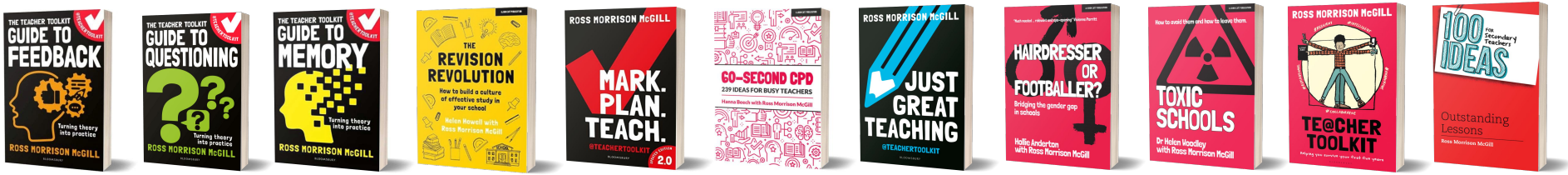

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Unpicking Rosenshine

1. What is effective instruction?
2. What does it look like in YOUR classroom?

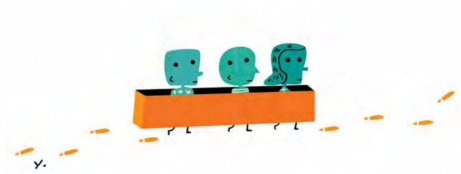
Paper

@TeacherToolkit
Classroom Ideas, Teacher Training & School Resources

17

Principles of Instruction

Research-Based Strategies That All Teachers Should Know



By Barak Rosenshine

This article presents 10 research-based principles of instruction, along with suggestions for classroom practice. These principles come from three sources: (a) research in cognitive science, (b) research on master teachers, and (c) research on cognitive supports. Each is briefly explained below.

A: Research in cognitive science: This research focuses on how our brains acquire and use information. This cognitive research also provides suggestions on how we might overcome the limitations of our working memory (i.e., the mental "space" in which thinking occurs) when learning new material.

B: Research on the classroom practices of master teachers: Master teachers are those teachers whose classrooms made the highest gains on achievement tests. In a series of studies, a wide range of teachers were observed as they taught, and the investigators coded how they presented new material, how and whether they checked for student understanding, the types of support they provided to their students, and a number of other instructional activities. By also gathering student achievement data, researchers were able to identify the ways in which the more and less effective teachers differed.

C: Research on cognitive supports to help students learn complex tasks: Effective instructional procedures—such as thinking aloud, providing students with scaffolds, and providing students with models—come from this research.

Barak Rosenshine is an emeritus professor of educational psychology in the College of Education at the University of Illinois at Urbana-Champaign. A distinguished researcher, he has spent much of the past four decades identifying the hallmarks of effective teaching. He began his career as a high school history teacher in the Chicago public schools. This article is adapted with permission from Principles of Instruction *by Barak Rosenshine. Published by the International Academy of Education in 2010, the original report is available at www.ibe.unesco.org/fileadmin/user_upload/Publications/Educational_Practices/EdPractices_21.pdf.*

ILLUSTRATION BY LAWRIN TOWNS

Even though these are three very different bodies of research, there is *no conflict at all* between the instructional suggestions that come from each of these three sources. In other words, these three sources supplement and complement each other. The fact that the instructional ideas from three different sources supplement and complement each other gives us faith in the validity of these findings.

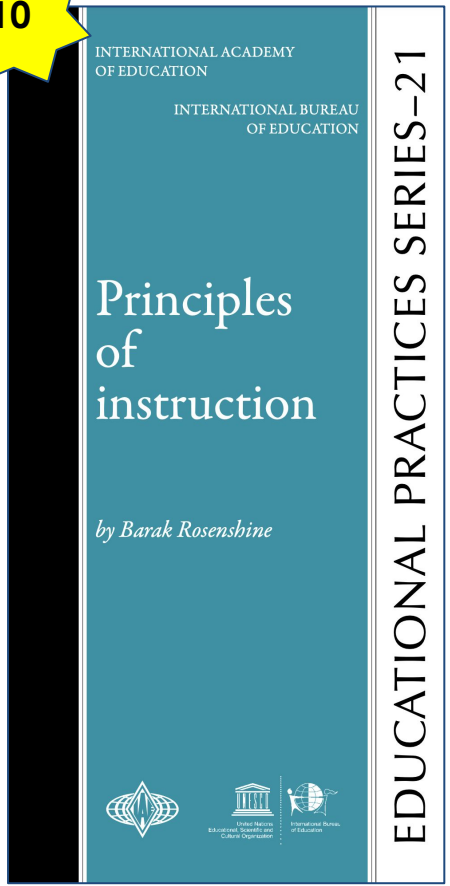
Education involves helping a novice develop strong, readily accessible background knowledge. It's important that background knowledge be readily accessible, and this occurs when knowledge is well rehearsed and tied to other knowledge. The most effective teachers ensured that their students efficiently acquired, rehearsed, and connected background knowledge by providing a good deal of instructional support. They provided this support by teaching new material in manageable amounts, modeling, guiding student practice, helping students when they made errors, and providing for sufficient practice and review. Many of these teachers also went on to experiential, hands-on activities, but they always did the experiential activities *after*, not before, the basic material was learned.

The following is a list of some of the instructional principles that have come from these three sources. These ideas will be described and discussed in this article:

- Begin a lesson with a short review of previous learning.[1]
- Present new material in small steps with student practice after each step.[2]
- Ask a large number of questions and check the responses of all students.[3]
- Provide models.[4]
- Guide student practice.[5]
- Check for student understanding.[6]
- Obtain a high success rate.[7]
- Provide scaffolds for difficult tasks.[8]
- Require and monitor independent practice.[9]
- Engage students in weekly and monthly review.[10]

bit.ly/Rosenshine12

10



bit.ly/Rosenshine10

6

DOCUMENT RESUME

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EDRS PRICE MF01/PC02 Plus Postage.
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ABSTRACT

Successful experimental programs, in which teachers have been trained to increase their students' academic achievement, were analyzed to identify common teacher functions. Six recent studies in which teachers implemented training and in which students had higher achievement were examined. Conclusions drawn from the analysis include: (1) Students taught with structured curricula do better than those taught with individualized or discovery learning approaches; and (2) Students who received their instruction directly from the teacher achieved more than those expected to learn new material or skills on their own or from each other. A list of specific teaching functions that promote learning was developed from this study: (1) daily reviewing, checking previous day's work, reteaching if necessary, and checking homework; (2) providing overviews in new content/skills, proceeding in small steps (but at a rapid pace if necessary), giving detailed or redundant instructions and explanations, and phasing in new skills while old skills are being mastered; (3) high frequency of questions and overt student practice, prompting during initial learning, and feedback allowing student response; (4) giving feedback and correctives, recyling instruction if necessary, and making corrections by simplifying questions, giving clues, explaining, and reviewing; (5) providing time for independent practice and seatwork until students are sure of material; and (6) providing weekly and monthly reviews and reteaching if necessary. (JD)

ERIC

bit.ly/Rosenshine82

Definition

"The most effective teachers do not overwhelm their pupils by presenting too much new material at once.

Instead, they intersperse explanations with directed questioning and multiple examples."

Prof. (Victor) Barak Rosenshine

- Born in Illinois (1930 - 2017)
- BA Psychology, University of Chicago; EdD Stanford University
- Professor of Education, University of Illinois

17 Principles of Instruction

1. Begin a lesson with a short review
2. Present new material in small steps
3. Limit the amount of material students receive at one time
4. Give clear and detailed instructions and explanations
5. Ask a large number of questions and check for understanding
6. Provide a high level of active practice for all students
7. Guide students as they begin to practice
8. Think aloud and model steps
9. Provide models of worked out problems
10. Ask students to explain what they have learned
11. Check the responses of all students
12. Provide systematic feedback and corrections
13. Use more time to provide explanations
14. Provide many examples
15. Re-teach material when necessary
16. Prepare students for independent practice
17. Monitor students when they begin independent practice

Consider no. 3, 7, 9 & 12

What do these look like in your subject?

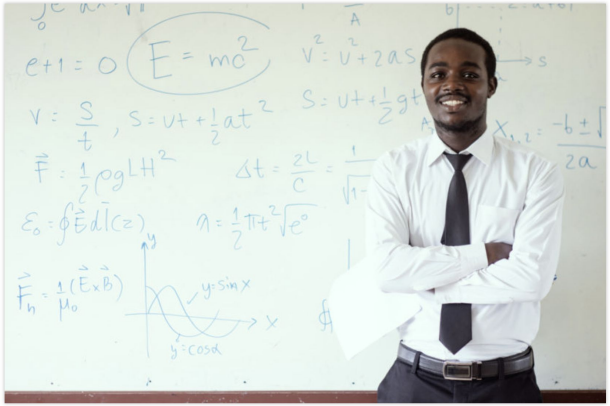
Evolution of thought ...

2015
2018

Rosenshine's 17 Principles of Effective Instruction

Reading time: 5

Bookmark ☆



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barack-rosenshine/

2021

The Origins of Rosenshine's Principles (1982–2017)

Reading time: 4

Bookmark ☆

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principles-1982-2012

2023

The Potential Pitfalls of Rosenshine's Principles

Reading time: 4

Bookmark ☆

teachertoolkit.co.uk/
2023/07/02/pitfalls-of-principles-
of-effective-instruction/

What does effective instruction look like in the classroom?

Watch:

(Internal link)

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17 Principles of Instruction

1. Begin a lesson with a short review
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3. Limit the amount of material students receive at one time
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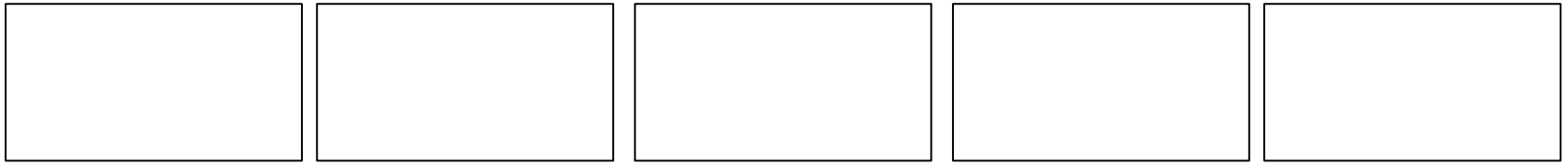
10 Principles



1 2 3 4 5

6 7 8 9 10

10 Principles

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1. Short Review

1

1. New material in small steps
2. Limit information

2

1. Clear instructions
2. Question/check understanding

3

1. Provide practice
2. Guide practice

4

1. Think aloud (model steps)
2. Worked example

5

1. Ask students to explain
2. Check responses

6

1. Systematic feedback

7

1. More explanations
2. Many examples

8

1. Reteach

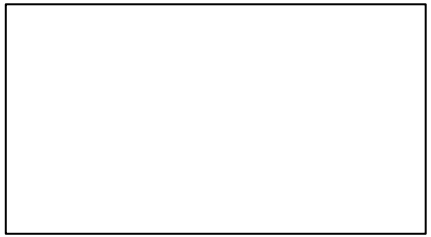
9

1. Prepare practice
2. Monitor practice

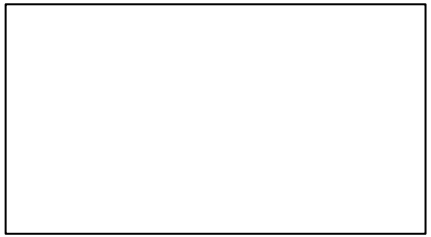
10

Inspired by Principles of Effective Instruction (Rosenshine 2012)

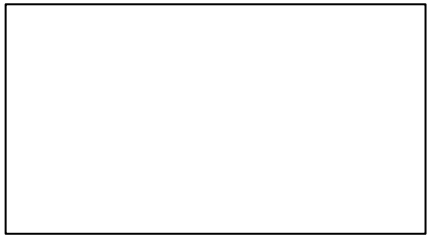
4 Principles



1



2



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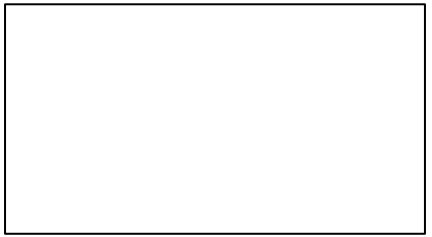


4

Explain

Question

Practice

Feedback

Inspired by Principles of Effective Instruction (Rosenshine 2012)

4 Principles

Explain

Short review
Present new material in steps
Be clear and precise

1

Question

Ask a range of questions
Regularly check

2

Practice

Provide + guide practice
Think aloud
Model worked examples

3

Feedback

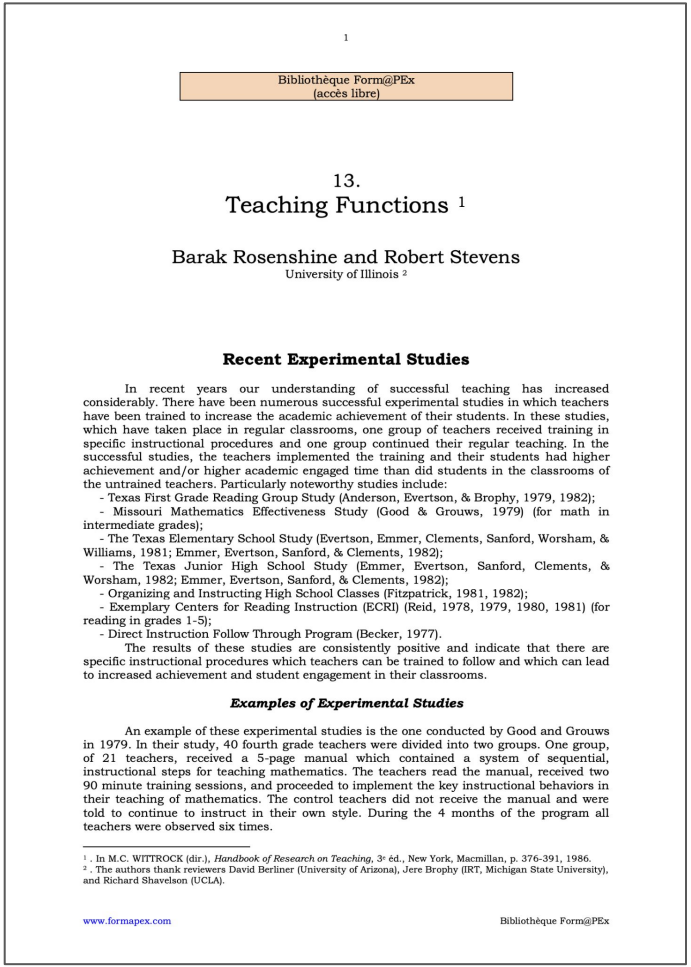
Diagnose the problem, offer feedback, elicit thinking and oversee the learning

4

Inspired by Principles of Effective Instruction (Rosenshine 2012)

Warning from Rosenshine ...

"It would be a mistake to claim that the teaching procedures which have emerged from this research apply to all subjects, and all learners, all the time."



13.
Teaching Functions [1]

Barak Rosenshine and Robert Stevens
University of Illinois [2]

Recent Experimental Studies

In recent years our understanding of successful teaching has increased considerably. There have been numerous successful experimental studies in which teachers have been trained to increase the academic achievement of their students. In these studies, which have taken place in regular classrooms, one group of teachers received training in specific instructional procedures and one group continued their regular teaching. In the successful studies, the teachers implemented the training and their students had higher achievement and/or higher academic engaged time than did students in the classrooms of the untrained teachers. Particularly noteworthy studies include:

- Texas First Grade Reading Group Study (Anderson, Evertson, & Brophy, 1979, 1982);
- Missouri Mathematics Effectiveness Study (Good & Grouws, 1979) (for math in intermediate grades);
- The Texas Elementary School Study (Evertson, Emmer, Clements, Sanford, Worsham, & Williams, 1981; Emmer, Evertson, Sanford, & Clements, 1982);
- The Texas Junior High School Study (Emmer, Evertson, Sanford, Clements, & Worsham, 1982; Emmer, Evertson, Sanford, & Clements, 1982);
- Organizing and Instructing High School Classes (Fitzpatrick, 1981, 1982);
- Exemplary Centers for Reading Instruction (ECRI) (Reid, 1978, 1979, 1980, 1981) (for reading in grades 1-5);
- Direct Instruction Follow Through Program (Becker, 1977).

The results of these studies are consistently positive and indicate that there are specific instructional procedures which teachers can be trained to follow and which can lead to increased achievement and student engagement in their classrooms.

Examples of Experimental Studies

An example of these experimental studies is the one conducted by Good and Grouws in 1979. In their study, 40 fourth grade teachers were divided into two groups. One group, of 21 teachers, received a 5-page manual which contained a system of sequential, instructional steps for teaching mathematics. The teachers read the manual, received two 90 minute training sessions, and proceeded to implement the key instructional behaviors in their teaching of mathematics. The control teachers did not receive the manual and were told to continue to instruct in their own style. During the 4 months of the program all teachers were observed six times.

---

[1] . In M.C. WITTROCK (dir.), *Handbook of Research on Teaching*, 3e éd., New York, Macmillan, p. 376-391, 1986.
[2] . The authors thank reviewers David Berliner (University of Arizona), Jere Brophy (IRT, Michigan State University), and Richard Shavelson (UCLA).

Teaching Functions (Rosenshine and Stevens, 1986)

A pause helps retention …

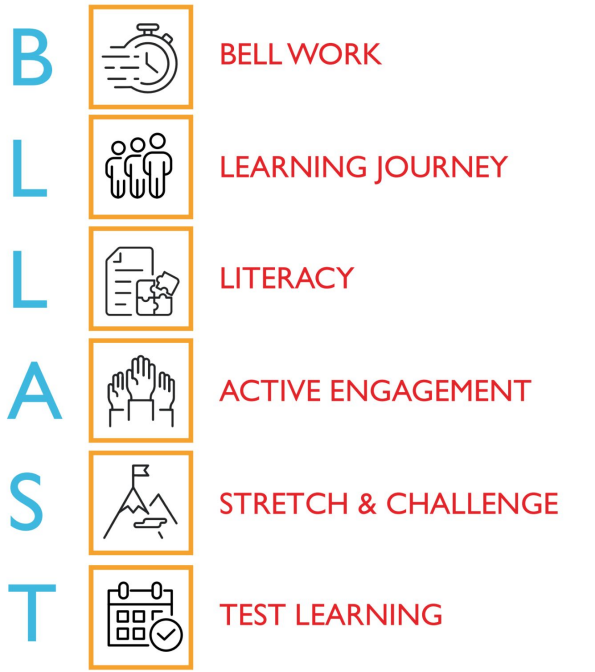
Translating research to Harlington

How do the Rosenshine principles align with your 'every lesson, every day' philosophy?

Identify which 17 principles align with BLLAST …

THE HARLINGTON WAY

EVERY LESSON, EVERY DAY



17 Principles of Instruction

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17. Monitor students when they begin independent practice

Explain

Question

Practice

Feedback

Inspired by Principles of Effective Instruction (Rosenshine 2012)

"A daily review is an important component of instruction.

It can help teachers strengthen the connections from the material to what students have learned."

Explanation – Question – **Practice** – Feedback

Last Month

Knowledge covered ...

Last Week

Common threads ...

Today

Clarify misconceptions; key questions ...

Last Lesson

Connected schema ...

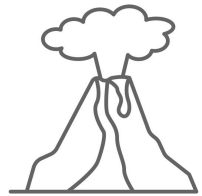
Retrieval Practice Resource

1. Last Month we…

We learned that Mount Vesuvius last erupted in 79AD. It is also near Naples and had 3,000 earthquakes prior to the April 2020 eruption.

2. Last Week we…

Common threads …
We know that the Icelandic volcano last erupted in 1823; draw and label the key areas of a volcano



3. Last Lesson you…

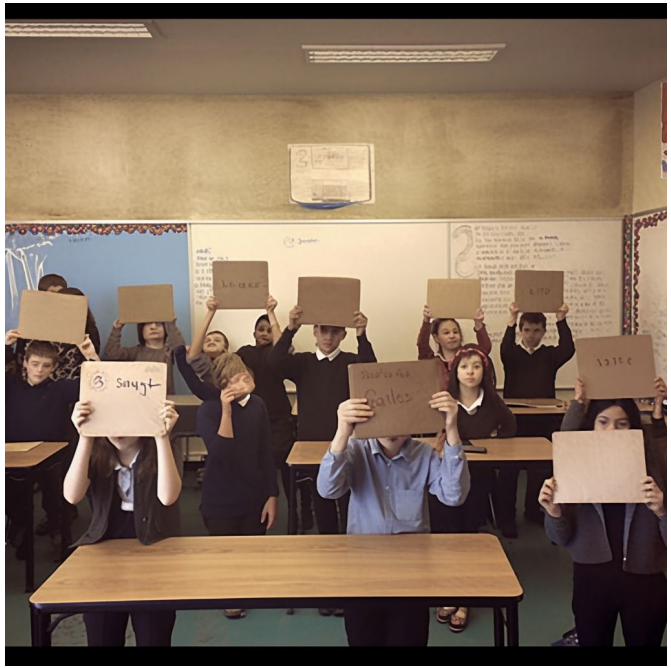
Key questions …
Last lesson we discovered that there is an ice-cap which covers 40 square miles.

4. Today you need…

Clarify misconceptions; quizzing …
(79 AD) If the plume of ash rose to 21 miles high, estimate what area the cloud covered.

Increasing In-class Participation and Consensus

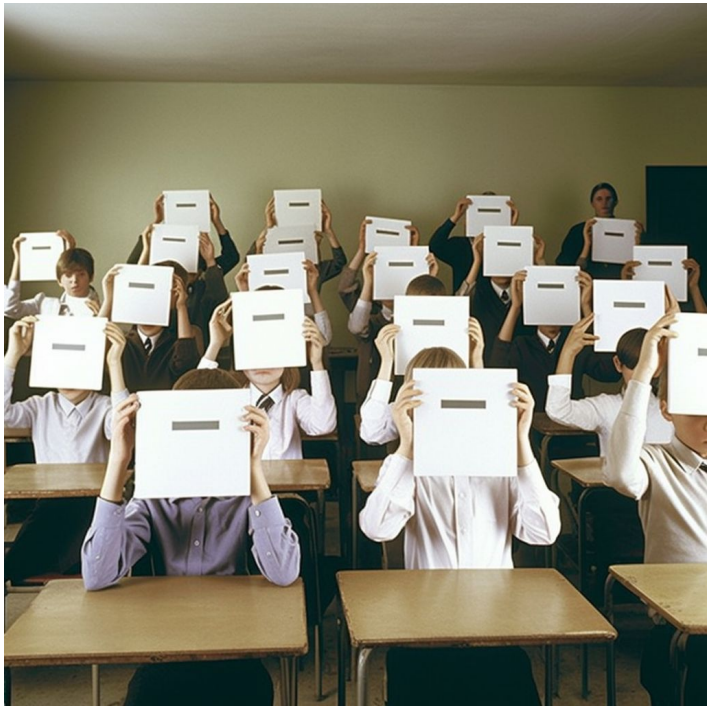
Hard to see responses



vs.

If you can encourage students to display their messages in sequences, or the exact same message or visual, this improves your chances of determining consensus.

More manageable



These images are artificially generated

Last Month

Last Week

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Mini Whiteboards Template

Printed as an acetate later over the whiteboard to help provide prompts to students - delete this box then print …

Last Lesson

My Question

One fact

One sentence

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Classroom Ideas, Teacher Training & School Resources

Mini Whiteboards Template

Printed as an acetate layer over the whiteboard to help provide prompts to students - delete this box then print …

One paragraph

One sketch

Explain

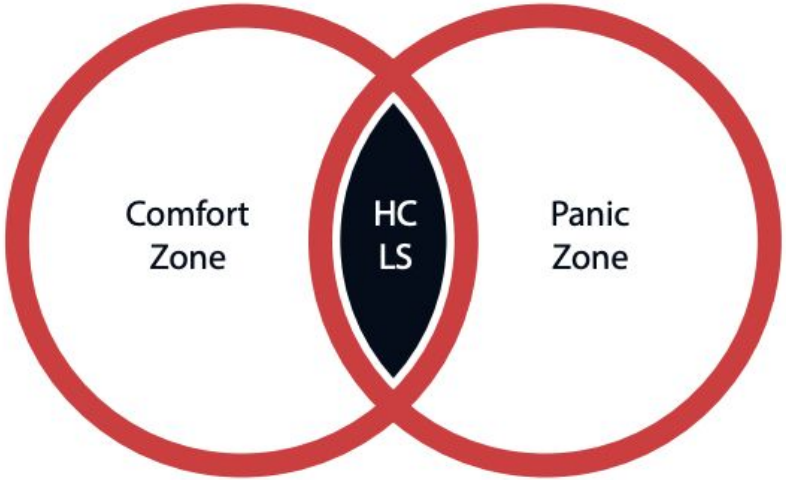
Question

Practice

Feedback

Inspired by Principles of Effective Instruction (Rosenshine 2012)

"Present new material in small steps…"




Cruiser bike


BMX


Folding bike


Kids bike


Utility bike


Mountain bike

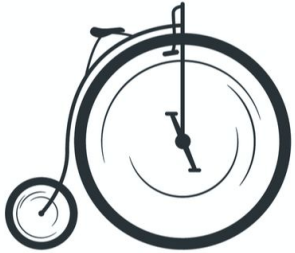

Recumbent bike


Road bike


Fixed gear


Touring bike


Fat bike


Old bicycle

Which bike would you ride?

Image: Shutterstock

1. Read this example text ➡️
2. Wait for further instruction...

A **bicycle**, also called a **cycle** or **bike**, is a human-powered, pedal-driven, single-track vehicle, having two wheels attached to a frame, one behind the other. The basic shape and configuration of a typical upright or "safety bicycle", has changed little since the first chain-driven model was developed around 1885.

The great majority of modern bicycles have a frame with upright seating that looks much like the first chain-driven bike. These upright bicycles almost always feature the *diamond frame*, a truss consisting of two triangles: the front triangle and the rear triangle. The front triangle consists of the head tube, top tube, down tube, and seat tube. The head tube contains the headset, the set of bearings that allows the fork to turn smoothly for steering and balance.

The top tube connects the head tube to the seat tube at the top, and the down tube connects the head tube to the bottom bracket. The rear triangle consists of the seat tube and paired chain stays and seat stays. The chain stays run parallel to the chain, connecting the bottom bracket to the rear dropout, where the axle for the rear wheel is held. The seat stays connect the top of the seat tube (at or near the same point as the top tube) to the rear fork ends.

Source: Wikipedia

Now draw a bike...

1. Look at this visual example ➡️
2. Wait for further instructions...

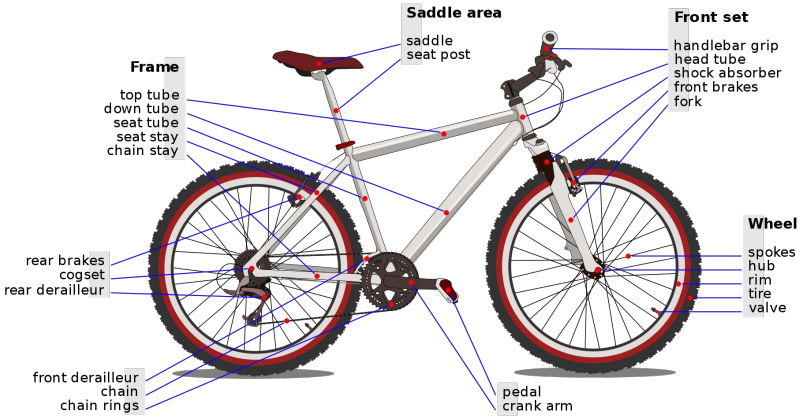
Basic bike parts

Source: Shutterstock

Now draw a bike...

The front triangle consists of the head tube, top tube, down tube, and seat tube. The head tube contains the headset, the set of bearings that allows the fork to turn smoothly for steering and balance.

The **top tube** connects the head tube to the seat tube at the top, and the **down tube** connects the **head tube** to the bottom bracket. The **rear triangle** consists of the **seat tube** and paired chain stays and seat stays. The chain stays run parallel to the chain, connecting the bottom bracket to the **rear dropout**, where the **axle** for the rear wheel is held. The seat stays connect the top of the seat tube (at or near the same point as the top tube) to the **rear fork** ends.



Source: Wikipedia

Bears enjoy eating honey.

Bears enjoy eating honey.

$$7 \times ? = 28$$

Explain

Question

Practice

Feedback

Inspired by Principles of Effective Instruction (Rosenshine 2012)

"Limit the amount of material students receive at one time…"

"Give clear and detailed instructions..."

1. **M** = Materials
2. **I** = In/out of seats
3. **N** = Noise level
4. **T** = Time

Image: Shutterstock

Out of your seats

Move to each display

I

N

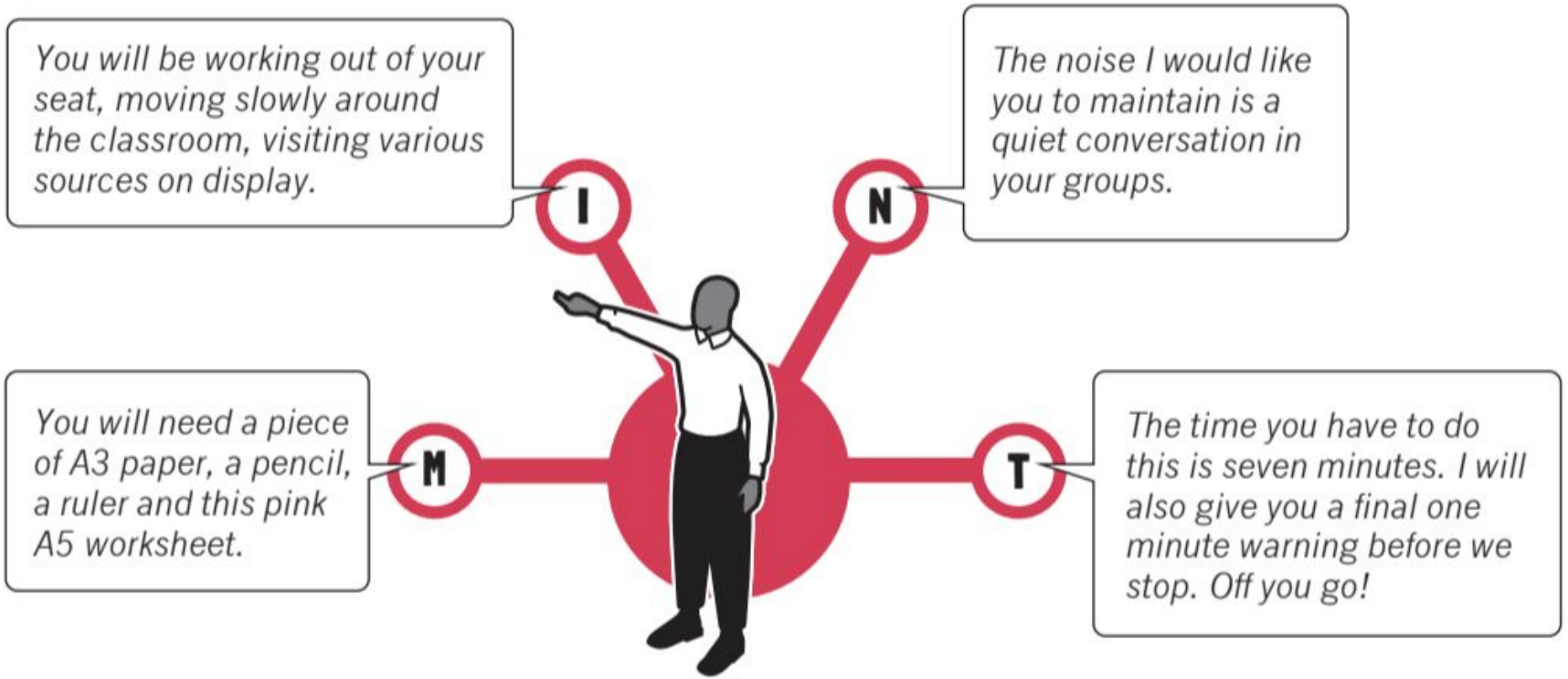
Quiet conversations

You need something to write with and take your worksheet

M

T

7 minutes; off you go!



Explain

Question

Practice

Feedback

Inspired by Principles of Effective Instruction (Rosenshine 2012)

"Ask a large number of questions and check for understanding…

Provide a high level of guided active practice for all students."

Explanation – Question – **Practice** – Feedback

	Is? / Does? **Present**	Has? / Did? / Was? **Past**	Can? **Possibility**	Should? **Opinion**	Would? / Could? **Probability**	Will? **Prediction**	Might? **Imagination**
What? **Event**							
Where? **Place**							
When? **Time**							
Which? **Choice**							
Who? **Person**							
Why? **Reason**							
How? **Meaning**							

The general level of difficulty of question increases… A "What is?" question is normally easier to create and answer than a "How might?" question.

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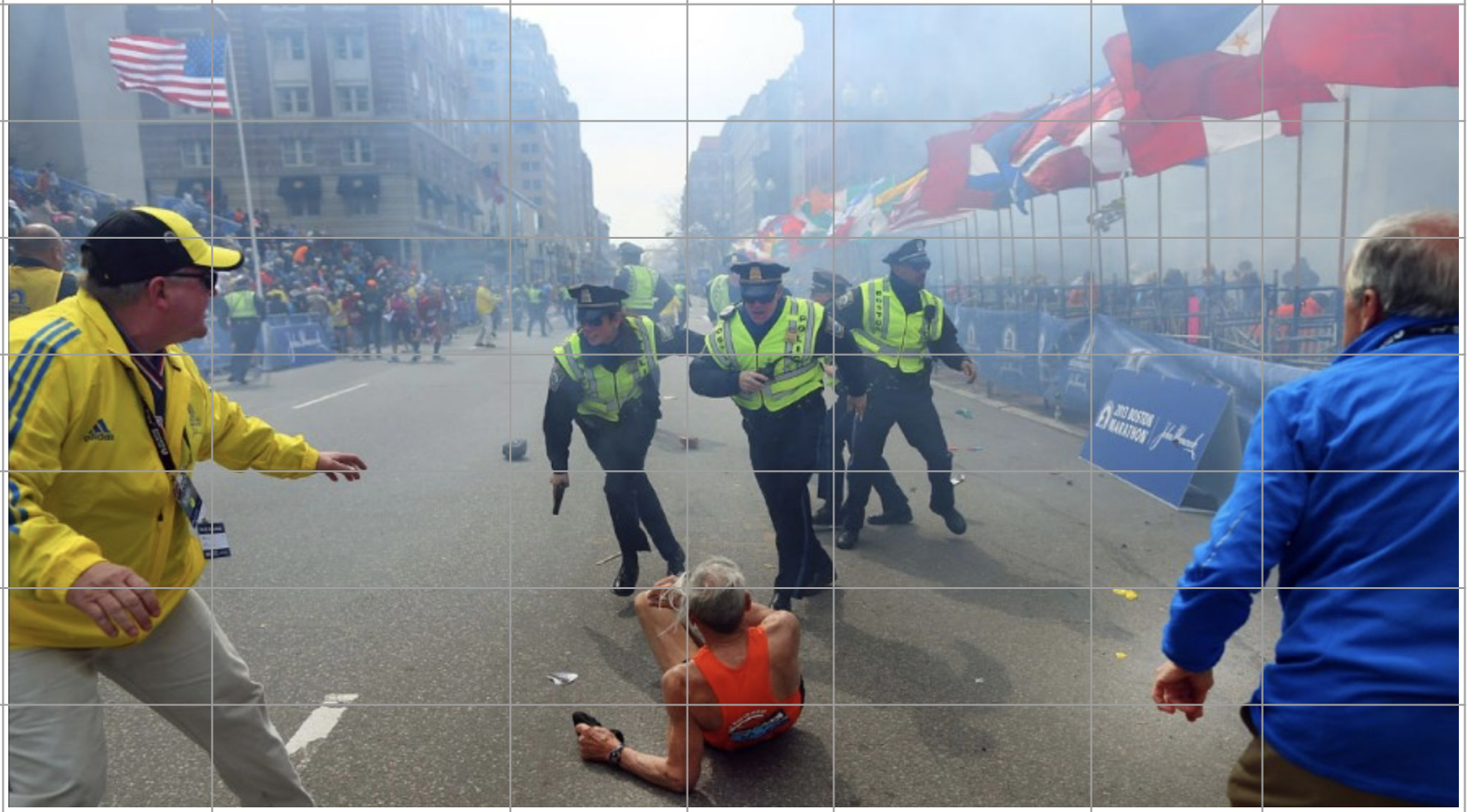
Image:
John Tlumacki

	Is? / Does? Present	Has? / Did? / Was? Past	Can? Possibility	Should? Opinion	Would? / Could? Probability	Will? Prediction	Might? Imagination
What? Event							
Where? Place							
When? Time							
Which? Choice							
Who? Person							
Why? Reason							
How? Meaning							

Explanation – Question – **Practice** – Feedback

	Is? / Does? **Present**	Has? / Did? / Was? **Past**	Can? **Possibility**	Should? **Opinion**	Would? / Could? **Probability**	Will? **Prediction**	Might? **Imagination**
What? Event					*Design a question here*		
Where? Place	*Design a question here*						
When? Time							*Design a question here*
Which? Choice			*Design a question here*				
Who? Person				*Design a question here*			
Why? Reason		*Design a question here*					
How? Meaning						*Design a question here*	

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Image:
John Tlumacki

	Is? / Does? **Present**	Has? / Did? / Was? **Past**	Can? **Possibility**	Should? **Opinion**	Would? / Could? **Probability**	Will? **Prediction**	Might? **Imagination**
What? Event							
Where? Place							
When? Time							
Which? Choice							
Who? Person							
Why? Reason							
How? Meaning							

Explain

Question

Practice

Feedback

Inspired by Principles of Effective Instruction (Rosenshine 2012)

"Ask students to explain what they learned...

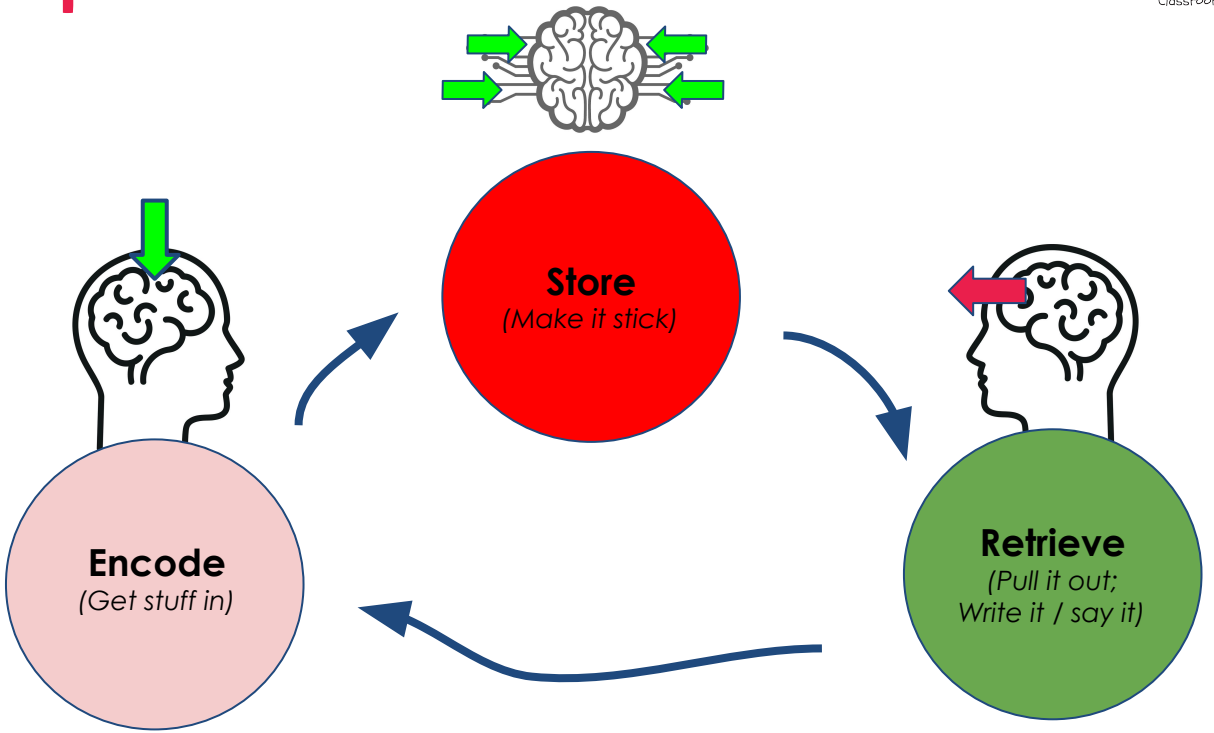
Check the responses of all... Provide systematic feedback and corrections.

Use more time for explanations and provide many examples."

1. Can you see learning?

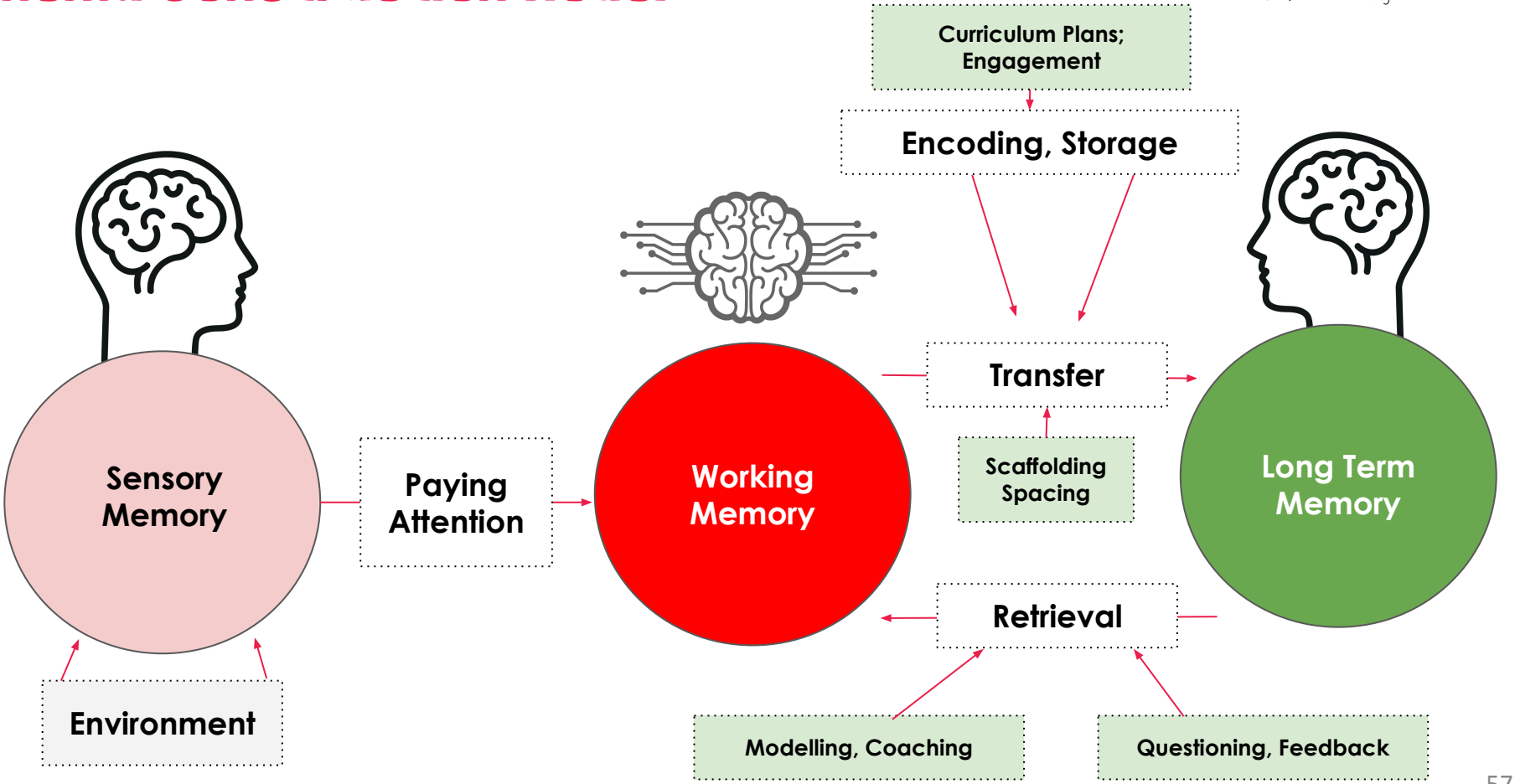
2. How does learning happen?

Curriculum Loop



Spaced Practice (week/month/term = retest, not reteach)

Schema Construction Model



Explain

Question

Practice

Feedback

Inspired by Principles of Effective Instruction (Rosenshine 2012)

"Re-teach material when necessary...

Prepare students for independent practice...

Monitor students when they begin independent practice."

Explanation – Question – **Practice** – Feedback

Praise

Clarify what good performance is

1

Probe

Facilitate self assessment

2

Identify

Deliver high quality feedback information

3

Plan

Encourage teacher and peer dialogue

4

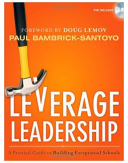
Lock

Encourage positive motivation and self-esteem

5

PPIPL

Leverage Leadership (Bambrick-Santoyo, 2012).



9 Effective Learning Techniques

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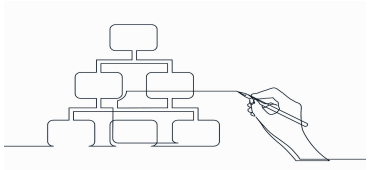
Elaboration
Being able to explain why

1

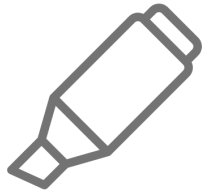
Self Explanation
Explain new information

2



Summarisation
Bitesize overview

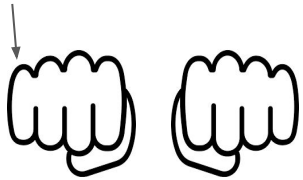
3



Highlighting
Whilst reading

4

January



Mnemonics
Keywords for mental imagery

5

Dual Coding
Mental imagery of text

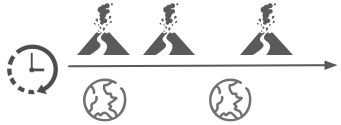
6

Rereading
Re-study material

7

Retrieval Practice
Low stakes assessment

8



Spaced + Interleaving
Scheduled and interwoven

9

Inspired by Connect The Dots (Taylor, 2019)

9 Effective Learning Techniques

	Technique	Efficacy/Impact	What is it?
1	**Retrieval Practice**	**High**	Low stakes quizzing; desirable difficulty
2	**Spaced + Interleaving**	**High**	Presenting scheduled and mixed content over time
3	**Elaboration**	**Medium**	Generating and being able to explain why
4	**Self-Explanation**	**Low**	Explaining new information
5	**Summarisation**	**Low**	Bitesize overview
6	**Highlighting**	**Low**	Marking potentially important information whilst reading
7	**Keyword mnemonics**	**Low**	Keywords for mental models/imagery
8	**Imagery for Text**	**Low**	Mental imagery for text (dual coding); pair text with images
9	**Rereading**	**Low**	Restudying text material
	All these strategies have an impact on learning. N.b. Spaced + Interleaving have been amalgamated for this resource; they are separate strategies and interleaving is sometimes known as 'distributed practice'.		

Inspired by (Table 1: Learning Techniques) 10.1177/1529100612453266 (Dunlosky et al (2013)

9 Effective Learning Techniques (Month by Month)

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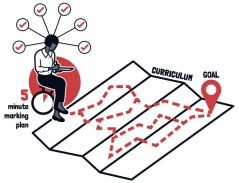
Month	September	October	November	December	January	February	March	April	May	June
Technique *What it's for*	**Highlighting** *Marking important text whilst reading*	**Highlighting** *Marking important text whilst reading*	**Highlighting** *Marking important text whilst reading*	**Highlighting** *Marking important text whilst reading*	**Highlighting** *Marking important text whilst reading*	**Highlighting** *Marking important text whilst reading*	**Highlighting** *Marking important text whilst reading*	**Highlighting** *Marking important text whilst reading*	**Highlighting** *Marking important text whilst reading*	**Highlighting** *Marking important text whilst reading*
Designed to be used as a guide for teachers, parents and tutors to be introduced to each technique month by month to support retention, study skills and toward end of year assessment. Each technique should be re positioned according to the curriculum and timeframe being used..		**Summarisation** *A bite size overview of what has been learnt*	**Summarisation** *A bite size overview of what has been learnt*	**Summarisation** *A bite size overview of what has been learnt*	**Summarisation** *A bite size overview of what has been learnt*	**Summarisation** *A bite size overview of what has been learnt*	**Summarisation** *A bite size overview of what has been learnt*	**Summarisation** *A bite size overview of what has been learnt*	**Summarisation** *A bite size overview of what has been learnt*	**Summarisation** *A bite size overview of what has been learnt*
			Self Explanation *Explaining new information*	**Self Explanation** *Explaining new information*	**Self Explanation** *Explaining new information*	**Self Explanation** *Explaining new information*	**Self Explanation** *Explaining new information*	**Self Explanation** *Explaining new information*	**Self Explanation** *Explaining new information*	**Self Explanation** *Explaining new information*
				Elaboration *Generating and Being able to explain why*	**Elaboration** *Generating and Being able to explain why*	**Elaboration** *Generating and Being able to explain why*	**Elaboration** *Generating and Being able to explain why*	**Elaboration** *Generating and Being able to explain why*	**Elaboration** *Generating and Being able to explain why*	**Elaboration** *Generating and Being able to explain why*
	Introduce one new technique each month				**Mnemonics** *Using keywords to support mental models*	**Mnemonics** *Using keywords to support mental models*	**Mnemonics** *Using keywords to support mental models*	**Mnemonics** *Using keywords to support mental models*	**Mnemonics** *Using keywords to support mental models*	**Mnemonics** *Using keywords to support mental models*
						Imagery for Text *Pairing text with images for mental models*	**Imagery for Text** *Pairing text with images for mental models*	**Imagery for Text** *Pairing text with images for mental models*	**Imagery for Text** *Pairing text with images for mental models*	**Imagery for Text** *Pairing text with images for mental models*
							Rereading *Restudying text material, but being tested more*	**Rereading** *Restudying text material, but being tested more*	**Rereading** *Restudying text material, but being tested more*	**Rereading** *Restudying text material, but being tested more*
	Space/ Interleaving *Scheduling past content and mixed material*	**Space/ Interleaving** *Scheduling past content and mixed material*	**Space/ Interleaving** *Scheduling past content and mixed material*	**Space/ Interleaving** *Scheduling past content and mixed material*	**Space/ Interleaving** *Scheduling past content and mixed material*	**Space/ Interleaving** *Scheduling past content and mixed material*	**Space/ Interleaving** *Scheduling past content and mixed material*	**Space/ Interleaving** *Scheduling past content and mixed material*	**Space/ Interleaving** *Scheduling past content and mixed material*	**Space/ Interleaving** *Scheduling past content and mixed material*
	Retrieval Practice *Low stakes assessment which is desirably difficult*	**Retrieval Practice** *Low stakes assessment which is desirably difficult*	**Retrieval Practice** *Low stakes assessment which is desirably difficult*	**Retrieval Practice** *Low stakes assessment which is desirably difficult*	**Retrieval Practice** *Low stakes assessment which is desirably difficult*	**Retrieval Practice** *Low stakes assessment which is desirably difficult*	**Retrieval Practice** *Low stakes assessment which is desirably difficult*	**Retrieval Practice** *Low stakes assessment which is desirably difficult*	**Retrieval Practice** *Low stakes assessment which is desirably difficult*	**Retrieval Practice** *Low stakes assessment which is desirably difficult*

Inspired by (Table 1: Learning Techniques) 10.1177/1529100612453266 (Dunlosky et al (2013)

RESOURCES TO HELP

MARK PLAN TEACH 2.0

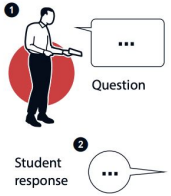


Secure Overview
Start and end points

1

Not Yet
To motivate students

2



Live Marking
Formative assessment

3

Marking Code
To reduce workload

4

Celebrate Mistakes
To build confidence

5

Mind The Gaps
Identity and intervene

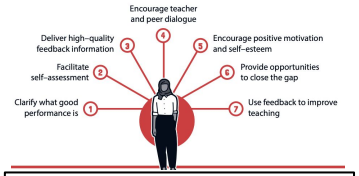
6

Find and Fix
Developing self-regulation

7

Fishing Without The Bait
Reliable work moderation

8



Smarter Not Harder
Effective Feedback Loop

9

Verbal Feedback Is Good Enough
Timely and motivational

10

MARK PLAN TEACH 2.0

A
Cognitive Process
Planning coherence

1

The
'Why?' Test
Ask 'Why?' not 'What?'

2

I'm a
Storyteller
Brining curriculum intent to life

3

Stickability!
Make learning stick, from curriculum to lesson plan

4

The
Struggle Zone
Comfort versus panic

5

A
Flying Start
Supporting literacy

6

Quality
First Teaching
Scaffolding conversations

7

Inspiration
Stockpiling CPD ideas

8

All
Change Please!
Developing behaviour scripts

9

Reality
Check
Prioritising teacher wellbeing

10

MARK PLAN TEACH 2.0

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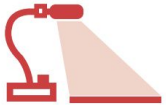
Direct Instruction
Be clear and precise

1



Modelling
Effective teaching requires regular modelling...

2

The Flow
From apathy towards immersion

3

What Every Teacher Should Know
Cognitive load and working memory

4

Incisive Observations
Effective questioning that assesses the learning

5

Ubermensch
The 7 traits of effective teachers

6

17 Principles of Effective Instruction
Where best to put your efforts

7

Third Degree Observations
Reliable lesson evaluation

8

Invisible Collaboration
Inclusive classroom environments

9

What Improves Teachers?
Coaching conversations

10

Sketchnotes

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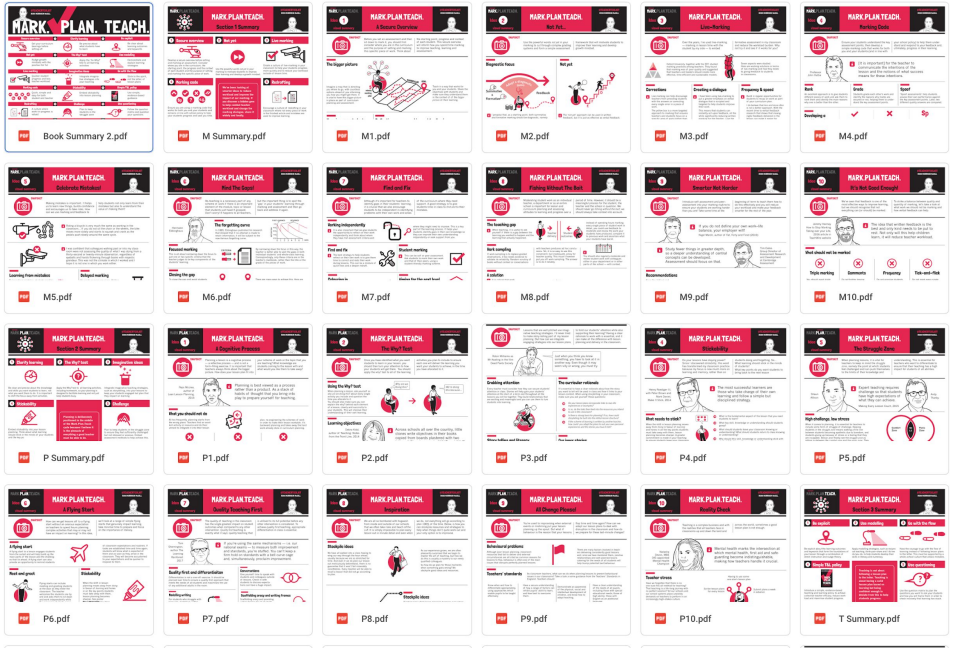
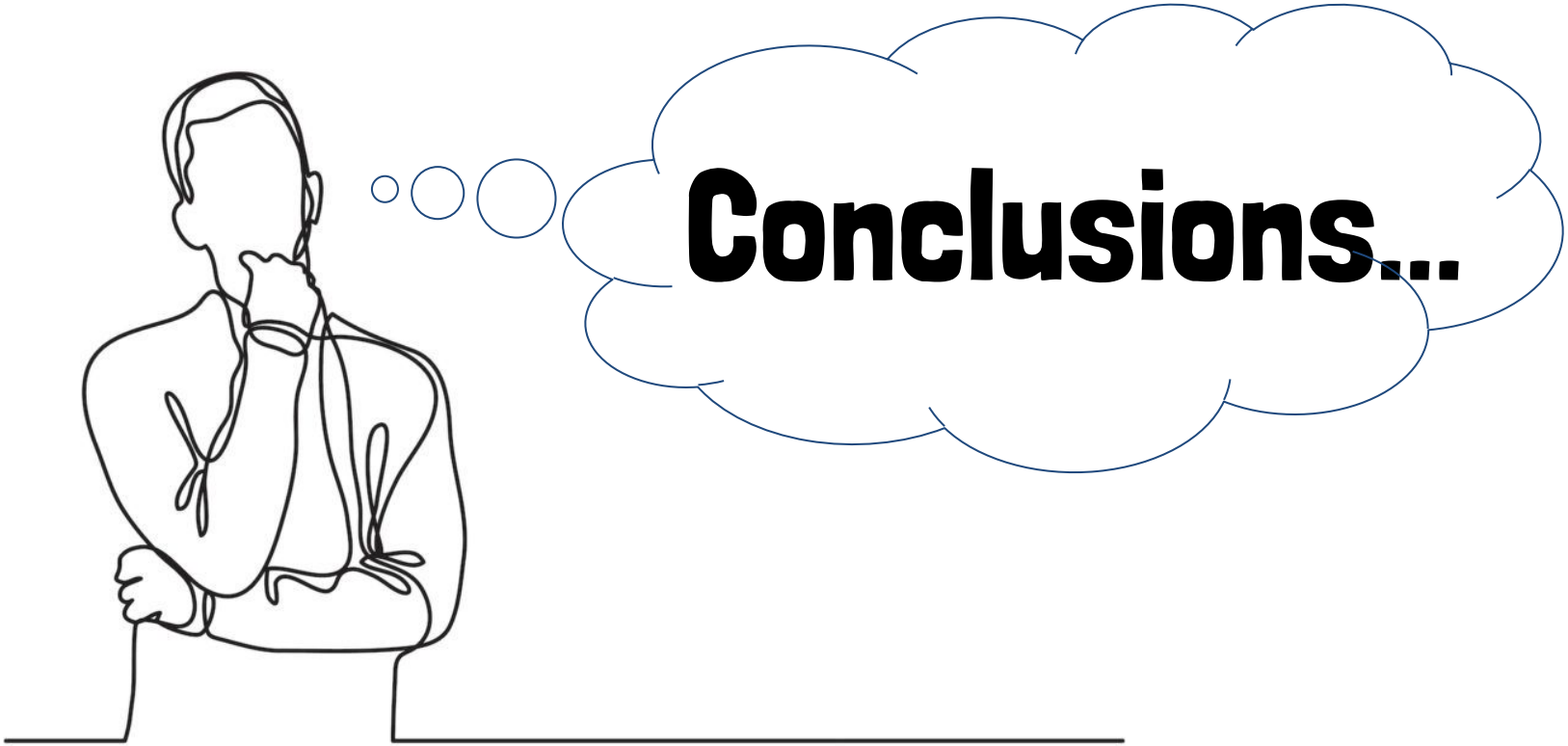


bit.ly/MPTcartoons



Warnings

1. It's not a checklist
2. It will make your classroom more manageable
3. You won't observe all 17 in a one-off lesson…
4. Nuance is required (E.g. EYFS, schools, SEND…)
5. Evaluating each requires in-depth triangulation.

17 Principles of Instruction

1. Begin a lesson with a short review
2. Present new material in small steps
3. Limit the amount of material students receive at one time
4. Give clear and detailed instructions and explanations
5. Ask a large number of questions and check for understanding
6. Provide a high level of active practice for all students
7. Guide students as they begin to practice
8. Think aloud and model steps
9. Provide models of worked out problems
10. Ask students to explain what they learned
11. Check the responses of all students
12. Provide systematic feedback and corrections
13. Use more time to provide explanations
14. Provide many examples
15. Re-teach material when necessary
16. Prepare students for independent practice
17. Monitor students when they begin independent practice.

Key Stage 1 suggestion

Principle	General recommendations	Maths	Physical education	Design and Technology
1. **Daily review**	Start each lesson with a brief review using songs, rhymes, or interactive activities	Use number songs or counting games	Recap previously learned skills through fun warm-up activities	Discuss previous projects and learnings
2. **Presenting new material**	Use visual aids, story-telling, and hands-on activities to introduce new concepts	Introduce new concepts with concrete objects	Demonstrate new skills clearly and break them down into steps	Show examples of new techniques or materials
3. **Check for understanding**	Use simple, clear questions and encourage physical responses (e.g., thumbs up/down	Use manipulatives and games for practice	Use stations or circuits for repeated practice	Allow exploration of materials before starting projects
4. **Guided practice**	Engage students with interactive and hands-on activities	Incorporate engaging games and activities	Provide immediate and positive feedback during activities	Offer constructive feedback during the creation process.

Key Stage 4 suggestion

Principle	General recommendations	Maths	Physical education	Design and Technology
1. **Daily review**	Use quick quizzes or discussion prompts to recall previous lessons	Start with a problem-solving activity.	Review previously learned techniques through skill drills	Reflect on past projects and discuss improvements
2. **Presenting new material**	Provide clear, concise explanations followed by detailed examples and guided practice	Introduce new topics with worked examples and guides	Introduce new sports or techniques through demonstration	Introduce complex techniques through multimedia presentations and hands-on demonstrations
3. **Check for understanding**	Use a variety of question types to ensure depth of understanding	Provide a mix of individual and group tasks	Incorporate skill development sessions followed by games	Encourage iterative design processes for refinement
4. **Guided practice**	Engage students with focused practice and provide specific feedback.	Use formative assessments for feedback	Offer detailed feedback focusing on technique and performance	Provide detailed, formative feedback throughout the design process

Curriculum Overview

Principle	General recommendations	Maths	Physical education	Design and Technology
1. Daily review				
2. Presenting new material				
3. Check for understanding				
4. Guided practice				

10 Principles

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1. Short Review

1

1. New material in small steps
2. Limit information

2

1. Clear instructions
2. Question/check understanding

3

1. Provide practice
2. Guide practice

4

1. Think aloud (model steps)
2. Worked example

5

1. Ask students to explain
2. Check responses

6

1. Systematic feedback

7

1. More explanations
2. Many examples

8

1. Reteach

9

1. Prepare practice
2. Monitor practice

10

Inspired by Principles of Effective Instruction (Rosenshine 2012)

Explain

Question

Practice

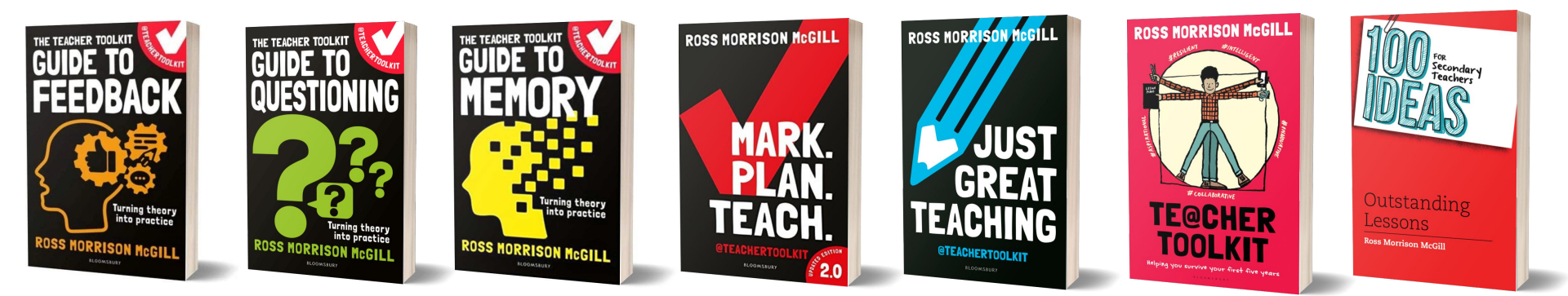
Feedback

Inspired by Principles of Effective Instruction (Rosenshine 2012)

- 1,200+ teachers
- Daily CPD video
- Research focus
- No chats / Ads

SCAN ME!

Tuesdays & Thursdays, 7PM, term time only



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