365 THINGS TO MAKE YOU GO



A year's worth of class thinking

sparky teaching



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Now that you've opened the book you are instantly faced with a decision – where do you go next?

If you are a teacher, turn to page 8.

If you are a parent, we hope you enjoy going through these with your child.

Turn to page 8, ignoring any jargon you come across along the way,
or just go directly to page 23.

If you are a young person, feel free to skip the next few pages. For best results, find someone else to discuss your ideas with and see what they think about each question — it makes things a lot more interesting.

Dive straight into page 23.

If you're the sort of person who reads the last page of the story first, here's a spoiler: most of the questions here haven't got a specific answer, but for those that do we've put a few on page 165.

If you don't read small print, go straight to 365 THINGS TO MAKE YOU GO HMMM on page 23.

INTRODUCTION

Apparently, Hull City is the only team in the football league whose name contains no letters you can colour in (unless you're in Year 7, in which case you'll see an immediate opportunity in the sixth letter).

Fascinating as that fact is, this book doesn't provide you with a year's worth of similarly useless-but-strangely-captivating trivia or general knowledge questions. Hopefully, 365 Things To Make You Go Hmmm ... is slightly more than that. This is a collection of thought-provoking questions, activities and ideas chosen carefully to help you do four things:

- Nurture a questioning culture in class. Or, more accurately, a questioning culture amongst your students in your classroom.
- 2. Encourage openness.
- 3. Develop your relationship with your class/child.
- 4. Encourage a range of skills, including:
 - a. problem-solving
 - b. mathematical thinking
 - c. logical thinking
 - d. literacy skills
 - e. creative thinking
 - f. personal and inter-personal skills
 - g. a sense of awe and wonder about the world

In short, this book tries to tread a line between interesting and important.

¹ There's no truth in the rumour that the reason Assem Allam (current Hull City owner) wants to change their name to Hull Tigers is because it would bring the letters 'g' and 'e' to the table.



If you are a teacher, the idea is that you carve out a minimum of five minutes every day with the sole aim of discussing that particular day's question. This could be during registration, at the end of the day or during snatched moments with your class.

Of course, you might want to use them more specifically. Some would serve well as lesson starters (#083), plenaries (#074) or mid-lesson activities to introduce a change of pace. Others deserve more time, so could be worked into a main lesson. You might decide #009 merits an entire maths lesson, #025 would make a great English session or a full Circle Time should be devoted to reflecting on #306. To help you with all of this, some of the questions have been indexed into categories on page 177.

A CASE STUDY

Worth mentioning is the way that Eirian Painter introduced and now uses this with the children at Liberty Primary School in Merton, London. It's an excellent model if you're looking for a way to embed these sorts of questions across your whole school.

Each week, one question is decided on and then announced to the school during assembly. Every classroom then has a poster of the 'Hmmm', as well as one on the school's 'Challenge of the Week' display board.

During the week, specific time is allocated for pupils to respond to the question. They do so by writing their response or answer on colour-coded paper (one each for Early Years, KS1 and KS2) and posting it into the 'Challenge Box' attached to the main display.

The challenge is discussed during Friday's whole-school celebration assembly and one answer from each phase is read out as the winner.

Each week's challenge (and all its responses) is finally filed in a cabinet beneath the Challenge display and the school is steadily building up a powerful library of evidence of the way that children think across the age ranges.



Using weekly challenges in this way has encouraged our students to think things through more, rather than accepting a common answer. It's a really useful way for them to deepen their knowledge and understanding of the world.

Eirian Painter, Deputy Head Teacher, Liberty Primary School, Merton

With their challenge, Liberty have developed the idea to serve the whole school. If only we'd thought of it, this would have been a lot quicker to write – 52 questions would have made a thinner book!

Although we've done our best to make this book as aesthetically pleasing as possible, its real worth doesn't lie in the questions themselves. It's your follow-up questions and the ensuing discussion that will make all the difference. This is a working document.

So, with this in mind, we'd like you to do something. Turn to page 182 and write down a quote you've heard recently that makes you think.

Come back when you've finished ...

Like the best lesson plans, evaluations and Individual Education Plans, this book is much more useful if you view it as a work-in-progress. Please write in it. Highlight sections. Jot down how you've used follow-up questions to develop ideas. Note down inspiring quotes, new stories or website links. Let it become a journal – a home for your Hmmms.

365 IS JUST THE BEGINNING.



THE LIFE CYCLE OF A HMMM-ING BIRD



Spring 2008 – The egg of an idea

365 Things started life as a classroom display. It featured enlarged photos of the heads of students with thought bubbles above each one. They then wrote the questions that were concerning/interesting them at that point in time. 'I know what you should call it,' said one student on their way out to lunch. 'Things that make us go "Hmmm".' And so it began.



June 2009 - Sparky Teaching hatched

Sparky Teaching was created as a home on the web for teachers, parents and students who cared about creative teaching, creative learning and what we believed was the important stuff. Wherever you are in the world, many of the issues teachers face are the same. How can we find opportunities to emphasise character-based values when faced with an increasingly content-heavy curriculum? Is creativity being crowded out of the school day? Through slightly left field — but nonetheless incredibly important — resources, we tried to meet the needs of creatively-minded teachers and parents who didn't mind doing things slightly differently in order to get learning to stick.





September 2009 – **365 Things flew solo**

We started posting one big question every day to get students thinking and sharing their answers. Over the next few years, popularity steadily grew and we did our best to make the content as engaging as possible. To keep things fresh, we deleted the questions and started from #001 again at the end of each year. Every day a new question is still posted at http://sparkyteaching.com/resources/thinkingskills/hmmm.php and tweeted using the hashtag #HmmmsTheWord.



March 2013 - Some tweeting

After several tweets, emails and meetings with Ian Gilbert and Independent Thinking Press, it was decided that 365 Things To Make You Go Hmmm ... might work well on paper as well as pixels.

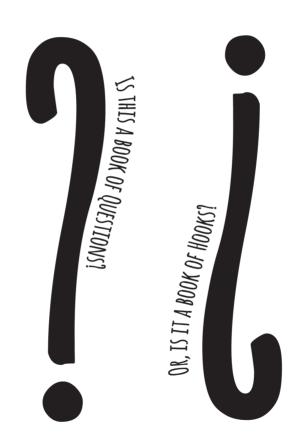


June 2014 – The final migration

And so here we are. From classroom display, to website, to book. It's been our intention to come up with something that is more intriguing and Hmmm-inducing than the website. Hopefully we've succeeded.



QUESTION QUESTIONS





How many questions get asked in your classroom every day?

In 1912, Stevens stated that approximately eighty percent of a teacher's school day was spent asking questions to students. More contemporary research on teacher questioning behaviors and patterns indicate that this has not changed. Teachers today ask between 300-400 questions each day (Leven and Long, 1981).

Research by Littlewoods² found that children ask their mothers between 140 and 390 questions a day, depending on their age and gender.

Of course, you didn't need that data to know the following:

- Young people are innately curious.
- As teachers, we have a tendency to ask too many questions (many of which can be wasted – closed, rhetorical, misdirected or orders disguised as questions).
- If every member of our class asked questions at mother-rate, we'd be in trouble.
- Children tend to open up more (and therefore ask more questions) when they're on their own or in smaller groups.

Who asks the most questions in your classroom?

How can we redress the balance of question power?

What opportunities can we give to our students to ask their own questions?

How can we ensure that those questions arise naturally, out of curiosity?

^{2 &}lt;a href="http://www.telegraph.co.uk/news/uknews/9959026/Mothers-asked-nearly-300-questions-a-day-studyfinds.html">http://www.telegraph.co.uk/news/uknews/9959026/Mothers-asked-nearly-300-questions-a-day-studyfinds.html.



¹ Brualdi Timmins, Amy C. (1998). Classroom Questions. Practical Assessment, Research & Evaluation, 6(6).

Picture yourself planning for a lesson that's going to be observed. It is easy sometimes to almost decide the questions you want your students to ask beforehand. 'I need them to ask this. And this.' As someone once said, 'I adore spontaneity. Providing it's carefully planned.'

Perhaps if our lesson plans had a blank section for recording great questions that cropped up, it would show that, although we'd given it some thought, we didn't have a definite line of enquiry we wanted students to go down. Instead, we could look forward to seeing what gems they came up with. Obviously, many classes need a little pointer or five, but don't make this your default setting.

That sort of attitude would be really conducive to learning (and surely more impressive to anyone who had the good fortune to observe such a flexible practitioner in action).

How can we ensure that the questions our students ask are high-level ones? Should we be modelling good questioning techniques?

Spray questions around because some of them will hit the mark or limit yourself with a more direct, but risky, approach?

Can we think of them as arrows? We step up to the mark with a limited number in our quiver and each question we use cannot be wasted. They have to be insightful and precise.

When was the last time you stood in front of your class and started a sentence with, 'What would happen if ... ' and you didn't know the answer already?

There's an argument for us to be more genuine in our use of questions – more open about our own lack of knowledge. Despite the government's best intentions, teaching is becoming less about standing at the front and telling a class what to know and more about standing next to them, facilitating their own independent learning.



Which reveals ignorance more: 'I don't know' or 'I've never thought about that'?

I WANT TEACHERS TO WONDER OUT LOUD - TO ASK QUESTIONS THAT THEY DO NOT PERHAPS KNOW THE ANSWER TO.



WONDER, WONDER AND WANDER

A TO DO LIST

WOW!	WONDER MORE.	
	WONDER MORE.	
	WANDER MORE.	

Three words. Two sounds. One letter difference. And they adeptly sum up something very special about the best classrooms. The most investigative, stimulating classrooms are those that are awe-inspiring, encourage young people to question the world and are not afraid to meander off the beaten lesson plan if it's worth doing so.



The combination of allowing yourself to be amazed by the world and asking questions about it should lead to opportunities to digress productively from your planned outcomes. The key word in that sentence is *productively*. Allowing yourself to be led off on a tangent isn't a great character trait to have as a teacher. Controlling that tangent is better.

We can create learning that places the child at the centre of the action where much of what happens can emerge through a supportive classroom climate, clever questioning and irresistible lures.

 $\ \, \text{Hywel Roberts, } \textit{Oops! Helping children learn accidentally} \, (\text{Independent Thinking Press, 2012}) \\$



TEACH WHAT COUNTS

What matters in your classroom?

It's easy to answer that question with all sorts of worthy answers about the things that count to you or the things that you know should count.

But what if your students were consulted? What would they say if they were asked, 'What matters most to your teacher? What do they talk about most? What messages do they send out?' It might not be what you'd hope.

WE'VE GOT IS WEEKS UNTIL SATS.

YEAR 6 PUPIL
Overheard during first week of January 2014

Given that very few 11-year-olds have calendars where they're excitedly crossing off the days until their end-of-year tests, it's probably safe to say that the above quote originated from their teacher (or, more accurately, from an education system that piles pressure onto schools to achieve certain SATs results).

15 weeks is more than a quarter of a year. What sort of message are we giving our students when we greet them back after Christmas with a 105-day countdown?

Something like this?

'What matters in this classroom is the level you get in your SATs because for the majority of your final year here – when you're at the peak of your time at primary school – you'll be keeping half an eye on a couple of hours in May.'



And yet we've all done it. It's incredibly easy to fall into this trap – spending more time at parents' evenings talking about the test scores than the child, starting the term referring to the exams that are coming at the end of it and sending out the message: 'In this classroom what you achieve is more important than who you are.'

Is it, though?

NOT EVERYTHING THAT CAN BE COUNTED COUNTS AND NOT EVERYTHING THAT COUNTS CAN BE COUNTED.

Whoever came up with the above aphorism, it's a precise one and it's a good one. The big things in life are generally difficult to evaluate. How do you put a percentage on happiness or a value on family?

It takes a brave teacher to tell their students this, though.

Last year, in amongst the encouraging tweets and comments to A level students on results day, one sentence stood out. At first it seemed blunt and unsympathetic, but on a second look it was so true. It went something like this:

'Whether you've got all A grades or failed the lot, don't listen when people say it doesn't matter. It does.'

It took a double take to realise that the author wasn't heartless at all and to understand what he was getting at: what matters is how you react to what you get. Where do you go from here? How resilient are you when faced with failure?

¹ Apparently not Einstein – who, as is often the case, has been given the dubious pleasure of being cited as its creator.



Surely, we have two roles: academic and pastoral. The first is to raise academic achievement; the second is to develop character, embed important values for life and build self-esteem. The first can be counted, but it's hard to give a value to the second.

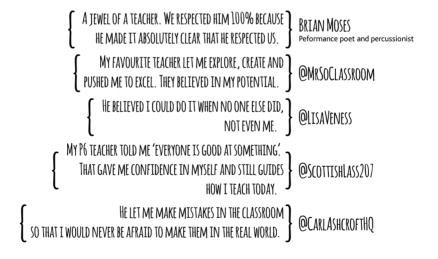
The first is reflected in a league table or a graph. The second is reflected in the decisions your students will go on to make.

Success with the first will make us feel like we've won on results day. We may never know how much we've succeeded with the second. Are you okay with that?

Arguably, though, the second will stand our students in better stead for life than the first.

Why was your favourite teacher ever your favourite teacher ever?

As a little experiment, we recently put this question out as a not-so-random straw poll. Here were some of the answers ...





These are interesting in two ways. Firstly, they are evidence that the things people appreciate years later about their teachers are often character-related. Building self-esteem, taking an interest, showing belief — these things last. Secondly, try reading them as a checklist for what makes a great teacher. Are you that kind of person? Teaching isn't a popularity contest, but we would argue that the things that count most in your classroom should be things that still count most years later.

These aren't twenty-first-century skills. People in the first century had to be resilient, creative, flexible and so on. And try to avoid the term 'soft skills' too ...

I'm beginning to think that 'soft skills' is a complete misnomer. What exactly is 'soft' about being able to demonstrate resilience, leadership, integrity, confidence, independent thinking and compassion? What is 'soft' about having the skill to communicate, to keep actively learning and adapting to the world around you?

Hilary French, President of Girls' Schools Association, from the President's Address at the GSA Conference, 2013

To extend this idea, the skills involved in developing character now are exactly the same skills that Abraham Lincoln needed to become president or Nelson Mandela needed to forgive his captors and unite a country. When Nelson Mandela passed away, it was noticeable that the majority of tweets spoke of characteristics that sound fairly ordinary (gentleness, graciousness) rather than his extraordinary achievements.

Whether you teach youngsters in a New York kindergarten or history students in a Lancashire secondary school, try and take the time to build these skills into your lessons. Character matters.





NOTICE THINGS

When asked what he does for a living, Seth Godin, the US author, public speaker and entrepreneur, often says, 'I notice things.'

Should you be looking for a class motto for the next 365 days, we'd argue that this is actually quite a robust one ...

WE NOTICE THINGS

Think about those three words for a second. Stick them on your door and they inform visitors (and your students as they enter it every day) that your classroom is all about finding new information, investigating, pattern-spotting, asking questions, appreciating the world, a sense of wonder, looking for answers and (if you think in terms of noticing each other's feelings) empathy. Mathematical thinking is covered by investigating ideas, noticing patterns and looking for rules we can attribute to them. A 'noticing' classroom is a creative one too, identifying ways to think about and do things differently.

As for you, as teacher, these three words might imply that you try to plan open-ended lessons where students ask the questions and investigate for themselves. And if the lesson takes a slight detour in subject matter, then you're confident enough to recognise value when it's there and go with it. Why? Because your students don't just notice things between 10.00 and 10.25 on Tuesdays. Intrigue and wonder can strike at any moment and generally don't obey the rules of last night's lesson plan.

¹ If you're not convinced by the need to have a class motto, have a read of Stephen Lockyer's blog: https://www.classroomtm.co.uk/branding-your-classroom/. Branding your classroom isn't a fun little primary school activity (although it is fun and would work brilliantly at primary school level). It's about giving your students that feeling of togetherness and that they're part of a team, giving them a desire to work together for its aims.



'We notice things' says, 'We're intrigued. We're curious. We question. We take an interest. We discover, observe and detect. Apathy is not what we're about.'

We're sure Mr Godin wouldn't mind you appropriating the concept for your classroom door ...



If he asks, just say you noticed it somewhere.



THINK ON ...

We're differentiating our teaching more and more at the same time as standardising tests more and more. Are the two things compatible?

What is it about your teaching that you wish inspectors could see, but they never do?

You're being observed tomorrow. Do you plan backwards from a checklist of what makes an outstanding lesson or forwards from a checklist of how your students will learn best? Or are the two the same?

If everyone was graded outstanding, would it make sense?

Are terms like 'thinking skills', 'values' and 'big questions' wishy-washy, unquantifiable nonsense?

'We're teachers, not life coaches, Grades matter.' Discuss.



START SMALL. THINK BIG.

A FULLY-INCLUSIVE CLASSROOM ASKS QUESTIONS SMALL ENOUGH FOR ALL TO CONSIDER AND OPEN ENOUGH TO EXPAND TO ANY LEVEL.

@TosephHfuller

Allow the simplest of the simp







#001

When does a human being first begin to think?

002

Come up with four ways to draw a sheep that don't actually involve drawing a sheep.

#003

Write the word CONFIDENT where you think it belongs on this character line.



Although lots of you will have written CONFIDENT at the opposite end to SHY, maybe it belongs in the middle, with OVERCONFIDENT or COCKY at the other end. Many of the characteristics we think are opposites can be stretched out a bit more until they become negative. For example, you might think the opposite of being a coward is being brave, but you can stretch out the idea of being brave more and more until you have someone who does things that are actually extremely risky and quite foolhardy.

Can these positive qualities become negative if you stretch them enough? friendly careful ambitious calm determined easy-going modest



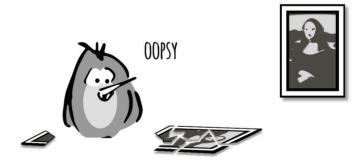
#004

If there was an implant that allowed you to hear everybody's thoughts at all times would you want it? Would it be a blessing or a curse to know what other people were thinking?

005

You are an art collector who owns the only two paintings left by a famous artist. These are world-famous works of art, hundreds of years old, and incredible precision has gone into every brushstroke. At the moment they are worth a few thousand each. If you destroy one of these beautiful paintings, the remaining painting will be worth millions to you as it will be the last one left in the world.

Would you destroy it?

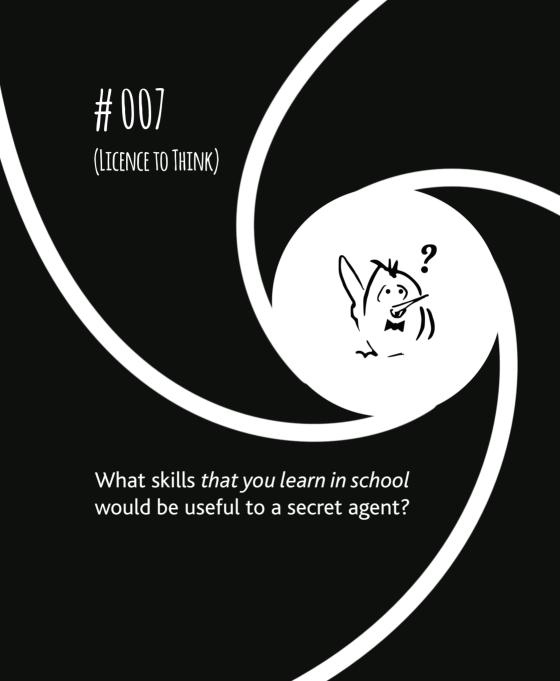


#006

Awe and wonder are like a couple of sumo wrestlers. Massive things, hard to pin down, but if they ever decide to burst into your classroom they change everything.

What was the last awe-filled moment that stopped you in your tracks?





008

It's possible you've never heard of the name Miles Scott. On 15 November 2013, thousands of people helped the Make-A-Wish Foundation turn San Francisco into Gotham City for a day so that five-year-old Miles (who is recovering from leukaemia) could be Bat Kid. Dressed in a mini Batman costume, he solved several staged crimes, was cheered on by crowds and even got a thank you message for saving the day from Barack Obama! The hashtag #SFBatKid was trending on Twitter for most of the day.

But, do you know what? Miles was a superhero long before 15 November and it had nothing to do with Batman. Many of the most inspiring people this world has to offer are under the age of 18, and the beauty of this fact is they haven't done anything special except be themselves. They've been through a lot – illness, tragedy, difficulties – but they've kept positive and kept going. What makes them amazing is that they stay smiling, even though they've been through things that most of us will never have to deal with.





At the time of writing this we've just read of an 18-year-old boy who hasn't got long to live. His parents wake up not knowing whether each day will be his last. But he doesn't want to waste a moment and has started up his own small business making bird boxes, which he'd like his siblings to take over one day. That kind of attitude is amazing. Which young people inspire you?

Find a way to tell them.

#009

When you're the mother of identical quadruplets how do you tell them apart? Tan Chaoyun from Shenzhen in China answered that question by shaving each of her quadruplets' hair into a different digit: 1, 2, 3 and 4! Today's question won't help Mrs Tan to identify her children any better, but it'll get you thinking. How many different four-digit numbers could they make by sitting in different positions on their school bench?



Some extensions:

- Imagine one of them is off sick. How many different three-digit numbers could they make?
- Now imagine one of their friends goes to Mrs Tan for a haircut too.
 How many five-digit numbers could the boys make?
- There's a children's book by Margaret Mahy called *The Seven Chinese Brothers*. It's got nothing to do with any of this, but you know what question is coming, don't you?



365 THINGS TO MAKE YOU GO HMMM...

grew out of a class display board and evolved into a hit website, and now **sparky teaching** have packed a whole year's worth of inspiring questions into this thought-provoking, beautiful and bewildering book. Use the Hmmms to take your class on a 'controlled tangent' and revel in the joys of questioning, whether as a five minute activity or as the starting point for a whole lesson.

As the curriculum becomes increasingly content-heavy, it is important to make the time to develop thinking skills; the Hmmms are in turn philosophical, challenging, metacognitive, provocative, irreverent and brain-stretching. Complete with a Hmmm-dex to guide you to specific topics such as literacy/numeracy skills, big topics or problem solving, there is a Hmmm for every lesson and for all age groups, both primary and secondary. Get thinking and make your classroom sparky!

Whatever you do, don't buy this book! At least, not if you want to be remotely productive or focused or are required to feed a small child regularly. 365 Things To Make You Go Hmmm... entertains, inspires, frustrates, befuddles, baffles and amuses in equal measure.

PAUL BANNISTER, HEAD TEACHER, HIGHBANK PRIMARY SCHOOL

This book's gentle humour, its flexibility (which gives you the scope to use it in your own way and to suit your context) and its focus on values, imagination and creativity will ensure that it sparks 'awe and wonder'. It will help children to discover talents and passions they didn't know they had, and encourage them to be the best they can be – within the classroom and beyond it.

TILL BERRY. FORMER HEAD TEACHER AND EDUCATIONAL CONSULTANT

Before reading 365 Things To Make You Go Hmmm..., I hadn't realised that I'd been on Earth for 1.3 billion seconds, and I'd never thought about what someone would feel like after spending a day in my mind. That's the beauty of this incredible book — it asks you to think about things that you've probably never thought about before.

PATRICK VENNEBUSH, AUTHOR, MATH JOKES 4 MATHY FOLKS

sparky teaching was launched to help teachers create classrooms where ordinary things are thought about in less than ordinary ways. With backgrounds in primary teaching and speech and language therapy, the goal of its creators is to ignite creative thought in teachers and pupils by providing unique teaching resources.

#HmmmsTheWord

DOSAGE: Take ONE question daily before thinking.

KEEP IN THE SIGHT AND REACH OF CHILDREN.

ALWAYS STORE ON A COOL AND DRY BOOKSHELF.

POSSIBLE SIDE EFFECTS: Increased appetite for learning,

brain ache or itching to solve a problem.

WARNING: May cause frequent outbursts of creativity.

