

# How do I get them to ask good questions?

## *Curiosity and questioning in the inquiring classroom.*

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*A child's world is fresh and new and beautiful, full of wonder and excitement. It is our misfortune that for most of us that clear-eyed vision, that true instinct for what is beautiful and awe-inspiring, is dimmed and even lost before we reach adulthood. If I had influence with the good fairy who is supposed to preside over the christening of all children I should ask that her gift to each child in the world be a sense of wonder so indestructible that it would last throughout life, as an unfailing antidote against the boredom and disenchantments of later years, the sterile preoccupation with things that are artificial, the alienation from the sources of our strength.*

Rachel Carson (1965: The sense of wonder)

An inquiry approach to teaching and learning is based on, amongst other things, a belief that we will be more engaged if we are curious, have a 'need to know' or a problem to solve. When we ask questions that need addressing, we have a purpose for our learning... in short, we WANT to find out. Effective learners ask questions, they tend to be people who remain curious and who approach life with 'wonderment and awe'. Questioning helps us 'uncover' - it is axiomatic to thinking and drives us as life long learners. One only has to spend time with very young children to know that, when left to explore the world, questions naturally arise out of life experience, indeed, some of the most profound questions we hear come from 'the mouths of babes'

While inquiry is almost synonymous with the business of asking questions - it is also one of the most vexed issues for teachers keen to adopt a more inquiry based approach in their classroom. "How do you get them to ask good questions?" "My kids don't want to ask anything!" "My kids don't know what a good question is!" "I can't work with the questions my kids ask!" .... These comments are typical of those teachers make when asked to identify some of the challenges they are experiencing in implementing an inquiry approach. While it is true that young children are indeed naturally curious and can ask many questions - this does not always easily translate to the classroom situation. Curiosity must be nurtured and the art of questioning itself, seen as part of the many things we inquire into as learners.

As Ted Robinson reminds us, one of the most troubling effects of schooling is that our innate curiosity - this thirst to make meaning and to find out how the world works - seems to diminish over a child's time at primary school. I'm often intrigued (alarmed) at the degree of thoughtful, independent, brave wondering I hear in a classroom of 3-5 year olds in comparison to some groups of 11-12 year olds where the spark of wonderment seems to have left them....at least when they are at school. Inquiry teachers want their students to be questioners - to be curious, risk taking wondering learners who are thirsty to find out, critique and explore the world. What can we do to encourage this? How do we keep curiosity and wonderment, value and indeed build the students' ability to ask a range of questions to assist them to come to understand more about the world and indeed themselves as learners? Here are some ideas and tips for nurturing questioning in the inquiry classroom...

### 1. Keep it connected

We tend not to ask questions about things we don't care about. It's that simple. And we care about things when we have some kind of connection to them. One way of building a sense of connectedness within an inquiry journey is to help students see the relationship between what they are investigating and something in their own lives. Maintaining a more conceptual approach to "topics" provides many more opportunities for students to make connections. For example, students may be investigating the question "How do animals survive and thrive in their environments?" - to help build connections, we ask students to think about the concept of 'survival' in their own lives ...

what do they need to keep safe, warm, sheltered - what does it mean to 'thrive?' Any "topics" we might explore as inquiries are vehicles that help lead students towards a bigger understanding of a more transferable concept. The more connected students are to the concept, the more engaged and the more curious they are likely to be

## 2. Make it worth wondering about

Action/problem based and project oriented inquiries will often stimulate authentic questions as students are driven to 'work it out' in the pursuit of a solution/a product and event. Being challenged to create a school vegetable garden warrants some serious inquiry. What grows best at this time of year? How much will it cost to get the right materials? Where will we make the garden? Who will maintain it? How will we protect it?

## 3. See questioning as a continuous process

Some models of inquiry suggest teachers begin by asking students "What would you like to find out about...?". This strategy works beautifully some of the time. Of course, there are contexts for inquiry in which the adage 'we don't know what we don't know' is the case. A more natural approach to eliciting questions is to invite questions early in the process but assume there may be many students not yet ready to ask. Invite questions throughout the inquiry journey - make this part of the reflective thinking work. Pause regularly to ask "What is this making you wonder?" Are there things you are interested in? Confused about? As students gather new information and are exposed to new ideas and new perspectives, they are more likely to ask questions. Some of the best questions happen well down the inquiry pathway. Keeping a 'wonderwall' to document these questions can work well. The questions can be removed, changed, re arranged - it's a dynamic rather than a static display.

## 4. Going beyond the 'unit of inquiry'

The use of questions to drive learning experiences for students does not, of course, have to be confined to specific units of inquiry. Asking questions should be encouraged and celebrated across the day - just as an inquiry based approach is applicable to all aspects of our work - not just "units".

## 5. Model, model and then model some more....

One of the most powerful ways to build students skills and dispositions around questioning is to show them the way YOU question in order to think more deeply about something. Wonder aloud. Share your thinking and questioning with the students. Add your own questions to wonderwalls:

*"What we just read has really got me wondering....I'm wondering whether why people seem to think that some animal are more important than others. I'm going to write that question down and add it to our collection. I'm also going to start asking my friends what they think about that question..."*

*"I need to find out how to use this program on the interactive whiteboard. I'm finding it really confusing. I'm going to call Mrs Smith in but I want to think about the questions I am going to ask her first. What do I need to find out?"*

*On my way to school today, I noticed that the almond tree has started flowering MUCH earlier than it usually does. It's made me wonder why. I wonder what plants trees to flower?*

## 6. USE questions to frame lessons/tasks.

Many of us try to share learning intentions with students. This practice helps give purpose and focus to a lesson. Another way of approaching this is, where appropriate, to frame the lesson around a question. Eg: Today we are going to be investigating the question: "What makes a good interview?"

or “ Can all shapes be cut in half?” As students begin to address the central question - other questions naturally arise out of the conversation.

## 7. Spend time inquiring INTO questions. Question questions!

The questions that arise as we learn and grapple to make meaning of something can, in themselves, be the subject of our inquiry. Help students to think more ABOUT the questions they ask - or might ask - by focusing on the many different kinds of questions that are possible to pose. Commonly examined are ‘open’ and ‘closed’ questions but there are many other ways of classifying questions. Try getting your students to think about their own categories...questions may be grouped according to:

- *Their subject matter (all these questions are ‘about’ the way animals move)*
- *Their structure (all these questions begin with a “why”)*
- *The ease with which an answer can be found*
- *HOW they might be explored (these questions can’t really be ‘googled’)*
- *How general or specific they are*
- *Whether they are ‘loaded’ or more neutral*

Thinking frameworks such as Blooms taxonomy, de Bono’s thinking hats, the Thinking gears and other organizing devices can be useful lenses through which to examine a set of questions. Grouping and classifying questions as a task in itself can really help students think more about the nature of the questions they are asking.

## 8. Scaffolds and structures

There are a range of routines, games and strategies that allow students to ‘play’ with different kinds of questions and to practice formulating them in different ways - noticing the kinds of responses that different questions elicit. These can be useful additions to your teaching repertoire and also something to ‘lean on’ when students might be struggling with articulating their wonderings as part of an inquiry. Some scaffolds/routines include:

- *The five whys*: asking a series of questions each one beginning with a why and linking to the previous answer
- *Using the ‘Q’ matrix* to explore different question combinations (and example can be found at <http://www.decs.sa.gov.au/assessment/pages/assessmentstrategies/question>)
- *Question the answer*: students are given the answer but must come up with the question/s

## 9. Build a culture of curiosity .... Stimulate questioning through a provocation/problem or wondrous moment!

- Get out into the natural world - nothing creates a need to know more intensely than observing the mysteries of life around us!
- Bring an object into the room that is not instantly familiar to the students. Invite them to use questions to explore what it might be...
- Show students intriguing and fascinating youtube clips - ask them “What does this make you wonder? What would you ask these people if you could?”
- Show images that provoke thinking and ask the same thing
- Present students with open ended problems that invite more questions....
- Encourage students to create their own problems to the class
- Have students find or create images to illustrate their wonderings
- Question boxes - where students write and place questions as they arise
- Introduce a ‘question of the day/week’ - that invites students to ponder, ask others, gather evidence. Gradually hand the responsibility of creating those questions to the students themselves.

## 10. And be careful how you ‘answer....’

Our responses to the questions children ask may be the greatest determinant of whether they continue to ask questions! Often times, a child poses a question because they actually want to share their thinking with us - not because they are actually seeking an answer. Try these tips for responding to questions:

*“What a great question! What made you ask that?”*

*“What a great question! Have you got some ideas about this already?”*

*“That’s really got me thinking too! I’ll bet other children are doing some thinking about your question. How about we turn to our partner and share our thinking?”*

*“That’s such an interesting question - I wonder how you could find out a bit about that?”*

Showing students that we value and are delighted by their questions is surely the best way to encourage them to keep asking! Sometimes the best answer is no answer at all

It is perhaps a test of whether children's questions have been answered rightly in their younger years to see how profound are the questions they ask when they are older, and if they are readily satisfied with the answers. For by the time they reach a more intellectual understanding towards the age of fourteen they should have a strong desire to probe every question in life to the bottom, and not be lightly satisfied by theory without knowledge. For children of this age there is a deep meaning in that part of the story of Parsifal where, as a young man, he first sees the wounded Knight, but does not ask of him the question he should. Many of the questions which children should have in their hearts at this age will indeed only be answered by life itself. They stand in the threshold of life, and life will answer them; but only if they put to life the right questions. (A. C. Harwood Education as an art, 1962)

### Further readings

How to Succeed with Questioning (2004) - Robyn English and Jeni Wilson Curriculum Corporation

Gallas, K. (1994) Talking their way into science' Teachers College Press

Wilson and Eing Jan (2008) Smart Thinking Curriculum Corporation

<http://questioning.org>

[www.morecuriousminds.com](http://www.morecuriousminds.com)

**How well do I know my students** as people? Do I know what interests them?  
Do I know what they are passionate about?

**Am I an inquirer?** Do my students see and hear MY questions about the world? Do I wonder aloud? Do I show them what it means to be curious and passionate about learning?

Do my **walls teach** or simply 'display?' What does my classroom say about what I value? What does it

Do my students know **WHY** they are doing what they are doing? Are my purposes clear and shared? Is this worth teaching?

Am I teaching my students **HOW** to inquire? Do they know what they are learning ?

What do my students **reveal** to me? Do I use this evidence to inform my planning?

How do I give my students **voice**? Do they **participate** in decisions made about their learning? Do I invite them in? Do I hold all the power?

How do I see myself as a teacher? What metaphors best describe my role?



# Teacher and student questions during a journey of inquiry....

Phase (not strictly linear) and purposes	What might students be doing/saying?	What might teachers be doing/saying?
<p><b>Framing up the inquiry....</b></p> <ul style="list-style-type: none"> <li>- establishing the context and compelling question</li> <li>- making links with system/school curriculum</li> <li>- identifying understanding goals</li> <li>- identifying key skills and dispositions</li> <li>- identifying possible indicators of understanding</li> </ul>	<ul style="list-style-type: none"> <li>- Sharing with the teacher and each other their views on what the inquiry should entail.</li> <li>- <i>We think we should learn more about...</i></li> <li>- <i>We would like to.../not like to...</i></li> <li>- <i>We are interested in...</i></li> <li>- <i>How about we....</i></li> </ul>	<p>What do these students want and need to learn and do?</p> <p>What are the students revealing to us in these initial conversations?</p> <p>What is important to learn about this?</p> <p>What are the big ideas?</p> <p>Why is this worth doing? Is this worth doing?</p> <p>How can we connect this with our students' lives?</p> <p>What do we know/think/believe about this?</p>
<p><b>Tuning in</b></p> <ul style="list-style-type: none"> <li>- Gathering data about students' existing thinking, knowledge, feeling and understanding....</li> <li>- Helping students make connections with the key concept/s</li> <li>- Providing purpose, big picture and authenticity</li> <li>- Motivating, exciting, engaging....</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Right now I'm thinking...</i></li> <li>- <i>This reminds me of...</i></li> <li>- <i>I think it works like this...</i></li> <li>- <i>My theory is...</i></li> <li>- <i>I would answer the question this way...</i></li> <li>- <i>I'm wondering (why/what/who/when/where/how)</i></li> <li>- <i>I'm learning about this because</i></li> </ul> <p>Students are typically making their thinking visible in a range of ways, - through play or more structured tasks - they are producing evidence of their early theories, possibly beginning to ask questions, they are becoming more aware of how this inquiry links with their lives and what they will be learning more about and learning to do...</p>	<p>What are you wondering?</p> <p>When you see this (image/question/word/object)...what does it make you think about?</p> <p>What does this remind you of in your own life?</p> <p>What connections can you make?</p> <p>I wonder what you are thinking about this?</p> <p>What do we already think/feel/know about this?</p> <p>What do we need to know or think more about?</p> <p>Why might this be worth learning about?</p> <p>Let's figure out what we already think about this...</p> <p>Let's see what we can work out first....</p> <p>What's interesting about this?</p> <p>What do we need to get better at doing as learners?</p>
<p><b>Finding out</b></p> <ul style="list-style-type: none"> <li>- Gathering new information to address the compelling question</li> <li>- Developing the research skills that are required</li> </ul>	<p><i>I think we could/should</i></p> <p><i>Maybe should search for</i></p> <p><i>How about we ask...</i></p> <p><i>I found out</i></p> <p><i>Oh - now I know...</i></p> <p><i>This makes me wonder about...</i></p>	<p>What would be the best way to find out more?</p> <p>Who could we ask? What could we do?</p> <p>What would be the best way to remember what we find out?</p>

<ul style="list-style-type: none"> <li>- Learning HOW to organize and manage the process of finding out</li> <li>- Having some shared experiences that will allow us to talk and share our thinking with others</li> <li>- Stimulating curiosity through new experiences and information</li> <li>- Learning how to record information gathered in efficient ways</li> </ul>	<p>Typically, students at this phase are involved in the process of planning for and researching new information. What they do depends on the manner in which they will be finding out - they may be experimenting, surveying, searching the web, watching clips, emailing or skyping experts, asking their parents or others, making phone calls, reading texts, viewing images, listening to podcasts, stories, speakers, examining artworks, working through a 'trial and error process. They are also recording what they are finding so they can refer back to it when they take their thinking deeper. They may also add to their wonderings – or wonder for the first time.....</p>	<p>What is this telling us?  How is this connecting to what we already knew?  How do we know whether this is reliable information?  How can we check this?  Where has this information come from?  How is this making us feel?  What skills will we need to use?</p>
<p><b>Sorting out</b></p> <ul style="list-style-type: none"> <li>- Comprehending -Making meaning of the information gathered</li> <li>- Revealing new thinking and deeper understanding</li> <li>- Answering questions</li> <li>- Reviewing/revising early thinking – synthesizing</li> <li>- Interpreting the information and communicating with others</li> </ul>	<p><i>I used to think but now I think</i>  <i>I can answer some of my questions</i>  <i>I wasn't expecting to find out that....</i>  <i>I can connect this with....</i>  <i>I have learned that</i>  <i>This means/I think this means</i>  <i>'This tells me that...</i>  <i>Now I'm wondering</i>  <i>I'm learning how to</i></p> <p>In this phase students are typically sharing their discoveries. They are using math, art, language, organizers, drama, dance. music etc to process and respond to the information they have. They are talking, responding, sharing and processing. They are revealing new and deeper understanding about the concept. New questions may emerge as a result of this processing of information...</p>	<p>How is our thinking changing?  What patters are you seeing?  What does this mean?  What questions does this make you want to ask?  What are you noticing?  What questions have we answered? Now what?  What's the best way to explain this to others?  What connections are we making?  How is this making a difference to us?  How are we using what we are learning?</p>

<p><b>Going further</b></p> <ul style="list-style-type: none"> <li>- Opportunities for students to pursue questions and interests arising from the journey so far</li> <li>- Learners to work more independently on their investigations</li> </ul>	<p><i>I want to find out more about... Why/who/what/where/when/how Can we/I.... I think I should/could... I'm confused about I still need to know/do</i></p> <p>Typically students are working on projects/investigations that are more independent. They are designing all or some of their own inquiry journeys.</p>	<p>What are YOU most interested in finding out about now? How could you take this further? How might you go about this investigation? What new questions do you have? Is there something you think you could DO with this information? How can you achieve that? What personal learning goals can you set during this task? What do you need? What do you need to do?</p> <p>(Going further involves many of the previous questions but used on a more 1-1 basis rather than whole class)</p>
<p><b>Reflecting and acting</b></p> <p>(THESE 'PHASES" ARE ACTIVATED THROUGHOUT THE CYCLE)</p> <ul style="list-style-type: none"> <li>- to help students apply their learning to other contexts - to put the learning to use</li> <li>- to enable the students to reflect on what and how they have learned and set goals for the future</li> </ul> <p>to assess final understanding and growth in skills</p>	<p><i>I used to think but now I think I can use this when... I /we should I/we have learned to I have learned more about... Next time I need to I wish I had I have got better at Next time I/we should</i></p> <p>Typically students are engaged in tasks that put their learning into "action" in some way. This might be individual or collaborative. It might be the end of the inquiry or during it. Students are also reviewing, revising and reflecting both on what and how they have learned. They are involved in TASKS that provide a closure to the inquiry but are also mindful that new questions have arisen and further investigation is possible. Importantly, students are sharing their awareness of HOW they are learning – what they are learning about learning itself as they explore the question.</p>	<p>So what? What can we say now that we couldn't say then? What do we think is the most important thing we have learned about/to do? What have we noticed about our thinking along the way? What is in our tool kit as a result of this investigation? What should we share with others? How? How has this changed us? Now what? What questions are we left with? What have we learned about ourselves? About learning?</p>

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