three main benefits. Okay. One, it makes your brain work, which activates the memory centers

of your brain and makes you more likely to form stronger memories, the information you're trying to take in to it makes you reassess the information you think you know, and forces you to work towards relearning it. And three, frankly, it's far more interesting than passive revision because you're actually involved in the process. And I just seen a questionnaire from Polina, is it, it's so it is a task that comes before vision that could be helpful. Yeah exactly that. So basically it's like identifying it could be useful highlighting in identifying what you want to revise, and I'm going to show you what I mean by the actual act of revising okay. And Miriam, I hope you're feeling okay after the COVID vaccine world I'm forgetting it, I think that's great. And yeah, make sure you're feeling all right, but it's very brave of you to join us after getting the vaccine. Okay, so that's what I'm trying to actually get across to you plenary, right, the thing to definitely avoid is what the guy on the right is doing right. Sometimes, I've seen this before where students just like highlight entire.

27:14

Why Why would, why would that be helpful, you know, why, why would that be helpful. Why would I say everything be helpful, and even the gardener last who thinks he's highlighting well he's still highlighting huge chunks of text that you know what, what are you gaining from, you really, you really have to think about these things. So okay, so they did this study right this guy called Dan Loski, and a bunch of his science friends, science, scientist friends stay, they looked at 10 strategies, the most common 10 strategies that students were using to revise, and you can see there's lots of different things that and there's also lots of different words that you might be thinking what on earth is that, and that is fair enough. Okay. And actually, I wouldn't worry too much about that. But what I really do want to highlight is that some of these 11 things are much, much more effective than some of the others, and in fact some of them are basically not helpful at all, as we've already discussed, and like highlighting right and rereading your notes, the things that are the most effective, are those two at the top there so this is what their research outcomes were is that practice testing and distributed practice which is which is long term revising were really really helpful and they were the students who were doing much better than than the other students when they use those strategies. Now, some of these other strategies that are in moderate and low in the yellow and orange sections, it's not necessarily that they're unhelpful, they're just not as helpful, they're just not as good as the third the top, the two green ones, and you can see there that the things that are actually unhelpful are rereading and highlighting or underlining, because it's not the actually actively engaging your brain. Now, the key thing to note here, because I know there's lots of again like I said lots of words, I'll explain some of them but lots of the words there might be a bit confusing. But the thing to note is that there's a strong scientific consensus that regular and distributed practice have the greatest impact, and should definitely be part of any revision strategy. So, so, so all of this right comes, comes back to how your brain works right what how do you get your brain actively engaged. How do you do this practice testing how do you distribute practice effectively. And it basically all comes down to memory, and how your memory works okay. So I'm going to do a little test with you guys right now. Okay. And I'm going to set a timer and basically what I want you to do is, is to try and remember something. Okay, so you've got one minute to memorize these numbers. Okay, So I'm going to give you 30 seconds, you're not allowed to write them down, of course, but you can use whatever strategy you want to try and remember these numbers. You've got one minute, off you go. In fact, I'm actually, I'm gonna change my mind you can write them down, but obviously you can't use what you've written down to try and remember it when we, when we come to remembering it right. So however you want. How would you try and remember all those digits there.

30:17

You got about 30 seconds. Okay, right now. If you've written that down, fair enough. I want you to follow that bit of paper or turn it over, and I want you to try and write out as much as you can possibly remember of those of all those digits, okay. And then what I'd really like you to do to try and remember, as much as you can have those digits that I have on the screen. And what I want you to do is to Yeah, is to tell me how many digits, you've got, you've got right or how far you get some. Wow, this is pretty good like Ben reckons he got the whole thing so that's very impressive again. I don't think I've ever seen anyone who's got more, so there's actually it's actually a pretty brilliant attempt by lots of the CIO and obviously I don't know how you did it, or what you went about doing but most of those are pretty impressive actually. So, I think what a lot of you guys did is you yeah you've got you remembered like the first at least the first say six digits right and that was okay, but pretty pretty impressive. And Ben made a song in his head right so that's interesting. So Ben, I'm going to come back to that, because I'm very interested in what in what you said there. Okay, so they're the digits there. And I've also underneath, I've put some other information right. So, thank you. Well, that's really interesting, too, so I'm gonna head, three numbers at a time. I like I like this song and head thing. Okay, but, but, I think, I think we'd all agree, right, that that was a bit of a struggle, right, it was It wasn't easy, whereas, the cat is on the mat. If I gave you a minute to remember that. I'm pretty sure that most of you guys would remember that it said the cat is on the map, right, nice and easy. So let's try something else. Okay, so let's try again, and let's say 30 seconds this time a little bit less time. Again, no cheating okay, no cheating because you're not allowed to look at it when you come to remember so the important bit is remembering. Remember those letters, they're

33:01

just 30 seconds is done, super impressed by the way, with your responses, Because then you guys have really remembered a lot of those lessons. Okay, so they're gone. Now again. Can you remember that right. So, again, not as good see straight in with Miriam, right, and again yeah pretty good right. And again, Ben is really, really strong, he's got strong techniques but lots of noise you guys right are doing pretty good here right you've got at least the first three blocks of text. Okay, great. Okay so, Very impressive. Okay, so this time I'm going to give you 30 seconds and I want you to remember these letters. So 30 seconds.

34:26

Okay. Do you remember what was that. Right. Excellent, excellent. So, pretty much everyone here with everyone is rattling out all of them right. Yeah, really really really good. Right, okay, really good. So,

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two sets of letters right they were both, they were both five lots of three letters right. So, quite clearly, from what I can see in the chat here, much easier to remember right, so what the hell is going on there. They're just letters right. But the difference, right, the difference between the two is that for the second series of lessons. We already had what we call schema to make sense of the information in order to memorize, right. So we had these things called schema which means that we could already link it to something, and that and that's why it was so much easier, right, than the first nine letters, and these schema, are the most important thing that we need to discuss so you can imagine, based on these



examples right. Think about what you experienced in trying to remember this information, and you can imagine that the links we can make to revision here are going to be really important because you all manage to remember the second law, easily. So, what we need to talk about now is how your brain works okay so this is the bit like before I give you the strategies and the help for that use this stuff, but this is really important so this is basically what we're relying on for that for all of this revision right for the most effective revision we're going to rely on on these strategies, okay. So basically, at all times in your life, you're bombarded with huge amounts of information all the time right through our senses through our site through our sound, or smell etc right through, and, and what can you know what can you see right now, what can you feel right now what can you smell right now, so much of that that's all information that your, your brain is processing right, that's, that's happening right now. And most of this information is basically just ignored, we don't pay attention to it, and therefore, we also don't remember it right, because we ignore the information, and we don't pay attention to it, we don't remember it. That makes sense, doesn't it. So the next thing is when we do pay attention right to our sensory information we gives us that we give ourselves the chance of learning something. So, a key thing to note here is that to learn, you have to pay attention. Right. And even when we do pay attention to the information, and this comes back to, maybe, how well some of you guys did, and with all those with remembering those, those numbers and those blocks of text I just but is that actually the thing is is that most of this, most of that will be forgotten, unless we do something with it right. So, Even when we do pay attention to information, most of it will be forgotten, unless we do something with it. So, immediately after we're exposed to new information, it's held and processed in something called our working memory, okay, and our working memory handles a range of tasks from things like verbal reasoning and reading to problem solving and comprehension, it's got quite a small capacity, and that means the information can be forgotten. If it's not transferred to our long term memory. Okay, and I'm going to talk a little bit about your short term memory in more detail later on but the point here is that in order to learn stuff, you need to pay attention right well you haven't even got a chance. It doesn't matter if you're going to forget it later, but to even take it in in the first place, you need to be paying attention right. Okay, so we've got our long term memory now. So to move things into our long term memory. We have to make the original information meaningful. So we have to make the original information means something. And that's why your teachers teach lessons to help you understand what you're trying to learn right then, they often check whether it's gone in, because rehearsing it and retrieving the information is a good way of ensuring that you don't forget, making connections between the information in your working memory, and your long term memory is what allows you to learn new things, and your long term memory. The good news is right, your long term memory has almost infinite capacity. It has a huge capacity right almost unlimited data in, and it allows us to remember things for years and years and stores, all kinds of memories from a task you completed a few hours ago to an event from a decade ago, right. So, don't forget stuff, and that's to not forget stuff, it needs to go into the long term and so you need to practice the same material, over and over a topic may need to be reviewed and revised up to six times, in different ways so that it transfers to your long term memory. But learning that learning doesn't just go one way, because you need to be able to remember as well right so you need to be able to draw, you need to be able to draw your working memory to your long term memory, but you also need to be able to bring that back for when you need it so when you're, when you're actually in the moment you need to be able to bring it back from your long term memory so that you can use it right now. One of the things, and one of the things that I'm going to talk about today is retrieval practice and that's a big thing, hopefully it's a big thing going on in your schools at the moment and like lots of the

times you go into lessons when teachers should have a star on the board that is like, what did you learn last week, what did you learn a month ago, what do you learn a year ago, something along those lines and I don't know what your schools, and what your teachers if they're doing that or not, but that's certainly what they should be doing, they should be doing something called retrieval practice where we focus on getting information out. So through the act of retrieval, or calling information to mind our memory for that information is strengthened and forgetting is less likely to occur. Now the bad news is, and the good news if you like, is that the harder it is to retrieve something, then, the longer it stays in the long term memory. So, the harder it is to actually to get to go to think about what it is you're trying to think of the more likely it is that you hold it for longer in the future. So it's a really powerful tool for improving learning. Now, that's, that's like how your brain works okay so that's how memory works, and what I talked about briefly in the working memory is that it had a really small capacity right your working memory which is like right now, how much can you learn right now, so you've got a really small capacity right. And there's a great book by George Miller, which is called seven plus or minus two, right, and it's a well known, oh sorry, it's an article actually written by the late psychologists, and George Miller, and in this paper, he sets out to measure the information that can be held in your short term memory so how much can you learn, right, right now, in the short term, right, and he used experimental findings from loads of different studies to support his idea that on average, short term memory can hold seven plus or minus two because it does depend on by the past, a little bit, like you saw. Who was it who was, was, was managed to remember the whole lot of straight away I think it was, was it well I think it was well, and so some people can remember, nine and some people can remember sort of five so seven plus or minus two five to nine right chunks or bits of information, so you can remember five to nine chunks or bits of information. Okay, any more than that. And your brain overloads, and it can't cope, and there's very, it's very unlikely going to be able to learn. Okay, so what you're, what learning looks like is if your long term memory is like this with lots of information that's poorly organized, and it's very chaotic, you're very unlikely to be able to draw on that information when you need it, you're working memory, and therefore you haven't learned it thoroughly. Whereas what you want your long term memory to look like is a like a lovely organized library like that, where all of the bits of information that are linked are held together, and it's lots of links and lots of organization and it's quicker to get back to your to your working memory to the memory that you need it for.

42:17

Okay. So, if you remember nothing else from today. Remember that testing yourself is the most important aspect of your revision testing yourself is the most important aspect of your revision. Why, because it's scientifically proven that devoting a certain amount of study time to testing yourself cements information into your long term memory, and this is known as the testing effect. Make sure to use revision techniques, which continuously continually test your knowledge, answering practice questions and asking a friend to test you is also a good way. And I'm going to talk about some other strategies that you can do at home on your own. Okay. But you can see there that testing effect is so important testing yourself is so important, because it does all of those things on the screen then improves your memory right, improve the amount of information that goes into long term memory which is the whole point of learning right makes you more confident reduce examiners, Because you don't need to stress because you know that it's all organized in your long term memory. And, and improves your memory, even during stressful situations like exams, for example, and helps you identify what you do know and what you don't know which is what we sometimes refer to as metacognition, learning

about learning, learning about what you do and don't know that's that's really important too. Okay, so this is like this, this other guy Sweller, he came up with a theory called Cognitive Load Theory, and as you can see, it's directly linked to what we were just talking about with, with the working memory right this is actually his theory. So just to summarize, right, small amounts of long short term information and processing the working memory. And, as we said we said seven chunks but here we've got four but it's five to nine according to the research, large amounts of information are stored, semi permanently in the long term memory and your working memory your, your, the memory that we think of at any given moment can become overloaded and therefore you won't understand what's going on because your brain just can't cope with anymore, but you can prevent it, because we can, we can minimize how much extra stuff is going on okay that needs to be recalled, which frees up more information because the more you transfer to long term memory. The more, the more free freed up you are in your working memory, to learn, to learn new stuff, okay. So, Jaden, good question. Well if you're struggling with the topics you're in can incapable of even doing a test on something specific. So, okay, I'm going to talk about I'm going to talk about some strategies there Jaden because when you say topic. You don't mean chunk right remember I talked about these chunks of information, so I'm going to I'm going to try and hopefully help you with, with that, okay. So, but I'll come back to that. That's all right. So, how can it help us right. How can all this stuff help us when we're revising. So, I think clearly. If your working memory is limited. It will be forgotten, if it's not remembered right, so for example, I think, if you, if you think about what those, those numbers, We were talking about earlier, and even those lessons that you were really good at remembering is starting, they're probably already gone right, because it's in your working memory, it wasn't remembered, it's been forgotten, right, whereas if we can get it into the long term memory, it stays there, when you keep recalling it so practicing over time. And what we can do with this stuff, what why it's helpful to know this. Cognitive Load Theory and the science behind it is because it's directly relevant to revising in the best way. So practice and repetition, chunking, which I'm going to talk about more, and things like looking at worked examples right model exam responses and completed formulas before completing the task is really helpful like looking at a mostly finished answer and then you're filling in the gaps, or the same thing with science or maths where you've got mostly completed formulas and you fill in the gaps can be really helpful to help that and recalling process. And, like, like we were talking about with the music, too much visual and auditory stimulus can overload it's too much information is it goes beyond your seven chunks right your seven amount your seven chunks that you can remember. And as we, as we saw in the beginning cramming is not effective, it's important that we practice over time. So,

46:30

generally, how this looks, and I'm still not going to get into strategies yet but generally how this, how this looks, is you use class notes or your textbooks or whatever you've got right, and you make a list of important informational content, you need to know, across the subjects. You close your book and you test yourself, you can do this in lots of ways where I'm going to talk about how you can test yourself, you can use things like quizzes flashcards or past exam papers. Do not use your notes. Okay. That said, the notes aren't helpful because that's just rereading stuff, you have to create memory retrieval practice strategies, the notes aren't helpful in and of themselves however they are useful to transfer onto the revision techniques. So you remote you retrieve as much as you can and then check your answers. Okay. And as we said important to know what you know and what you don't know. And then we can use the answers to inform the next stage of the revision and focus on the areas that you



struggled to recall from memory. So that all sounds complicated, right, and so now I'm going to try and give you some actual strategies. So, going to what Jaden said right, so I would suggest to Jaden if you're, if you're struggling with a topic a whole topic and that is in your way and you're incapable of doing a test on that right, then you need to be more almost more specific right you need to you need to break it down. Okay, we've got to remember that we can only, we only have this five to nine different items that we can cope with. So that's what we do, we chunk stuff right we break it down into the amount of information that we can we can cope with. Okay, so chunking as the average person can only hold seven items right and grouping these items together into chunks can increase capacity. So this is generally used for remembering numbers, I think about what was going on there when you're talking to me about how you remember the numbers right you group them into two or three chunks right and you sum them for whatever reason, right, but that was really a strategy because you didn't. You did chunking and action there, and it can be applied to other listings in various subjects. So a good way of me showing you what chunking is doing is, I'm actually breaking down chunking into the separate chunks so what I'm doing right now is I'm chunking chunking right, so I've chunked chunking into practice, associations, acronyms and separate revision okay so that so that that's chunking chunking I broken down chunking into its different chunks right. And now, what do all those things mean so we talked about recall and that's, I'm going to show you a strategy about that in a minute, and associations are quite important. So, one, one thing that one thing that can be really helpful is having an image so when you're doing when you're writing down and strategies your revision strategies like mind maps or flashcards or whatever it is or testing, having so if you're finding something really difficult to remember. Very often, using an image or a symbol alongside what you're trying to remember can be really helpful. And that's called something called Geo coding which is when you have text and images together. And so that can be really helpful. Although, be careful that you don't want to overcomplicate things right you want to just keep it simple. The simpler the better. Less is more. And, and what I've done here is I've created an acronym right, which says P A s for pass, of course, although pass felt a little bit dodgy Li, but you probably you may you may well have seen acronyms, from your teachers, things like petal right which is a new acronym adapted for the new GCSE because they're stressing the use of subject specific vocabulary. Within answers, and it's important for high marks so petal reminds you to include key terminology right it structures people's paragraphs to include the following which is point evidence terminology, analysis, and link right. So, I'm sure, I'm pretty sure if you studied English at GCSE, you probably would have seen or any humanities subject, you would have seen that, that that acronym petal right. And you can also use things like new monex which are word games which can act as memory aids and which allow personalization and creativity. So, the one I always remember from school is to remember that you remember those things that you might have got talked about at one point which is Stallard sites and stag mites, right, and the way that I always remembered that is because static sites has a CNN, because they come down from the ceiling and stag. Stag stag with G mites, go up from the ground, because it has the G rise I see the ceiling, G for ground, and you probably know you know the colors of the rainbow, which is Richard of your gave battle in vain. So, to remember red orange yellow green blue indigo and violet or the seven characteristics of living organisms which is remembered as Mr Graefe movement reproduction growth respiration, irritability, excretion and feeding, but you can devise many more of these to aid your personalized recall of items in your subject and I can see that some of you guys were really good at that. Earlier on, and the other thing that I need to talk about here is okay so when you study right when you revise is so, so much better to revise multiple subjects in a single day, than to cram in a whole subject into a day and then do

a whole nother eight hours or whatever and difference over the next day. It's so much better to mix and match between your subjects, and it's called interleaving to make links, because you're much more likely to make links if you separate out your revision, over time, as we've seen, and what have I got here so if you organize your notes into chunks with each chunk having his own question as a subtitle, and then if you try to recall the information based on the questions as hubs subheading. Would that work.

52:08

Yeah so that so do that's exactly what I mean. So the notes aren't useful in and of themselves but when you you when you put them into revision strategies, like some of these things. We're going to talk about, and the putting them into chunks is exactly what you should do right we did say and sometimes exactly that right so, and I'll talk about this now with some actual strategies right, But But exactly that. So, the second memory strategy after chunking, which is, which is hit the nail on the head and how to go about and how to go about doing that from your, from your sort of full notes if you like, you can even do it with the notes which are, which I'll talk to talk a bit more about later, but organizations really important okay so the best way to channel material to long term memory is to organize it into meaningful associations so link it to existing information and topics and create vivid personal examples, which can act as mental cues for recalling information in the future. Thus, the new items are put into context. Okay, so if you learn a new formula, or a verb or a rule, try to put it into practice immediately with a relevant example, visual associations with text, things like mind maps that have gotten there and help some people to picture information and to remember the connections between key details. So digital methods okay good question Miriam, again I'm going to I'm going to relate refer to that in a minute too. So, I think, with a show I'm going to answer now. With regards to digital methods of organizing your notes because there are some really good, there are some really good things on the internet and really good programs and stuff you can use. So I would basically say, try both and see what see what works for you, but I think there's something about doing it yourself from scratch, and writing and thinking about the connections and not having it not having it done by a program but you deciding what's important and what the important information is there's something important about that. So if you are going to, if you are going to do it digitally, make sure that you're the one inputting the information and you're not just we get you're not just using something that's been created by someone else. But I don't think, I don't think it's a bad thing to do, by any means and there's some really good things you can do as well. So, in this case right, you've got a topic and Inspector Calls which is a big, you know one of your big English texts you studied last year. And so what we're going to break this down to things like the things, the writers mentions the characters right. What are they symbolic of and then key evidence examples in quotes. So you can see there for the character Arthur Berlin right, it's broken down into his key quotes, and some of the key things that links that alongside what they're symbolical, and for the geography underneath, you've got the science of global warming and you can see that it's split into co2 You've got the Industrial Revolution, and so your greenhouse gases and you've got the greenhouse effect right. And from there, they've made all these links. Now, that's why my maps are affected because they helped me, the links. So, so that's a really good second strategy. Now, I'm going to come now to my to my favorite and most, the most important strategy, I think, and the best one. I think by far. But before that, I want to talk to you about. We talked about didn't we did I just talk to you a minute ago about how you've probably already forgotten right, that stuff that we, the the numbers

and the letters that we were testing our memory on earlier, is probably already gone right. And that's because, and

55:29

reputation, right. So studies actually indicated 60% 66% of material that is, is forgotten within seven days, if it's not reviewed or cited again by the student. And that goes up to 88% is gone after six weeks right, so why learn stuff. If it's going to be gone within a week. Right. And definitely gone within the half term, right. So, don't make your life harder right build in brief daily and weekly review of material covered. It will save you from having to relearn the material from scratch right, it is no good doing it and never visiting again, like you is going to go for sure your brain will not deal, your brain is not being committed to long term memory. If you do if you haven't repeated it revisit it. So, and before we finish, again, so the second most important thing today after testing yourself is repetition is how you create long term memories by testing and retesting yourself, you will continually identify areas that you need to improve on, focus on those areas, and repeat your revision for those tricky topics, this time using different strategies. Okay, so one thing I would say is that starting early for exams and setting aside a little bit of time every day, five hours you know I said before, right about, and making sure you split the subjects up. Well the same thing is true over the revision as a whole, five hours, spread over two weeks is way better than the same five hours, all at once. Okay, that's phase practice and action as one of the most effective revision strategies regularly reviewing information, interleaving of knowledge and skills in the curriculum. Okay, so what you can see on my diagram here, right, is like, look, this, they learn it. And a day later, what you've learned is gone, you've only you've only remembered 80% of it. And if you don't revisit that information again you can see that within three days, that information within three days that information has gone down to 60%, so you've only retained 60% Of the three days, right, so that's not very long and within a week, you can imagine that's gone down to very a very, very poor level right well you're down to about 30% wasn't 34% Because 66% has gone within a week. Whereas if you review on day one, you can see that in two days time, you still know 80% of it and then if you review it again on day three, you're going back up to 100% and it takes even longer to get right down to the 80% and so, you keep reviewing your material and it gets committed to long term memory. Okay, whereas you will forget stuff. If you don't review. That's quite clear, isn't it from, from, from that curve right, so what we're trying to do is to interrupt the forgetting curve, the way that we do that is we need to learn it in greater depth, we need to Overland it we need to keep revisiting it and that's what a guy called Matt Bromley who's an education, writer and Advisor with 20 years experience in teaching and leadership, including as a secondary school teacher, and did his research in, right. So, we need to keep revisiting stuff, we need to interrupt the forgetting curve we need to make sure that we don't get don't need to get down to that point where it basically was pointless learning it in the first place, right. Okay, so I'm going to now show you a video, and it's about flashcards which are, you may have already guessed from what I said before, but they are my favorite topic. Okay, so, flashcards are amazing. If you use them correctly. Now bear with me just give me a moment or so I'm just going to load up the video for you guys.

59:11

Okay, ready. I'm going to share my screen, and this time I'm going to hopefully you can see the video, that's on the screen now, I'm going to play it for you guys.

59:28

We'd like to introduce you to x term, can I remember what colonization is, oh sorry, I just like to use a system called the lightness system, because we think it's a really good way to help your children learn all the facts they need to master their new topic, this half term. I'd like to show you how it works where the topic that we've just done in year four. So this was our knowledge organiser in year four the bedding kingdom, and we had the timeline, and the vocabulary to learn and then some maps as well. And it's quite a lot so the first thing to do is to break it down, and we're just going to learn that vocabulary. I made myself these flashcards, which match up with a vocabulary so the first one is animism which is my first term, And then I just copy down what the definition of animism is the belief that non human objects have spirits or souls, and I try and learn all of these, what I need to do every day is quiz myself on them. And I quiz myself using this system the lightener system. Imagine it's Monday, I'm going to read animism and see if I can say the definition. Animism is the belief that non human animals have spirits or souls, give it a quick check yes I've got that one correct, so I can move it into the Tuesday and Thursday box colonization is my next term, can I remember what colonization is. I can't remember what it is. Let me check. When invaders, take over a country by force and live among the people, of course, I got it wrong. So I'm going to put it in the everyday box which means that I will practice it more regularly cowrie shells, I know what cowrie shells are those little shells that European traders used as currency. I'll just check and write a seashell which Europeans used as a kind of money to trade with African leaders that can go into Tuesday and Thursday got that one right. And I'll keep doing that until all of my cards. Already the different boxes. I get. That's Monday on Tuesday, I need to quiz myself on the chords that I got wrong, which say every day. And I also need to quiz myself on the Tuesday and Thursday box because it's Tuesday. So I'll take out the every day,

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chords, and this way I'm starting with the terms that I'm weakest on and getting more practice on the terms that I'm weakest on colonization, I remember now, colonization was when invaders went into a country took over, but lived amongst the population. When invaders take over a country by force, and live among the people. Yep, that can go into the Tuesday box, we always just move one to the right, that goes into the Tuesday box now I've got it correct. Civil War. I still can't remember what a Civil War was a war between people that live within the same country, I got it wrong. So we'll go back into that everyday box. I know what a moat is, and I know what an over is I've tested myself on those now because it's Tuesday. I also need to do the Tuesday and Thursday box. So I'll take out these. But if I get them right, again on Tuesday, I can put them in the Friday box they can move one more across, and over, I know one over is that easy, and over, it was the king of the banning kingdom from, from about 1100 to about 1897. A king or cheap, that can go into the Friday box. I've got that right twice now. I'm only going to quiz myself on Friday about the Oba. If I get one wrong though. It goes all the way back to every day, so that I can quiz myself more regularly. If you do that for a week, then we're pretty confident that your child will have a really good understanding and memory and be able to retrieve and remember all of these key terms, and that's going to really help them with the understanding of that topic, and it's going to help them with the writing is going to help them to talk enthusiastically about it and build more knowledge on top of what they've already got make their brains a bit stickier, for even more facts about it, so that they become real experts in their topics and we'll look forward to helping them to do that.

1:04:42

Oh, so I look at that come up to that with them some frogs on it, and I hope that was, uh, I hope that you got the message with the lightning system is is fantastic again, and I'm just mindful that I've been talking for a little while now so could we just what we're going to do is we'll take a five minute break so you can just go to the loo, grab a drink or whatever, and, and we'll come back at, should we say 457 right just time 52 So we'll come back at 457 and go and grab a drink, go to the loo. And if you're really really keen, have a go at putting the lightener system in action with a topic that you've been looking at recently, but we're going to look at some strategies some more strategies when you get back 457 Please.

1:10:34

Okay everyone, hope you're all back from a little break. Hey, well, good to have you back. Okay great, so that that method the lightener method right I think, I think one of the things is that there's a big problem with flashcards that lots of students say they use it, but not very many students use it effectively, okay. And if you use this strategy I promise you, you will be amazed by how much more stays stays in your memory, in the long term, I use this whenever I need to break something down into the chunks right, and to really remember something, I use the flat this lightener flashcard method is just brilliant. And how do I get rid of that. Okay, so some of the, so the flashcards right there, they're an easily reviewable format you can then use the cards to test your memory and find out which topics you need to revise more thoroughly. Okay. And one thing I would like to say, as we're just about to go into September, and you might think right what it's only the start of year 12 Or it's you know it's only the start of the school year, that September is actually the ideal time to start creating and using flashcards, little and often right. If you wait until the exam season, it becomes a huge task workload wise and can't use it for space for retrieval practice right, so just keep it simple. Okay, remember that flashcards, don't need to be flashy right we like keeping them simple. So short answer synced information, ensure you have the key knowledge on the cards, and so on the first side you have your question or trigger, and then on the second side you have what you're trying to remember. Okay. And remember specific increasing intervals. So you may have noticed, and in that video right, that he he reviewed them on Monday and then Tuesday and Thursday and then he had Friday right because he was doing it for the school week. Now what you do is once you've got all the cards into Friday where you keep getting them right, right, when every Friday, you then can increase the space when you go back to them so it might you might then go to one day every three days then it will every week or you then you can move to a week, a month every six months, right, and you get to a point where, obviously, the exam comes along. Now, I want to go back to that excellent question, and earlier which was about digital right, our digital strategy is good, which is a really good question. Now for flash cars in particular, there happens to be an amazing website or app, it's an app as well called Quizlet, that I strongly recommend It's particularly good for languages so if you study languages. I've used Quizlet loads when teaching me used to teach French, as well as I taught maths and French. But I, when I, When I taught French, I use Quizlet a lot because it was so good for vocabulary for a specific theme, or even a specific, you know something within a theme as someone else pointed out, and I got my students that was like the only homework, I wanted them to do, was retrieval practice on vocabulary because we could cover everything else in class, but they came in with like, amazing vocabulary knowledge because that was what they were doing through their homework right, which in a sense I think I was letting them get away with it because it was so useful anyway, and that they should have been doing it themselves. Okay and there's just an



example of someone who does it, who did it a little bit less often, so they did every day, every other day, once a week and then every two weeks and then they reviewed it before the test. As a final thing right. So, and good example here. Let's just, just to show you a clear example of that being used. Here's my best quotations from the play, so to make some flashcards that we're looking particularly at ambition and Macbeth on learning the best changing relationship, you can see here that they've done ambition and on the back goes without the illness that attends it which was Lady Macbeth to herself and then voting ambition, which is Macbeth himself, and you decide right you write the relic, you look through the quotes that you're given by your teacher, and you can make use of that the relevant ones on the back, and then you can amaze your teacher. Oh, what have I done, what have I done with screensharing.

1:14:33

I think you've got it on the present as be rather than, right, okay. Yeah, that might happen. I'll go back and try. There's always something.

1:14:42

Yeah, as always, thanks for letting me know Jaden, appreciate that. And yeah, so for math and science, they do what I say definitely for sciences, there's plenty of vocab right so what I, what I would use it for in maths right is like say for example, and you were you knew that it was like a certain method so solving simultaneous equations right. So, I'm sure you all did solving sometimes equations but it's on foundation and higher tier right. So, with intense equations, there's like, there's like a bunch of steps you follow right, so one is like you make sure that you have the variables you have equal variables of either x or y. The second step is then either side, same size subtract or different signs you add together the equations and then you solve one equation and then you put the x, but you put the x all the way but the variable that you do know back into the original equation to find the other unknown right, so you might what you might do for math is put down what are the steps you know what the four steps for solving simultaneous equations, and although you won't actually be putting the numbers in, you'll still be, you'll still be going over the methodology that you need to do to solve it right. And there's also things like you know there's loads of like the quadratic formula, and whatever else right all the equations and formulas that you need to learn, you still need to learn those right. Although this year was I know was a little bit different because you didn't do the exams, but when you do your A Levels next year you definitely will have to know a lot of this stuff that you're doing STEM subjects, need to know a lot of formula. So, they are still very helpful for STEM subjects too. Okay, so let me try that again. Okay. Haley is it now Scylla is it now. Okay.

1:16:32

It was okay but it's now back on presented to you. So yeah, I can see presented to you right now.

1:16:41

That's weird. Okay, so that this guy's doing what's happening here. Right. And now that it's all good I think. Oh wait, no, no, it's back on presented to me I'm not sure what's happening. Okay, tell me why that's happening. I'm just going to maybe close it and restart it. If not you can see my notes, it's not the end of the world. Oh, I know what it is. How is it now. Is it full screen. It is yeah, now I knew what it was, okay, I think. Okay, so, um, what I thought actually but I'm a bit conscious, to be honest guys that is

Friday, you know, Friday afternoon. So, what I was going to do is to get you to do a task to put one of the strategies in place, either to practice chunking or to practice doing a mind map, or to practice using the lightener flashcard system, but I think what I'll do is, I will follow up in an email and just give you give you give you a task or you're more than welcome to go and do it, but you can see for example like here's a revision page for a booklet which is about waves in physics, and you can see there's lots of information there, right, And just by reading that, or highlighting that you're not going to put that into your long term memory by transferring that to somewhere where you can make links, or where you can wait and where you can do retrieval practice that you're going to get into a long term memory right space, space practice and retrieval practice, so I think I'll leave that just because it's Friday afternoon and I don't, I don't want to I want to get you guys to to enjoy your evenings. And so, and the other thing I talked about right at the beginning right if you remember, was about your phones, wasn't it, right. So, there's something called the Split attention effect right, and you can actually see there from the Sunday Times article from a while ago now, it doesn't work okay and a further study in 2010 music did not improve learning in the study, someone else talking. Music enjoyed by students and music disliked by students, all had a similarly distracting effect so it didn't matter even if you liked the music, having to receive information. Alternatively from two or more sources can place a burden on your working memory right because your focus is being spread too thinly, you can, if you if you go back to that to what we said the beginning, you can only remember five to nine piece of information at any one time, and that your working memory is what is working to do that, even as we even as even at that time, right. So if you then place another source of information on it, like, sound like audio, it just spreads YouTube then switching between the different sources, leads you to remembering less content, because your energy and resources, spend trying to process several things at the same time. So, the research shows that students who learn in a split source format, achieve lower learning outcomes than the same peers who learned. Without that, the best condition. The same study found that the best condition for study and the learning of new information was, I'm afraid if you're into your music silence, silence was actually, I'm afraid the most effective right so these students who revised in silence, just did better than the students than the similar students who had music on. Okay, so they did this huge study with them, with those who provide music, and those who didn't say the research was done, Rachel, by Pr ham and Vizard, I can put put that in the chat in a minute, if you'd like. In fact, I'll put it in now, just so you can see it. I love that you want the research that's great. You should be questioning these things, that's a, I think Rachel is going to be a future superstar because she's questioning sources which is a really good academic strategy, and I don't know the answer on white noise and afraid. So that's a really good question to ask and Sarah and Polina, that's something you'd have to probably look up yourself. But the study. The study that I'm referring to is 2007 study by by parent lizard. So feel free to look that up, or you can look up that Sunday Times article, there's low anyway basically it's unanimous you know there's lots of research suggesting that it's not effective.

1:21:33

Okay, so I'm now going to move away from strategies that we've looked at. We've looked at some really important strategies there with the mind maps with the lighting system and with chunking. They are the best strategies, you know, that are simple, they're simple and highly effective, and that's what you want right you want, not very time intensive, but lots of output from it. So the best way of studying then in terms of timing right so we're now talking about sort of the dip not not actually the strategies, but how to go about doing it. Okay, so the best, the best one I've, the best way I find I use it for work right, is that I

use the Pomodoro method. Okay, so it's working in short, 25 minute bursts with a five minute break. Okay, so, and the reason it's so effective is because if you struggle to stay on task, while working particularly remote working or working at home, and the Pomodoro Technique can be an absolute game changer right no email, no, no quick, and instagram or snapchat messages, no phone calls you set on one task and you stay focused on it until your time is up. Okay. And because you know you've got 25 minutes increases that sense of urgency, so when the time with the timer counting down tasks become like a competitive race, And this technique also provides data about your work habits which boosts efficiency over time, like for example, how long does it actually take you to, to condense your notes into some flashcards or into an effective revision strategy right. And also, most of us struggle with perfectionism, from time to time like we want our flashcard to be absolutely perfect. We want our mind map to be all colorful and lovely and beautiful, right, and what with the timer counting down, it just gives you no room for that endless tweaking, you make much better use your time by working within the parameters that you've set and then moving on, right. So, and also when working remotely, it can be actually really easy to forget to take a break, and then it can be tough, and on the other hand it can sort of be tempting to take loads of breaks. So using this Pomodoro technique you improve the balance between staying in the zone, and taking a necessary recharge. So, again, I think what I'd like to do is show you a video, what I'm going to do is think about those three questions, how does this strategy work, what objectives are given in this video to make it really effective, and also why is it called the Pomodoro Technique to. So again, bear me one second so I can just grab that link for you guys. I'm just gonna show you one, this is the last video from us. And hopefully it's helpful

1:24:12

to wait for the YouTube ads to go. And I have to remember to make sure that I can share my screen properly after this. Okay, so. Okay, again,

1:24:28

the Pomodoro Technique is one of my favorite techniques to fight procrastination and maintain focus and productivity throughout the day. Stay tuned for tips on how to incorporate this into your study routine.

1:24:47

What's going on guys, this is Jay from med school insiders calm. First I want to talk to you a little bit about the history of the Pomodoro Technique. So it was invented back in the early 1990s by Francesco Cirillo, I don't know if I'm pronouncing that right, hit, he named it the Pomodoro Technique, after the tomato shapes timer that he used to actually track his work as a university student. Since then, This technique has gained much popularity in various productivity and self improvement circles. So the theory behind it is that any large task, or any series of tasks can be broken down into short timed intervals, called pomodoros each is separated by a short break. This takes advantage of the fact that our brains have limited attention spans, so as to how to use it. The only item you really need is a timer, you can go old fashioned or use your phone or computer with an app. My favorite app is called 3030 on the iPhone. It's my favorite because of its clean interface and customizability does making it easy to do the traditional Pomodoro or customize it to your liking. More on that in a little bit. So first, choose a task or series of tasks that you need to accomplish. Next, set the timer to 25 minutes. Continue to work on the task until the timer goes off, avoid constantly checking the timer. Once the timer goes off, take a

short break for five minutes. Get up during this time, do not take the break at the same spot that you were working. I personally like getting up pulling a Third World squat, stretching, moving around. Now is also the time to use the bathroom, and grab a refill for your water. After four Pomodoro cycles, take a longer break of 20 minutes. Rinse and repeat. During your Pomodoro cycles do your best to limit distractions. The whole point is 25 minutes of intense focus, don't be checking Facebook or Reddit or the med school insiders website, on and off, focus on the task at hand. So I personally put my phone on either airplane mode or Do Not Disturb mode, but be careful because Do Not Disturb mode can actually affect the notifications on your timer app. If you are using your smartphone app. If someone else comes knocking for help. Use the inform negotiate callback strategy, which was suggested by Francesco Cirillo himself so inform the distracting party that you're in the middle of something, negotiate a time when you can get back to them and call back when your Pomodoro is complete and you're ready to address their need, when to use it. I only found out about the technique in medical school, and if you've checked my first video ever link above right here, then you'll know that it is one of the key strategies that I wish I started using as an undergrad in college. So I often use this when I can't get myself motivated to study for a subject that is either particularly dull or boring. So anyways I get my Pomodoro app started, and I tell myself I just need to do one cycle of 25 minutes. By making this commitment small to just do a small amount of work, it's easier to get started. And once I finish that cycle. It always feels less daunting as I've built momentum. At this time, it's usually not a problem to keep moving forward with my work. I've also found it useful for reading textbook chapters, going through my Anki deck, and getting started on background reading for research projects. Remember though that Pomodoro is ultimately a productivity system to serve you. Therefore don't feel obligated to always take a break. If you're in the groove for longer days where you'll be studying for most of the days, such as the day before a final exam. I recommend you do take breaks, as this sustains your stamina and prevents burnout. Sometimes though, it's best to just keep chugging along, once you've built momentum. I often stop the Pomodoro app and continue my work without breaks when I'm either reviewing lectures or doing research, data analysis and writing. So, with reviewing lectures, I generally review one lecture, take a brief break after finishing the lecture and then move on to the next, these breaks feel more natural to me than taking time breaks. But as always, figure out what works best for you. So going on to research, while Pomodoro has been conducive to background research reading for myself, I find that the writing and the analysis part of research.

1:29:12

I think the rest is about his, his use for research so. But have you got the picture that the Pomodoro method says 25 minutes, five minute break, and then you, you repeat this cycle, okay, it's, it's really good and I think the best thing about it is something that he mentioned very early on, which was which was that it gets you started like even when you're having those days when you really don't want to have to do revision. If you just do one Pomodoro 125 minutes right. It gets you started, and you then get in, you get then get in the zone from there and it gives you like, it's those four things I mentioned before, which is like it. It gets you focused because you know that you've got you've got you've got a timer going, it means you stop your perfectionism, so you just move on after those 25 minutes. And one thing one good thing to get into the habit of is, how many of those you're going to need for each one so track how many 25 minute blocks TAs are taking. Don't get distracted in those 25 minutes, try and figure out like how many 25 minute blocks the task will take an estimate that, and then use part of the, one, one thing that's really important is use part of that time to do some retrieval practice to recap your last work

and review at the end. Okay, and set some objectives for yourself you know how many Pomodoro is am I going to do today, how many Pomodoro is this task take okay and don't move on to the next task until you feel like you've properly done, the one before. Okay. And so, the next method that I think is really helpful for you guys is, is taking notes where we talk loads about how taking notes and rereading notes is not helpful, but if you are going to make notes which you should be doing right, make them effective before you then put them into your, your flashcards or your, your mind maps or whatever it is, however you want, however you going to revise for retrieval practice in space practice right. So, make effective notes as you read revision guides or you read your textbooks, you take the information you're reading and extract the key points, which will help you remember it. Copying text word for word is pointless. It is pointless. Okay, copying text word word is utterly pointless, but the act of summarizing information with notes forces your brain to focus on the subject matter. And as I mentioned at the beginning students need to be active in revision, not just reading their notes and doing some colorful coloring in with a rainbow of highlights, making meaningful links and connections, is the most important thing. Okay, so the Cornell Method of this note taking it was named after the US university and the strategy gets students thinking metacognitive laser thinking, learning about their learning, asking questions, Noting key terms in summarizing the content being revised. So you write down the notes in the section which you keep it shorthand right you keep it just bullet points, not worth word bullet points okay, then your cues which go in that section on the left, they're like questions you might still have four key words that came up, and maybe visual cues like little diagrams that go alongside that that particular topic, and the summary is really important. Okay, so you must write down a summary of the topic before you move on to the next one, basically because if you're able to sum up all of the key points from memory, you can confidently say that you know it. When writing notes, remember that they should contain a summary, not an extensive repetition of what is in the textbook, okay. Don't crowd the page, stick to main headings and subheadings, use abbreviations, where appropriate, and try to reduce what you need to know on the topic down to one a4 sheet. Once you have this overview is easier to fill in the detail. Okay, so Cornell note taking is a really effective way of taking notes. And just lastly I'm going to come to come to the questions that come in at the end. And just like sort of, one other thing I really want to be clear about is it the exam period can be stressful, and that's why it's really important that you revise and prepare as, as much as effectively as you can because it helps reduce exam anxiety helps reduce your anxiety on the day, because you're going to be well prepared and you're going to have everything in your long term memory. So, there are strategies you can also do to look after your mental and physical health, right, for, for, for Foremost among those right, sleep, sleeping, eating right, taking breaks, exercise, they are the four big ones, sleeping right, eating right, taking breaks and exercise now you already saw the breaks were built in into the, the Pomodoro method. Now, eating right diet is important okay don't neglect it during the exam period Don't skip meals, stay consistent with a healthy balanced meals and stay hydrated. Drink lots of water right, sleep, slip staying up late to revise a really bad idea so you know we talked about memory right so your memory, if you, if you don't get enough sleep, sleep deprivation has a very negative effect on concentration on performance and on them. So, in fact not enough sleep has been shown in other studies to be up to you. You recall your memory is up to five times worse with bad sleep and then getting your eight to 10 hours a day. Okay. Exercise is really important to really good for your mental health. It gets serotonin inspiring, so it makes you feel good. And then it also gives you a nice break from it gives you a really like a really clear break from work, and to exercise, and it makes you feel good. So, really important. And of course, relax, right. You need to relax as well you need to find some time to relax, even during those crazy examples when



you're like doing a lot of revision, it's really essential that you take the time off, watch Netflix, have a read of some fiction or whatever it is you're reading or talk some friends hang out some friends right, you still need to build that in. And actually, one of the things I'm going to share with you guys in the chat is a link to where I've put some resources and one of those, one of those resources is a timetable that builds in all those things like into your day and it builds in exercise and relaxation and and make sure you're doing that, that studying different topics on the same day, right, not just doing a block of five hours on a single topic. Okay, so I'm going to sort of highlight. Sorry, I'm going to summarize all this stuff I've been talking about okay so these are my these are my top 10 Revision techniques. So, first one is quality over quantity which someone put at that very first spike today. So, work out at the very beginning when I asked you what it was. So I'll put that straight away, shorter, more focus revision is most effective divide your chunks into an hour to Pomodoro is 25 minutes, five minutes 25 minutes, five minutes, then another hour. After a break 25 minutes and five minutes 25 minutes, five minutes 10 longer break. Okay, so that's really important, really important to revisit your learning regularly, and this can be done much more easily by shorter revision blocks. Okay, second one, and it's, this is a big one. Okay, so I, the amount of times I've said to my students, right. So what So what have you been revising what topics, did you look at, and they tell me they reel off a bunch of topics that I know they're really good at right especially in maths right, they'll just sit and practice like the same topic again and again as I know you're good at that topic, you've smashed it in the last five exams, what are you doing right, and that's because it's easy to stay in your comfort zone, it's easy to stay in your comfort zone and review and revise topics that you feel most comfortable with, is more of a challenge, but really, really important that you identify and address any gaps in your knowledge and understanding and tackle them head on. Okay, one of the best strategies, you must have done this in school, I assume, is you rag re your topics right so you do traffic light core topics or specification points and you start working back from the areas which you've indicated as red, or amber, rather than the green topics that you know that you, that you haven't your long term memory. Okay, and, and someone asked, I think somewhere in the chat, is it a good strategy, whereas that was a really good question about talking to other people, right, is talking through Do you reckon blurting verbal is revision technique. Okay, so I'm going to come to that one in a sec, but that's a really good question. From Vijay for that. So one of the best ways to learn is through direct instruction, and this means quite simply teaching, another person. And so, teaching a topic to another person, if you're trying to learn for example, let's say, the process of photosynthesis in biology. And the best way to check your understanding is to put away your notes and flashcards away and teach a friend or family member, or even film yourself teaching right. Once you've done this, go back to your notes to check details and teach again or your flashcards, right. So, and teach again, elaborating on key concepts, as you go. So elaboration, which I haven't talked about yet is actually the key to the highest grades right so elaboration is when you demonstrate your higher order thinking skills by asking open ended questions and making connections between topics. So when you start thinking, I remember that topic and from my mind map I remember links to this, and you can then go and talk about it, you're getting to a really high level of understanding across not just that topic but the whole curriculum. So what you want to be doing is adding specific details and evidence as you go along, like how do these link. What's the common theme, and this can best be achieved. Often, when, when explaining a topic to someone else right oh actually I remember that this links to this and when you know when you're telling when you're telling this other person. And so, remember, it's important that you're not just rereading notes and highlighting key words and things like mind maps graphic organizers can be really effective vehicle to reconstruct revision topics in a meaningful and structured way. So enables you to make

original meaningful links and connections between topics. Okay, so a very effective revision technique to test knowledge and confidence, right, is this thing called just a minute and that's going back to what Viji does that which is a huge but it is blurring badly, which I love that is a phrase, by the way, but quite simply, all you do is talk for a minute, without pause or hesitation on a key revision topic, so you set a timer. Can you talk about that, without pause or hesitation for a minute. Okay, and as you do this, like I said before, elaborate on your ideas can you add more to the key facts and information to get those higher, higher marks those higher order thinking skills, and we've already talked about highlighters in detail, but please just get that in your head that rereading and highlighting is not effective, much more effective to create revision flashcards on key topics, put the flashcards away and test yourself on another, and test yourself or to teach another person the topic. And as we've talked about chunking right so more effective and deeper learning study has to take place in smaller chunks, over a longer period of time, as opposed to blocked practice, which involves cramming in as much learning and revision as possible into a shorter block of time, much less effective retrieval practice we've talked about when you leave some time in between learning topics, the brain forgets this information. However, the effort in retrieving the Forgotten learning helps embed information more securely in the long term memory. It might seem counterintuitive, but it's such an effective learning technique. Those lighter flashcards are so effective because they bring together all of these techniques, they help you with the spaced repetition, they help you with making sure that you're, you're testing yourself, and you're, you know, you're, you're, it's consistent right you're doing it over a long period of time because you can keep extending the gaps between times with new flashcards or quit or using Quizlet. And then of course the last thing I just spoke about, is eating, sleeping, exercise and relaxation, your well being so that attend 10 biggest things that we talked about today, in sort of in a single slide. Okay, so what I just want you guys to think about is to answer these last three questions right, is to think about one strategy that you're going to take away and use. And to answer that question is music does music help you revise and you might and you might want it and whoever it was,

1:40:55

wants to look into the research behind that, then by all means do but I think we all agree that that is now false. The research has shown to be false. And it's important to put your phone away, because of the split attention effect. Okay so, because your brain because your working memory can only hold those 579 pieces of information any one time, you're putting a much bigger strain on your brain by diverting its attention to other things. And the Pomodoro method is brilliant because it gets you started right, everything starts from the beginning. The secret of getting ahead is getting started. Okay, so I hope that's been helpful in some way, I'm going to stop there and I'm going to look at some of the questions that you've got coming in. The graphic organizers so what I meant there is like things that are visual. So you've got your mind maps and and other strategies that have visual to help you and where you might have seen actually in the in the in the video I showed you for the was it called, I've got from the last video for the flashcards the lightning technique he used knowledge organizers So knowledge organizers that your school might be using. Another example of a graphic organizer. And I'm glad it's been really helpful that's great to see all that coming in. I'm just trying to see some other questions here some great questions. Oh yeah so and Hussin absolutely continue if you're a levels like these aren't strategies for GCSE these are strategies I use these strategies, like when I people have to study for, you know if you're going to study law you need to pass the bar, I would use it for like studying law or going if I was wanting to study medicine, I would use it to learn on my medicine database I'd use these

strategies, whatever I'm learning right it's not about, it's not about the period or the GCSE or the a level, it's about the fact that is how you remember stuff right how you remember stuff and then able to put it into practice. And there was a 10 hours during weekdays and the best you can do. Yeah so that so, so, in terms of well being right it's sort of like you, you're you you tell yourself about well being right, you know you know yourself, you know, if you feel like you're being overly strained overstressed, and let's be honest right now, you're going to increase probably your amount of revision as time goes on as you get close to the exams. But please, even if you do a little bit. Be consistent enough and keep retrieving okay. And yes so Miriam I would, I would advise Cornell notes for note taking lessons yeah like for any thing is such a good way of taking notes is so much more effective. And I'll put this presentation, in that, in the folder for you guys. I haven't given you the link to the folder actually ever. Let me give you the link to the folder. So I'm going to put lots of stuff in there to help you guys.

1:43:43

Yeah, so it's not all in there at the moment, guys, but I'm just gonna put in a link in the chat now, You should be able to click on that and access a folder and I'll add, I'm going to add stuff to it, based on what we've seen today. And there any other questions here that are really good. So, is it better to take short pregnancy with it, is it okay to move on to the next task. If you stop making progress on the last one so that's a really good question. So, um, what by progress though, is like maybe what you need to do there Helena is like continue chunking right, get it to the point where it's manageable, and you can test yourself on it, and you know that you've learned what you're doing, and then don't worry about the fact that you didn't do everything you wanted to, because you've chunked it into a huge chunk into a manageable amount for that day right then you can do. Another, another aspect of that topic on another day, and that should be helpful. Afterwards, and yet patriotic time absolutely fine and does, does that lead you to rush the brakes by speeding through, don't rush the brakes you know your brakes are on a timer to five minutes. Okay, so what you want to do well there is like say well maybe I need to pomodoros for this for this topic rather than one, that's fine, like some, some things that some big, some big topics or big, you know, if you're writing a whole book, you're going to need lots of pomodoros lots of these different sections. I'm just going to see if there's any questions I've missed, but there's, by the way you guys were amazing. Like, even from the beginning I knew that you guys, you guys are going to go far, I could tell him from that word map and how excellent Your questions are that you're that you're going to be really excellent, and using these revision strategies and go very far. How would you mimic a study environment, with a test taker, I think I answered that one. Yeah. Yeah, so one question said is like what do you do if you've got a noisy environment at home. Now like I totally appreciate that like everyone's home environments are completely different. You, especially during COVID We've all learned how to live with like our pets and all our family everywhere like on top of each other, like I totally get that, but I would, I would suggest that it's really important to find a quiet environment where you can't be at least can't be in, like, people can't like jump in on you revising and distract you. So one, maybe what you can do is like look at staying after school. Schools often really really receptive to like providing you a place to work and study quietly particularly in sixth form or your local library if you've got a library close by or a community center, or a friend's house and you can test each other, but I do think a quiet place to learn is, is important. I think I've answered those questions. Well, I'm glad to hear that it might be a strong suit now. Thank you guys so many lovely comments there. I'm really glad it's useful. So had a note so one thing you could do instead of make your own flashcards and why this is important is like when you say download buy a pack, that's fine. You don't

have to know you mean the actual cards. Yeah, that's fine, download or buy, like absolutely like it's just quite easy thing to do to cup, some cards, you know, make your own, but if you don't want to and you want to buy them in bulk, be my guest. Absolutely.

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Gate co right. Well, I

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think that's everything if there's any other questions I'm happy to stay on NASA, and if not, thank you very much. Just a minute. Okay. No worries, has that. So, well that's it. That's a great name Diyanet Genesis, and what it means is you speak for a full minute about that topic that you've been looking at right in your Pomodoro whatever it is you speak you you're able to speak about it for a whole minute without repeating yourself or hesitating. So can you summarize that topic in a minute, and speak about it for a whole minute. Because then if you can, you really embedded that into your long term memory, and really understood it well.

1:47:26

No worries, Millie.

1:47:29

Does that make sense the answers. I hope that's helpful. Nice one, thank you take care as well. Okay I think we're good.

1:47:50

Thank you so much John. That was really great. Um, yeah. And these, like, like you said in your session, these are skills that will be really helpful throughout your a level degree so and level three in the whole degree. So kind of coming in them coming, learning these skills just as you're about to go into a levels is really good because you can you can keep those good techniques and there's good habits going from day one. And you can kind of start a new leaf if you like. So yeah, thank you very much, John. and I hope you all have a great weekend. Thank you very much for coming to the session and thank you John for leaving it. Thanks everyone, take care.