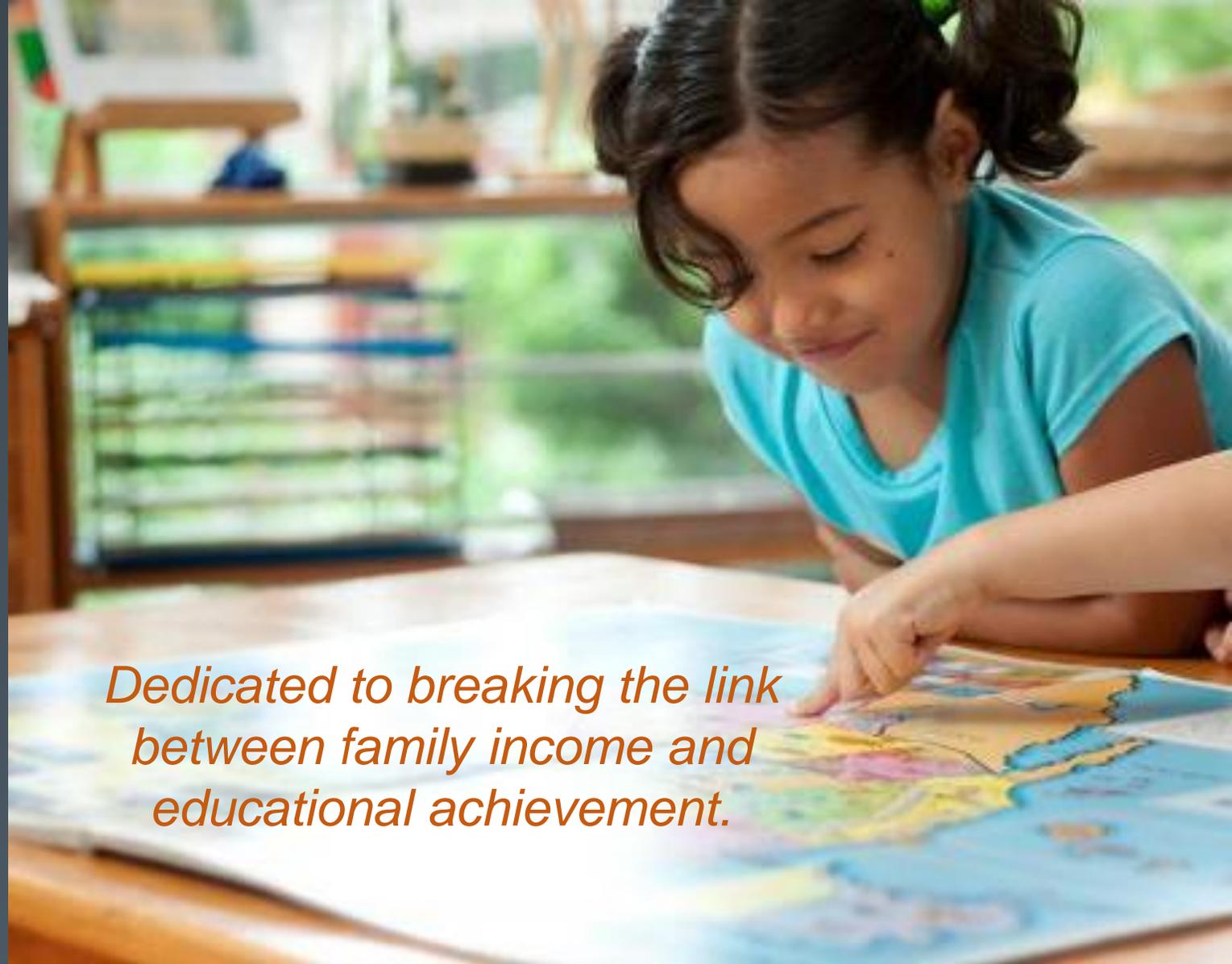


Online tools that may support you in achieving the recommendations from the evidence for effective remote learning.

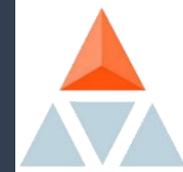
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at John Taylor



*Dedicated to breaking the link
between family income and
educational achievement.*

Using Digital Technology to Improve Learning & Remote Learning

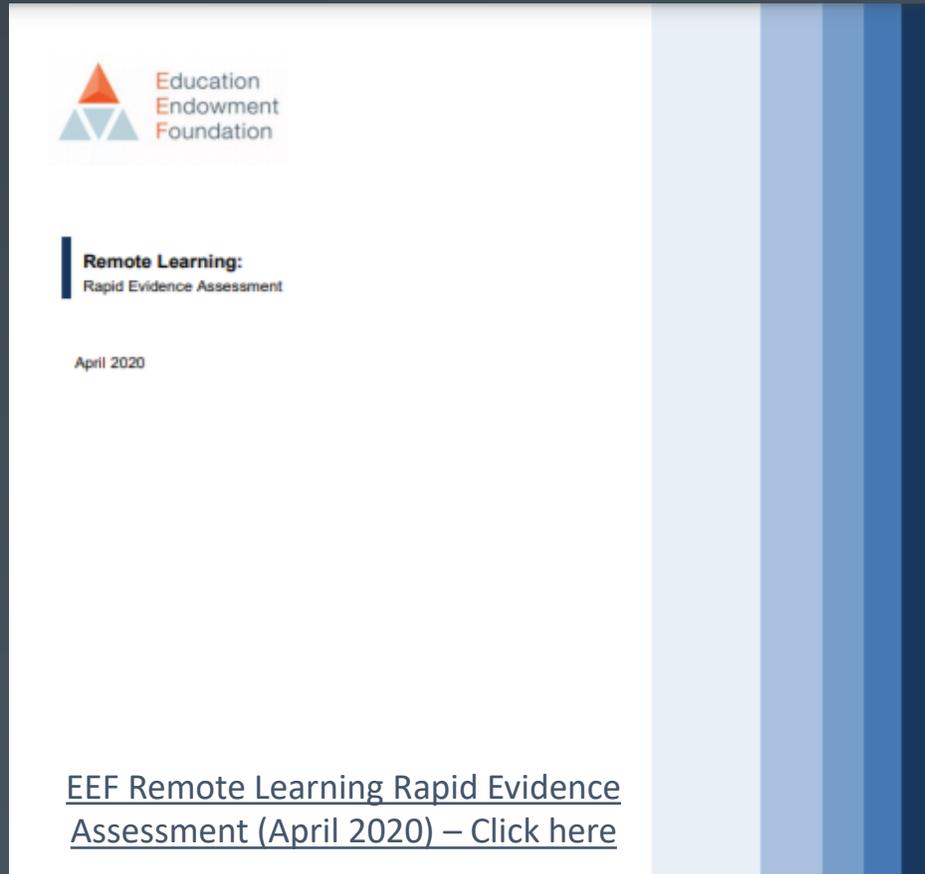
Evidence-based Teaching & Learning



Education
Endowment
Foundation

Drawing on the Recommendations and Evidence Base

2020 Rapid Evidence Assessment



Examined existing research (from 60 systematic reviews and meta-analyses*)

Considering approaches that schools could use, or have used, to support remote learning.

*not conducted in relation to a Covid pandemic.

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The Recommendations and Evidence Base

More effective remote learning models contain the following ingredients and core features:

- Features of good teaching in the classroom are the same for remote or distance learning and need to be included in plans, tasks and learning e.g. **clear explanations, scaffolding and feedback**, regardless of the method of teaching (live or pre-recorded delivery)
- **Worked examples** help to reduce cognitive load by allowing pupils to focus on small '**chunks**' in learning
- **Peer interactions** can motivate pupils and improve outcomes (including **sharing models of good work, live discussions of content and peer feedback**), most notably with older students
- **Prompt & model metacognition and self-regulation** - Prompt pupils to reflect on their work or to consider the strategies they have used/will use if they get stuck, have been highlighted as valuable and most likely to benefit disadvantaged pupils when made explicit (e.g. checklists and strategies, metacognitive talk)
- A **lack of technology and technological literacy is a barrier** to successful remote instruction, particularly for disadvantaged students.

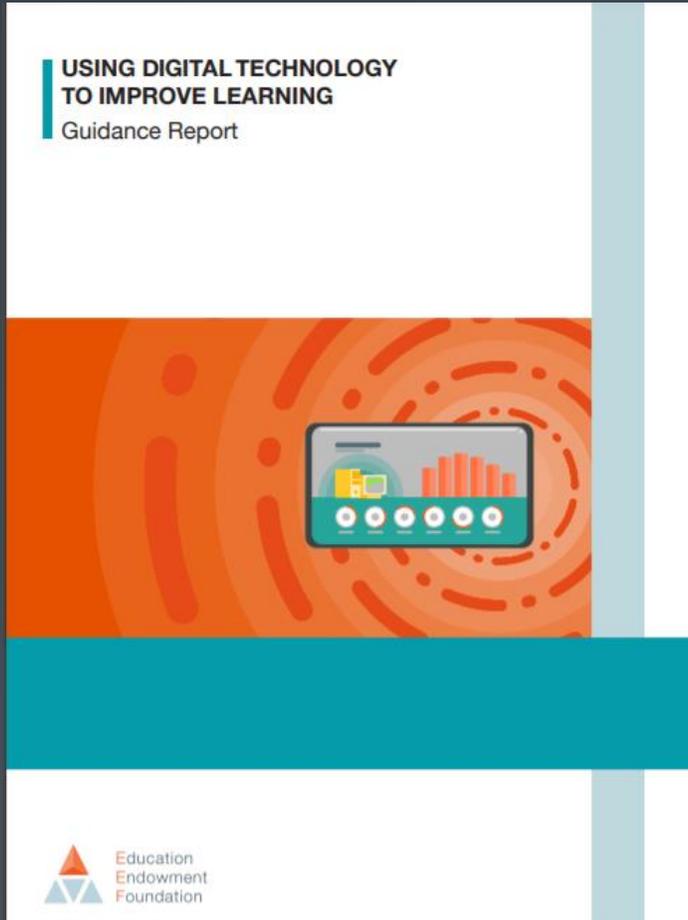
EEFs Rapid Evidence Assessment for Remote learning, April 2020.

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Using Digital Technology Guidance Report Recommendations



EEF Guidance Report – [Click here](#)

1 Consider how technology will improve teaching and learning before introducing it 	2 Technology can be used to improve the quality of explanations and modelling
3 Technology offers ways to improve the impact of pupil practice 	4 Technology can play a role in improving assessment and feedback

Digital technology

Moderate impact for moderate cost, based on extensive evidence.



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The common ground? The fundamentals of effective teaching...

Josh Goodrich, *Teaching and Learning lead for the Oasis Schools trust.*
and CEO of [Powerful Action Steps](#) and [steplab](#).

“Remote teaching is still teaching. But, it’s teaching where some of the key elements of effective practice are hugely amplified while others are quietened, some completely muted. To teach effectively online, we need to focus all our attention on lesson design and pedagogy that targets the amplified principles.”

[Click here to read Josh Goodrich’s blog for the Staffordshire Research School](#)

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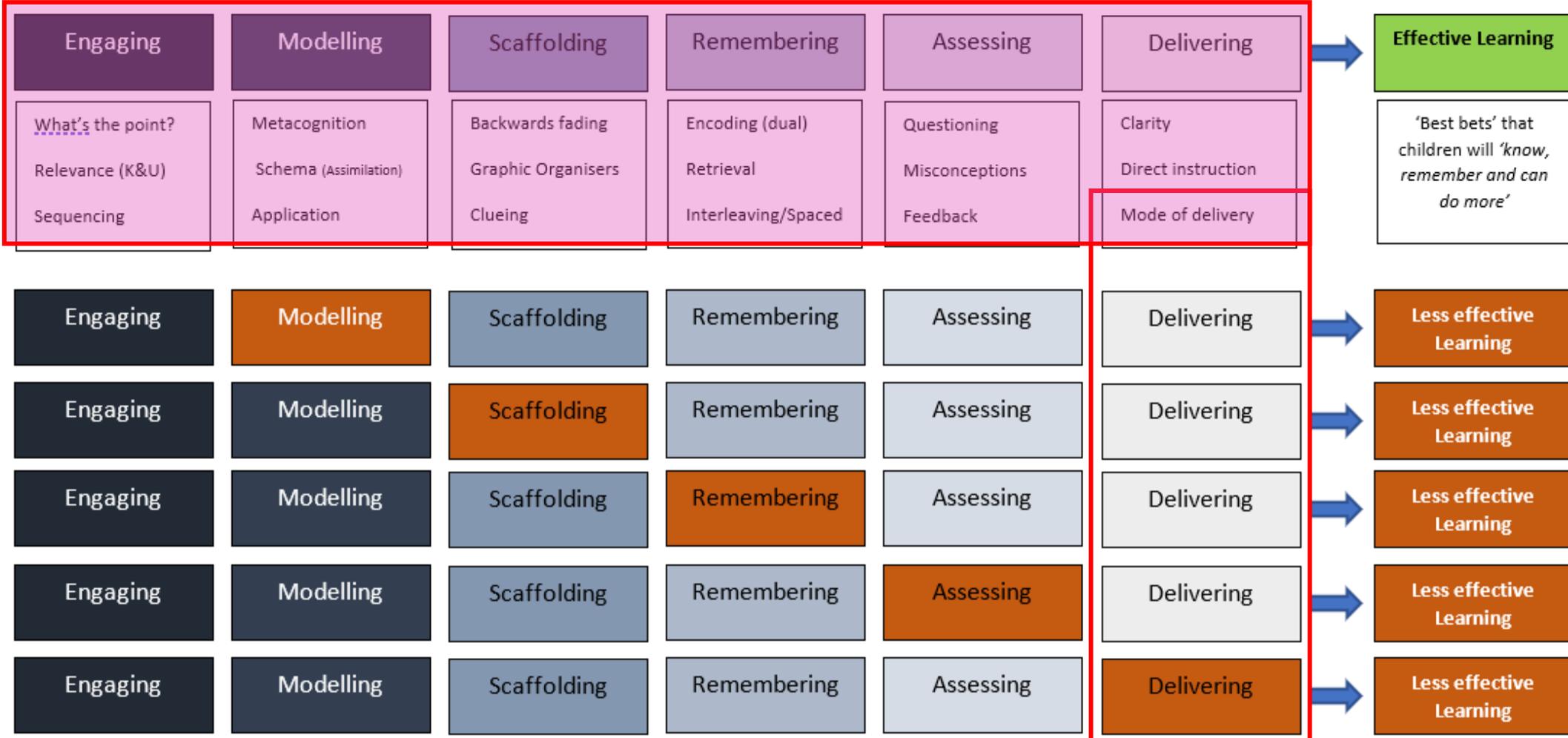
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Staffordshire Research School...where evidence informs T&L



Considerate Planning for Remote Teaching & Learning ...



This PPT is about using digital tech tools to support the delivery of well planned lessons

The evidence of using digital tech is anchored in pedagogy & cognitive science, not specific online tools.

The following suggestions are online tools that may support teachers to achieve the evidence-based recommendations relating to effective planning and pedagogy...

The tools do not have an evidence-based themselves for being the most effective methods...

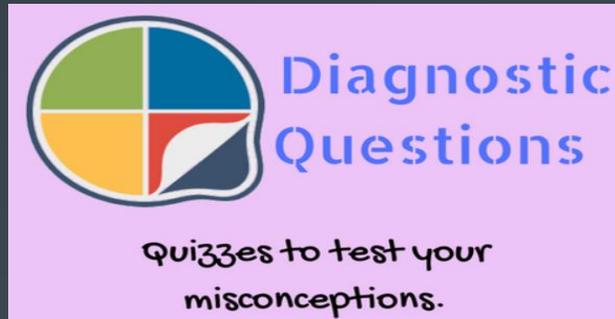
but they may help!

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#Take Away 1



<https://diagnosticquestions.com/>

Purpose

- Recall of Knowledge
- Generating ideas
- Developing questions
- Identifying Gaps
- Unpicking the learning
- Metacognition/ Scaffolding

Work out the correct answer to the binary addition of:
01001010 + 00011011

A 01100101

B 01111111

C 01011011

D 11111111

Original question from https://en.wikibooks.org/wiki/A-level_Computing_2009 (CC BY-NC-SA)

A B C D < 1 | 30 >

Q10. A key logger is... *

A A program which types for you

B A program which reads out anything which is on your screen

C A program which records everything that you type on a computer

D A program which takes over your computer and shuts it down

Explain why you have selected that answer for Q10 *

Long-answer text

Q18 Why do we use primary storage?

A: Secondary storage isn't fast enough
B: You can store more in primary storage
C: Data is always safe in primary storage
D: Secondary storage can corrupt data

A B C D

Q19 Which method of storage is volatile?

A: Magnetic
B: RAM
C: Cloud
D: Optical

A B C D

Q1 Question 5: Which of the following is an advantage of using a USB memory stick?

A: Cheap
 B: Portability
 C: Wireless connection
 D: Extra memory

A B C D

Hamson Flynn - primary is located near to the cpu and is easy to access

EXPLANATIONS

ADD TO FEEDBACK

Insights

Average 17.42/34 points Median 17/34 points Range 4-29 points

Total points distribution

Frequently missed questions ?

Question Correct responses

A worm: 82/182

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#Take Away 2



<https://www.mentimeter.com/>



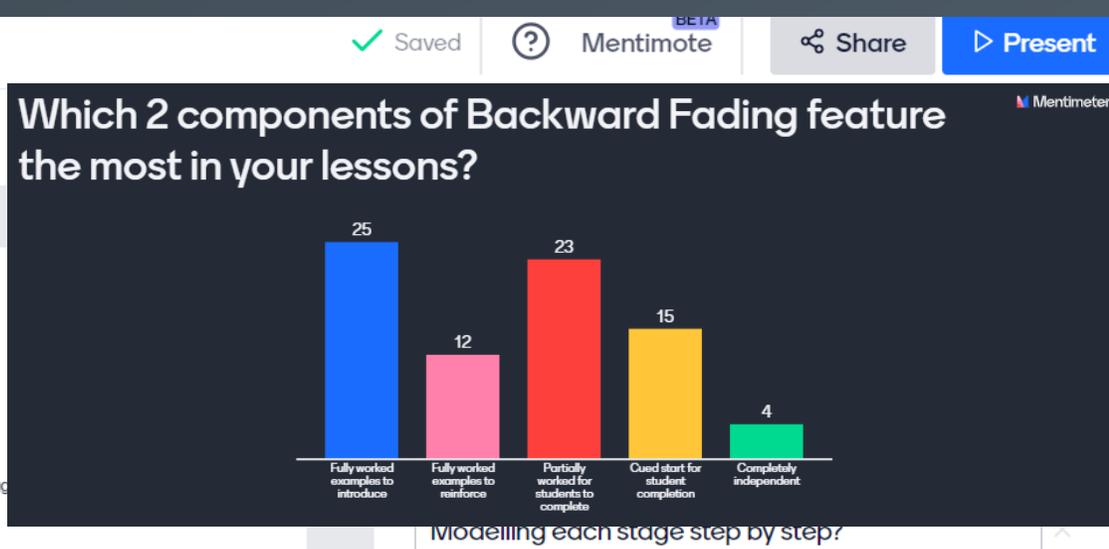
Assessing – checking for misconceptions using a free live polling/survey tool.

Home / Dept T&L Meeting - Nov 2020 Part 2

Go to www.menti.com and use the code 67 87 05 8

Rank how confident you are at...

1st	Modelling each stage by step?
2nd	Set tasks to emulate the model?
3rd	Modelling alternatives and other examples?
4th	Review the success or quality of your own work?
5th	Modelling how you organise messy thinking?

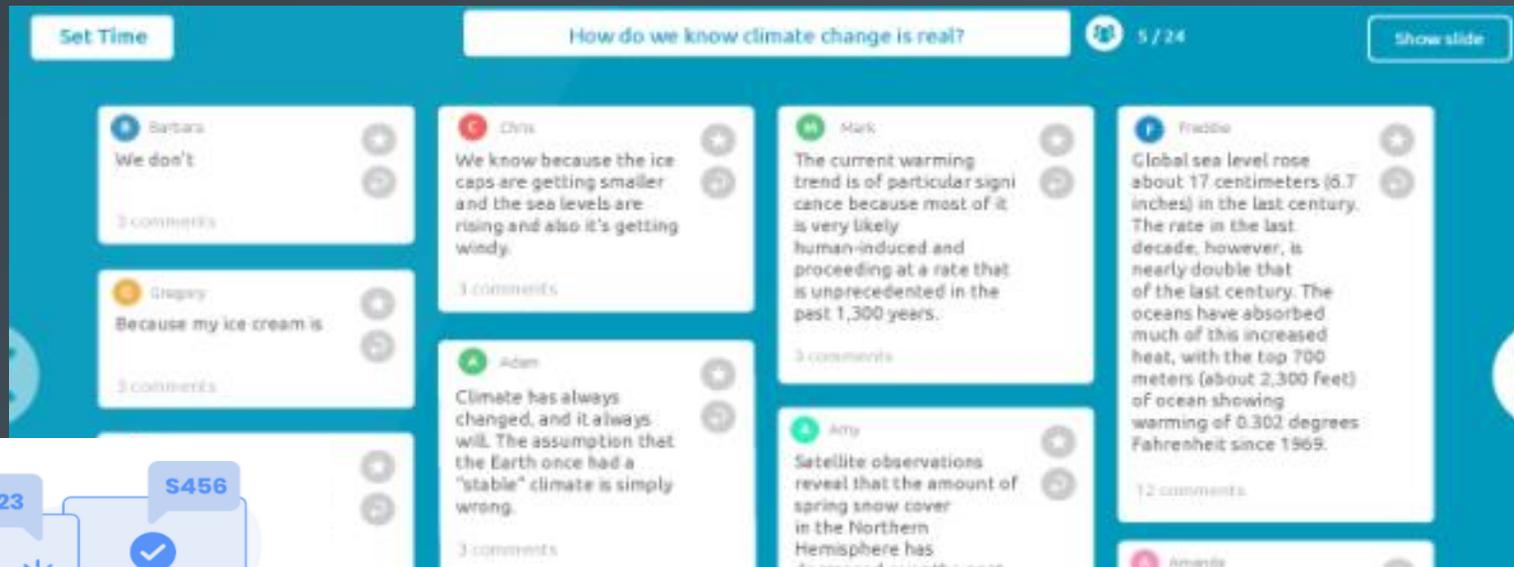


Assessing – checking for misconceptions. Simplest way...select a student to teach a key concept back to the class to start the next lesson.

#Take Away 3



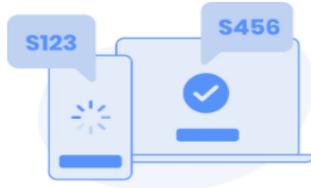
<https://spiral.ac/>



- Purpose
- Assessing
 - Identifying misconceptions
 - Visual thinking /engagement
 - Triggers for feedback and discussion



Launch an activity or post an assignment to be completed asynchronously



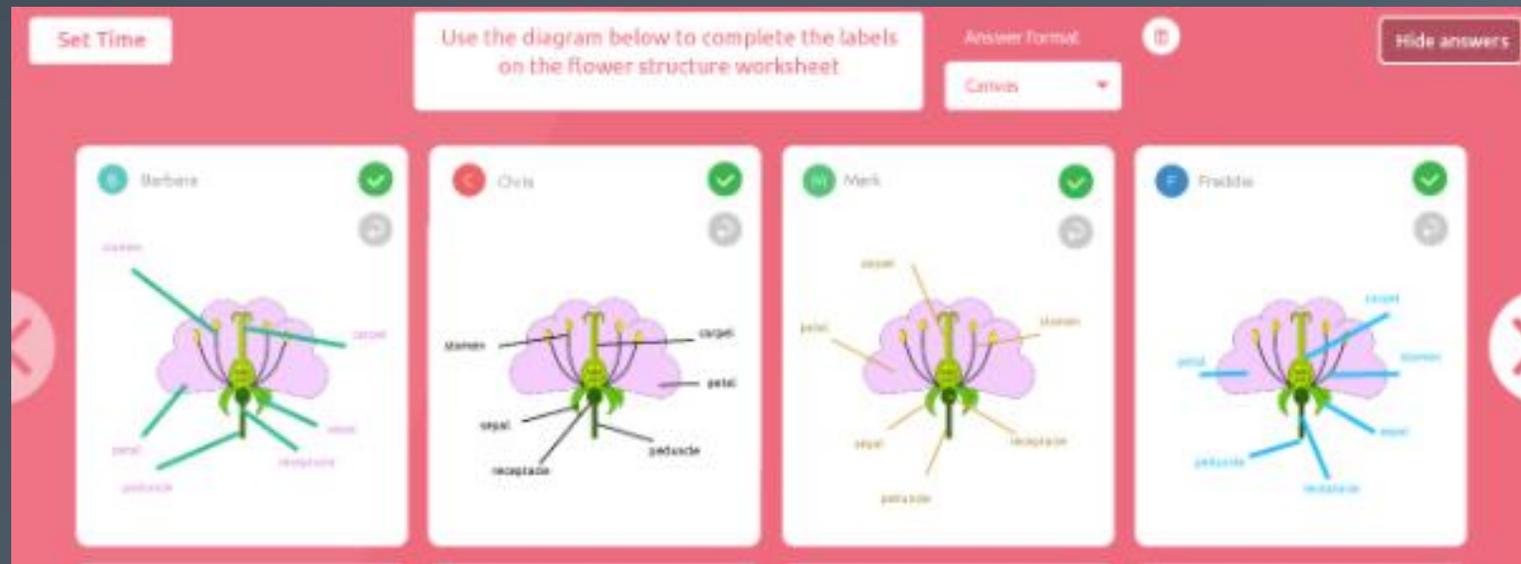
Students connect with the activity using a simple code



Students answers appear live so they can learn from each other



Or you can review, grade and feedback assignments off-line



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#Take Away 4

Recall Activities

9P2 Recall

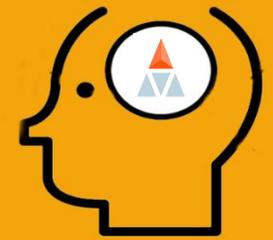
Score a minimum of 10 points!



Last lesson 1pt	Last week 2pts	Further back 3pts	Way back 4pts
-----------------	----------------	-------------------	---------------

1. What is an asset?	2. What does the colour red mean?	3. Give an example of a Print and Online graphic?	4. What is a digital graphic?	In your Workbook
5. Name three purposes of digital graphics?	6. What is white space?	7. What is the rule of three?	8. What does composition mean?	

Retrieval Practice



Purpose

- Low stakes testing
- Questioning & feedback
- Interleaving
- Spaced practice

Database on Retrieval Practice studies/research collated by

<https://www.retrievalpractice.org/retrievalpractice>

access it here:

<https://docs.google.com/spreadsheets/d/1liuaWuGO>

AD9EDv61s-

fZKGzilzOhxr8lzjcEw1zyeFI/edit#gid=1459429581

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#Take Aways 5a, b, and c



Jamboard

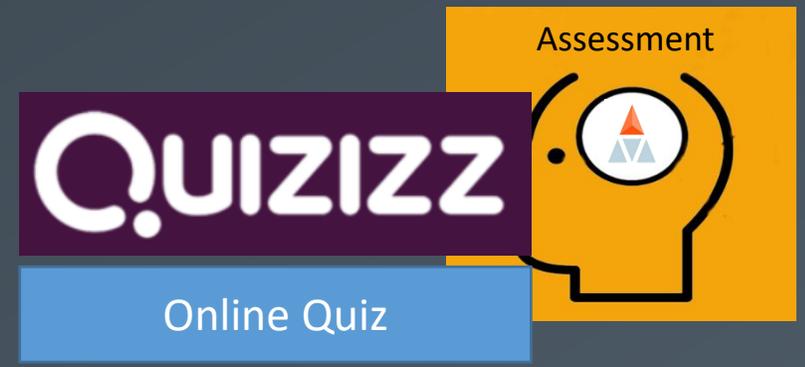
Whiteboards



EDpuzzle

Make any video your lesson

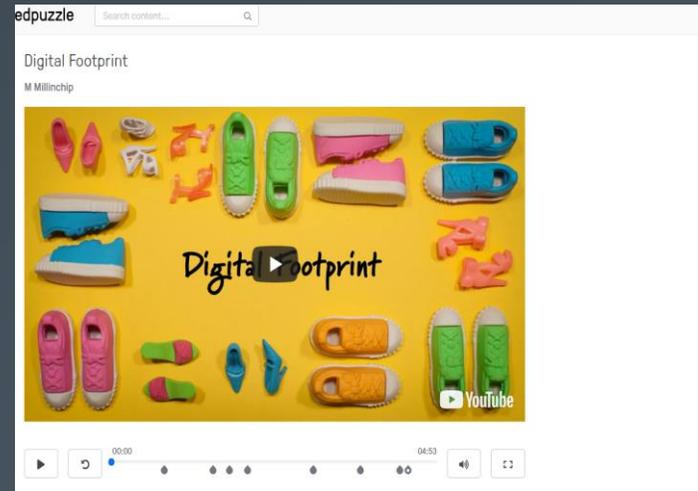
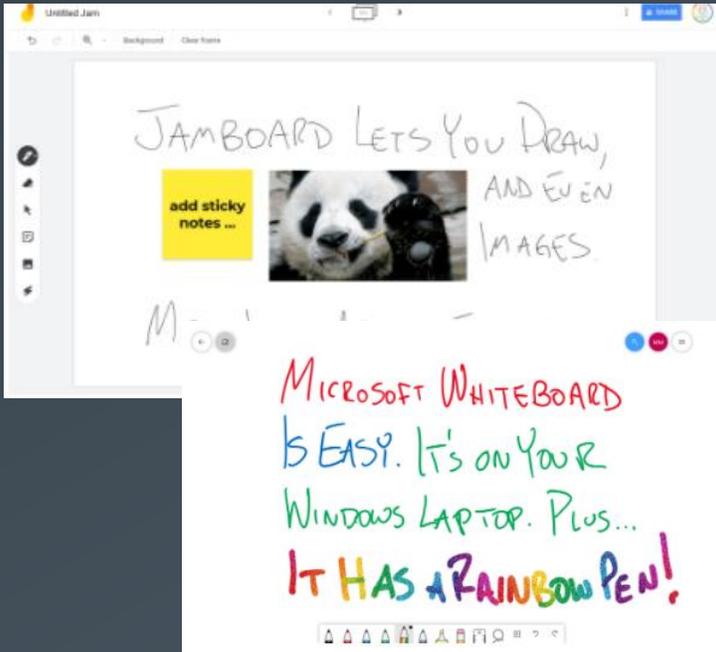
Edpuzzle



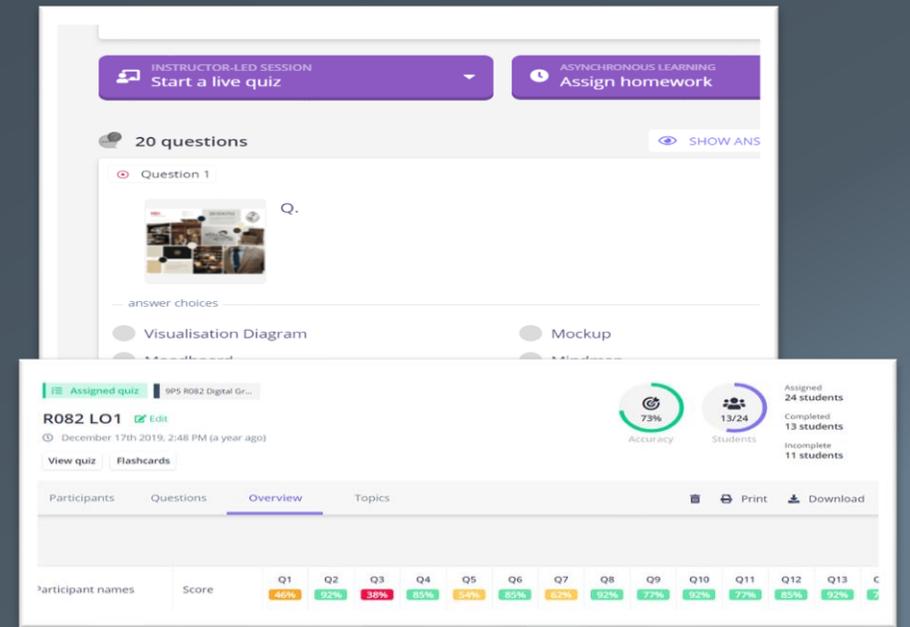
Quizizz

Online Quiz

Assessment



Embed key questions into YouTube or other for engagement and to check understanding before moving on



jamboard.google.com

<https://edpuzzle.com/content>

<https://quizizz.com/>

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#Take Away 6

Assessing – checking for misconceptions using



<https://nearpod.com/login>



Collaborate Board

Misconceptions



Digital Technology Feedback

Biggest challenges when delivering remote learning?

248

Introducing Collaborate Board - an interactive brainstorming tool.



Using Collaborate Board students can see their text and images responses shared with the class in real time. Keep classroom discussion lively and engaging with Nearpod!

Spark class discussion with Collaborate
Create now to facilitate brainstorming

Create Now

Gamified Review Quiz
Create now to lead a gamified review

Create Now

Bell Ringer Writing Prompt
Create now to start your class with a writing prompt

Create Now

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#Take Away 7



<https://teacher.desmos.com/>

Can you match the key learning objectives related to fractions, decimals and percentages?

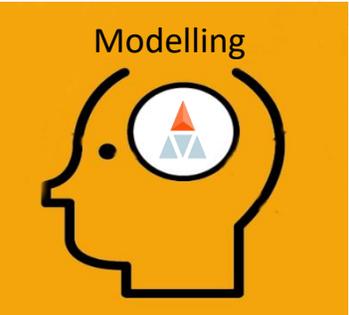
Recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity.

Year 1

Compare and order fractions whose denominators are all multiples of the same number, with up to four fractions in a set.

Year 6

Use co...
to sim...
use co...
to exp...
the sa...
denom...



Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one digit numbers or quantities by 10.

Year 2

Year 5

Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$

<https://student.desmos.com/join/5srezx>

Year 3

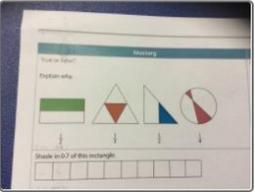
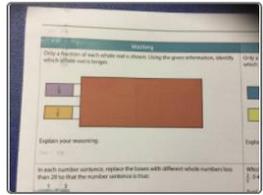
Add and subtract fractions with the same denominator beyond one whole.

Year 4

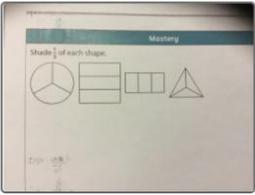
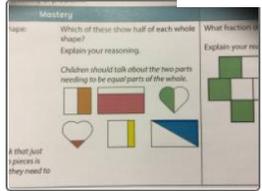
Year 5

Purpose

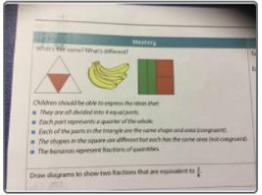
- Modelling Metacognitive talk
- Scaffolding (I, we, you do)
- Assessing
- Peer interactions (REA)



Year 4



Year 2



Year 1

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#Take Away 8



<https://www.uxtweak.com/>

A free survey site that allows a card sorting option (for 20 cards) into categories that can then be ranked. Captures individual student responses.

Purpose

- Assessing
- Identifying misconceptions
- Interactive thinking
- Triggers for feedback and discussion

Training sessions are followed up by discussions between self-selecting groups of teachers.

There isn't a culture of quality improvement—staff feel pressured to get it right immediately.

A school decides on a few clear choices and pursues them diligently.

We know where to be 'tight' and where to be 'loose' for our intervention.

A school takes on multiple (>5) implementation projects simultaneously.

A tight area of focus for improvement is specified prior to considering what to implement.

New skills, knowledge and strategies are introduced through explicit up-front training.

A programme of activity is based on evidence of what has and hasn't

Less effective
Implementation

0 CARDS

Other

0 CARDS

Assessment

More effective
Implementation

0 CARDS

Step 1

To rename a new category, click its title and type.

Step 2

Drop more cards into a category to add more than one card into the group.

To create more categories, drag cards over empty space and drop them there.

Once you're finished, click "Finish sort" on the right. Enjoy!

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#Take Away 8

WHITEBOARD.fi

<https://whiteboard.fi/>

A free site that provides student and class whiteboards. Works with all devices. As a teacher see all your students' whiteboards in real time, so you can follow their progress, while the students only see their own whiteboard and the teacher's. Student join using a link or code.



Purpose

- Assessing
- Identifying misconceptions
- Modelling & scaffolding
- Triggers for feedback and discussion

What Does it Mean to Practice Digital Citizenship?			What Does it Mean to Practice Digital Citizenship?		
Hear 	See 	Feel 	Hear 	See 	Feel 
	.org or .edu	Respected	Kind words		Respected
Dan the Demo Student			Susy the Demo Student		

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#Take Away 9



An online pinboard, collaboration and potential assessment tool.

Start with a blank ...



Wall PREVIEW
Pack content in a brick-like layout.

SELECT



Canvas PREVIEW
Scatter, group, and connect content in any way.

SELECT



Stream PREVIEW
Streamline content in an easy to read, top-to-bottom feed.

SELECT



SELECT



Timeline PREVIEW
Place content along a horizontal line.

SELECT

J. Powers + 2 + 10d
Superpowers
Additional reading to help you develop your own subject knowledge

The screenshot shows a Padlet board with 8 columns of content. Each column has a title and a preview of an article or image. The columns are:

- 7.1 - Physical and human superpower characteristics
- 7.2 - How do patterns of power change over time?
- 7.3 - Emerging powers vary in their influence on people and the physical environment.
- 7.4 - Superpowers have a significant influence over the global economic system
- 7.5 - Superpowers and emerging nations play a key role in international decision making concerning the people and the environment.
- 7.6 - Global concerns about the physical environment are disproportionately influenced by superpower actions.
- 7.7 - Global influence is contested in a number of different economic, environmental and political spheres.
- 7.8 - Developing nations have changing relationships with superpowers with consequences for people and the physical environment.

PREVIEW
to points on a map.

SELECT

Purpose

- Organising thinking (graphically)
- Efficiency (structured learning/a degree of scaffolding)
- Appropriate resource selection
- Independent reading

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#Take Away 10



Free Padlet page from the Staffordshire Research School .

EEF Research & Evidence Guidance Report References Library

- 14 EEF Guidance Reports and Pupil Premium booklet (including Digital Technology)
- Over 760 direct links to the **research sources from all EEF guidance reports**– all in one place

References from the Education Endowment Foundation's (EEF) Guidance Reports
Direct reference links and additional reading materials supporting the EEF's Guidance Reports to save time, reduce duplication of work and support delegates and facilitators at the Staffordshire Research School and across the Reserach School Network.

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The EEF Guide to the Pupil Premium
Guidance Document Download
THE EEF GUIDE TO THE PUPIL PREMIUM
Pupil Premium Guidance iPDF PDF document
educationendowmentfoundation.org.uk
FURTHER READING LINKS
EEF (2020) Best evidence on impact of school closures on the attainment gap. Rapid evidence assessment examining the potential impact of school closures on the attainment gap.
Best evidence on impact of school closure... The EEF's rapid evidence assessment ex...
educationendowmentfoundation

Putting Evidence to Work - A School's Guide to Implementation
Guidance Report Download
Putting Evidence to Work - A School's G... Guidance Report: Putting Evidence to Wo...
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REFERENCE LINKS
1. Aarons, G. et al. (2010). Advancing a Conceptual Model of Evidence-Based Practice Implementation in Public Service Sectors. Administration and Policy in Mental Health and Mental Health Services Research. 38(1): p4–23.
PMC
Advancing a Conceptual Model of Evid... Implementation science is a quickly gro...
pubmed central (pmc)

Metacognition and Self-regulated Learning
Guidance Report Download
Metacognition and self-regulated learning
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REFERENCE LINKS
1. EEF's Early Years Toolkit- Self-regulation Strategies
Self-regulation strategies | EY Toolkit Str...
In the News Commenting on today's FIR...
educationendowmentfoundation
2. EEF Guidance Reports

Improving Behaviour in Schools
Guidance Report Download
Improving Behaviour in Schools
Six recommendations for improving beh...
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REFERENCE LINKS
1. Freeman, Kenneth John (1907) 'Schools of Hellas: anEssay on the Practice and Theory of Ancient GreekEducation from 600 to 300 BC.'
SCHOOLS OF HELLAS
AN ESSAY ON THE PRACTICE AND THEORY OF ANCIENT GREEK EDUCATION
Schools of Hellas : an essay on the prac...
Schools of Hellas : an essay on the pract...
welcome collection
2. Barmby, P. (2006) 'Improving teacher recruitment and retention: the importance of

Improving Social and Emotional Learning in Primary Schools
Guidance Report Download
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Six recommendations for improving soci...
educationendowmentfoundation
REFERENCE LINKS
1. Weissberg, R. et al. (2015) 'Social and emotional learning:Past, present, and future', in J. A. Durlak, C. E. Domitrovich,R. P. Weissberg and T. P. Gullotta (eds), Handbook of social and emotional learning: Research and practice, New York, NY:Guilford (pp. 3–19).
CHAPTER 1
Social and Emotional Learning
Past, Present, and Future
Roger P. Weissberg, Joseph A. Durlak, Catherine E. Domitrovich, and Thomas P. Gullotta

Special Educational Needs in Mainstream Schools
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Special Educational Needs in Mainstrea...
Five recommendations on special educa...
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REFERENCE LINKS
1. Cullen, M. A., Lindsay, G., Hastings, R., Denne,L. and Stanfor, C. with Beqiraj, L., Elahi, F.,Gemegah, E., Hayden, N., Kander, I., Lykomitrou,F. and Zander, J. (2020) 'SEND Evidence Review:Best Available Evidence. A Report to the Education Endowment Foundation', London: EEF
Special Educational Needs in Mainstream Schools: Evidence Review

Making Best Use of Teaching Assistants
Guidance Report Download
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Guidance to help primary and secondary ...
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REFERENCE LINKS
1. Higgins, S., Katsipataka, M., Kokotsaki, D., Coleman,R., Major, L.E. and Coe, R. (2013) The Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit. London: Education Endowment Foundation.
Teaching and Learning Toolkit
An accessible summary of the internatio...
educationendowmentfoundation
2. Blatchford, P., Russell, A.

<https://researchschool.org.uk/staffordshire/news/eef-guidance-report-reference-library/>

The Evidence base is in the Cognitive Science...

Technology may help, but it is not the fix – thorough planning for how students learn is the best bet for high quality remote teaching.

You can improve your delivery via technology, but you can still be delivering poor quality lessons and weak learning experiences.

Engagement can be a bad proxy for learning.
Plan for learning first, find the digital tool after (not vice versa)!

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Regular updates & Newsletter -

<https://researchschool.org.uk/staffordshire/news/newsletter/>

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