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# ENQUIRING MINDS PROFESSIONAL DEVELOPMENT MATERIALS

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Following recent changes to the secondary curriculum many schools are re-thinking the educational experience they are providing for young people, for example by taking thematic approaches or developing a competencies curriculum.

These professional development materials have been written to support educators in exploring some of the issues and challenges around putting curriculum change into practice. They were developed during the three-year research project Enquiring Minds that explored the ideas of a partnership curriculum.

Enquiring Minds is an approach to teaching and learning, developed by Futurelab and supported by Microsoft, that takes students' ideas, interests and experiences as its starting point, and provides them with more responsibility for the direction and content of their learning.

This document is available to download from [www.enquiringminds.org.uk/try\\_it](http://www.enquiringminds.org.uk/try_it).

### How to use these materials

The aim of these materials is to support a core group of practitioners or an individual practitioner to stimulate discussions with their colleagues around the issues involved in curriculum change.

The activities will allow teachers to explore issues that are pertinent to their school and their practice.

It is not necessary to explore all the activities or for them to be used in any particular order. You can tailor the pack to suit your needs.



Many of the activities can also be used in a classroom setting with students. Look for this symbol.

These professional development materials accompany the Enquiring Minds Guide, available at: [www.enquiringminds.org.uk/guide](http://www.enquiringminds.org.uk/guide).

## OUR SCHOOL THESE DAYS: MINDSET CARDS

### Purpose:

There is a current focus on how schools can develop the kinds of educational experiences that are appropriate for young people growing up in the 21st century.

New pedagogical approaches that support creative, personalised learning and skills development have emerged to sit alongside the traditional approaches to the curriculum.

Each individual school community has its own educational ideals and values and as such will hold different educational mindsets in varying regard; some will be more dominant than others.

It is useful for practitioners to spend some time together thinking about the mindsets and values represented in their school and how a new initiative might fit alongside/ within these.

### Suggested activity:

Below are a set of educational mindsets, which can be photocopied and cut out.

There is space for you and your colleagues to add further ones if you wish.

In small groups:

- Take one card at a time and discuss the mindsets with colleagues.
- Identify which ones are more prevalent than others in your school and discuss why.
- Find a way to create a representation of these mindsets at your school and identify the effects these mindsets will have on attempts to change the curriculum (eg in the past teachers have simply arranged the cards in a pattern, drawn a picture or performed a skit).

<p><b>Old basics</b> Focus on basic skills, literacy and numeracy</p>	<p><b>Emotional literacy</b> Helping young people develop self-esteem, self-control and so become socially and educationally successful</p>
<p><b>New basics</b> Soft skills, skills perceived to be needed for employment in the 21st century, eg collaboration, creativity, thinking skills</p>	<p><b>New media literacy</b> Developing the ability to critically analyse, understand and create digital media</p>
<p><b>Personalised learning</b> A tailored curriculum and teaching methods to meet the individual needs of students</p>	<p><b>Learning to learn</b> Developing the skills needed to become a successful learner, eg PLTS, BLP</p>

## SCHOOLS THESE DAYS

### Purpose:

Today, there is intense debate about the type of education system required to prepare young people for the 21st century.

Many commentators suggest that the experiences of children have changed dramatically over the past 50 years and that schools have failed to keep pace with this change.

As such there has been a drive for innovation in teaching and learning that has resulted in a number of new initiatives and curriculum changes.

It is useful for teachers to explore the context from which various educational initiatives have emerged.

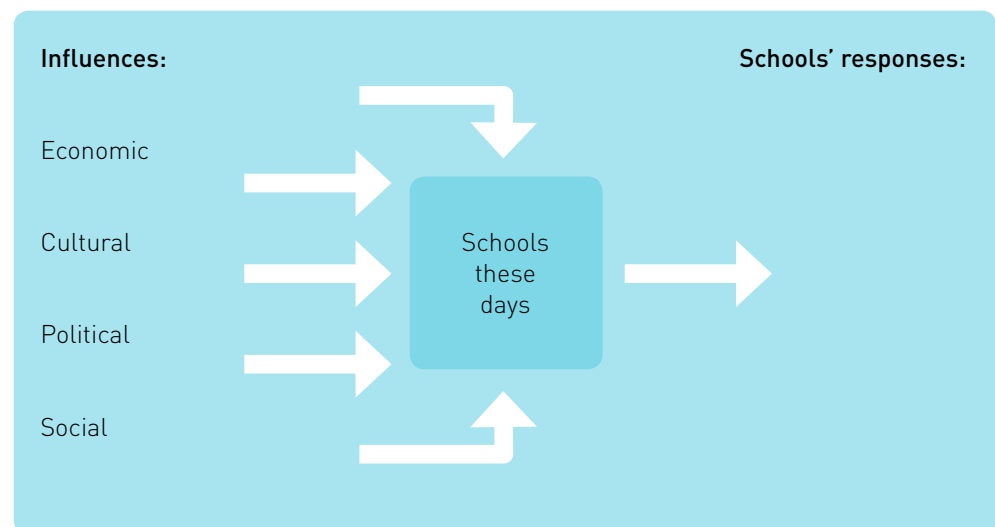
### Suggested activity:

Discuss the current economic, cultural, political and social influences on schools.

- What's happening in society that's causing schools to change?
- What reforms are there? Where are they coming from? What's driving them?
- What contradictory messages are being given to schools?

You could enlarge the diagram below and use it to record your thoughts.

- How can/should/must schools respond to external influences?



## WHAT IF? SCHOOLS OF THE FUTURE

### Purpose:

This activity aims to support educational professionals to consider some possible scenarios for education in the future and what the implications of these might be.

### Suggested activity:

Below are a set of 'What if?' questions relating to learning in the future:

- What if there were more teachers in the classroom?
- What if school was optional?
- What if learning groups weren't organised by chronological age?
- What if students could learn from remote experts using digital technology?
- What if most learning was collaborative?
- What if all learners were provided with personal digital technologies?
- What if learners were regularly involved in re-designing the curriculum?
- What if teachers were available online to support students?
- What if digital technology was banned from school?

Using the questions above as a starting point, do **one or more** of the following:

- Simply discuss each 'What if?' question – what would it mean for education, for educators of the future? Crucially, what should we be doing now if this is what school might look like in the future?
- Make up your own 'What ifs' – in pairs or small groups, take two minutes to come up with as many 'What if?' questions relating to the future of schools and learning as you possibly can. Discuss them as above.
- Play 'Just a Minute What if' – each member of the group chooses a 'What if?' question that particularly interests them. They have one minute to talk about the implications of their chosen 'What if?' to the group – no hesitation, repetition or deviation.

Visit the Beyond Current Horizon's Power League. BCH is a project which looks at the future of education, beyond 2025. Its special edition of Power League is a free web resource for exploring issues and opinions around the questions: What will education be for in 20 years' time? What does this mean for how it should be delivered? [www.beyondcurrenthorizons.org.uk/powerleague](http://www.beyondcurrenthorizons.org.uk/powerleague)



'What if?' encourages students to devise and explore open-ended questions. It allows them to give their thoughts, ideas and opinions on desirable, probable and possible futures in any topic.

## CHILDREN THESE DAYS

### Purpose:

What it means to be a child is socially and culturally contingent. It varies in time and place.

Teachers who respond to the interests of the young people they teach may find they are challenged in their own beliefs about what is deemed 'important' in the lives of their students.

This activity aims to explore notions of childhood and to support teachers in identifying their own thoughts, beliefs and assumptions about the lives of young people today.

### Preparation:

You will need:

- Images of children in the 1950s and the 1970s. Use a search engine to find these by searching for "children 1950" or "children 1970".
- 10-20 old magazines to cut up.

### Suggested activity:

In small groups:

- Look at the images you have found and discuss children's lives in the 1950s, 1970s. How are they different from children today? How are they similar?
- Look through the magazines you have bought and choose five images that, as a group, you feel are representative of the lives of your students. Stick these images onto a piece of paper.
- Study the images and use them as prompts for a brainstorm of words to describe young people and childhood these days. Write these around the images if you wish.
- From the words your group have written, collectively agree a 10-word statement about children these days. Keeping the statement short ensures every word counts and may well engage you in a debate over which words to use and why. Write your group's statement below.
- Each small group should share their statement with the other groups.

Discuss:

- What differences are there between the statements of each group?
- What different assumptions have been made about children and childhood today?
- How might these ideas of children today affect your relationships with your students?

10-word statement: Children these days...

## TEACHERS THESE DAYS

### Purpose:

Curriculum change involves changing approaches to teaching and learning. This can challenge our notions of teacher professionalism; what it means to be a teacher and what the role of the teacher is.

This activity aims to support teachers in defining their values and views of their profession.

### Preparation:

For the second of the activities below you will need large sheets of paper (eg flipchart) and 10-20 old magazines to cut up.

### Suggested activities:

Choose **one** of the following:

#### 1) Draw and illustrate

- In your groups, work collaboratively to draw a picture of a typical teacher today.
- The picture should illustrate what you believe to be the key issues surrounding your profession.

#### 2) Cut, paste and collage

- In your groups, using pictures from the magazines, work collaboratively to create a collage of a typical teacher today.
- The collage should illustrate what you believe to be the key issues surrounding your profession.

Share the pictures/collages with the wider group.

Are there any similarities or themes that emerge from the collages/pictures?

Use the collages/pictures as a basis for discussion:

- What is the role of the teacher today?
- What pressures are there on teachers today?
- What external influences are there on the role of the teacher?
- What key professional relationships do teachers have?
- What values underpin teaching today?
- Any other issues that you feel are relevant to your profession today.

## CLASSROOM RELATIONSHIPS

### Purpose:

With changes to teaching and learning come changes in classroom relationships and the interactions between teachers and students. This activity supports teachers in identifying what their current classroom relationships are like, how they would like them to be and how they might change.

### Suggested activity:

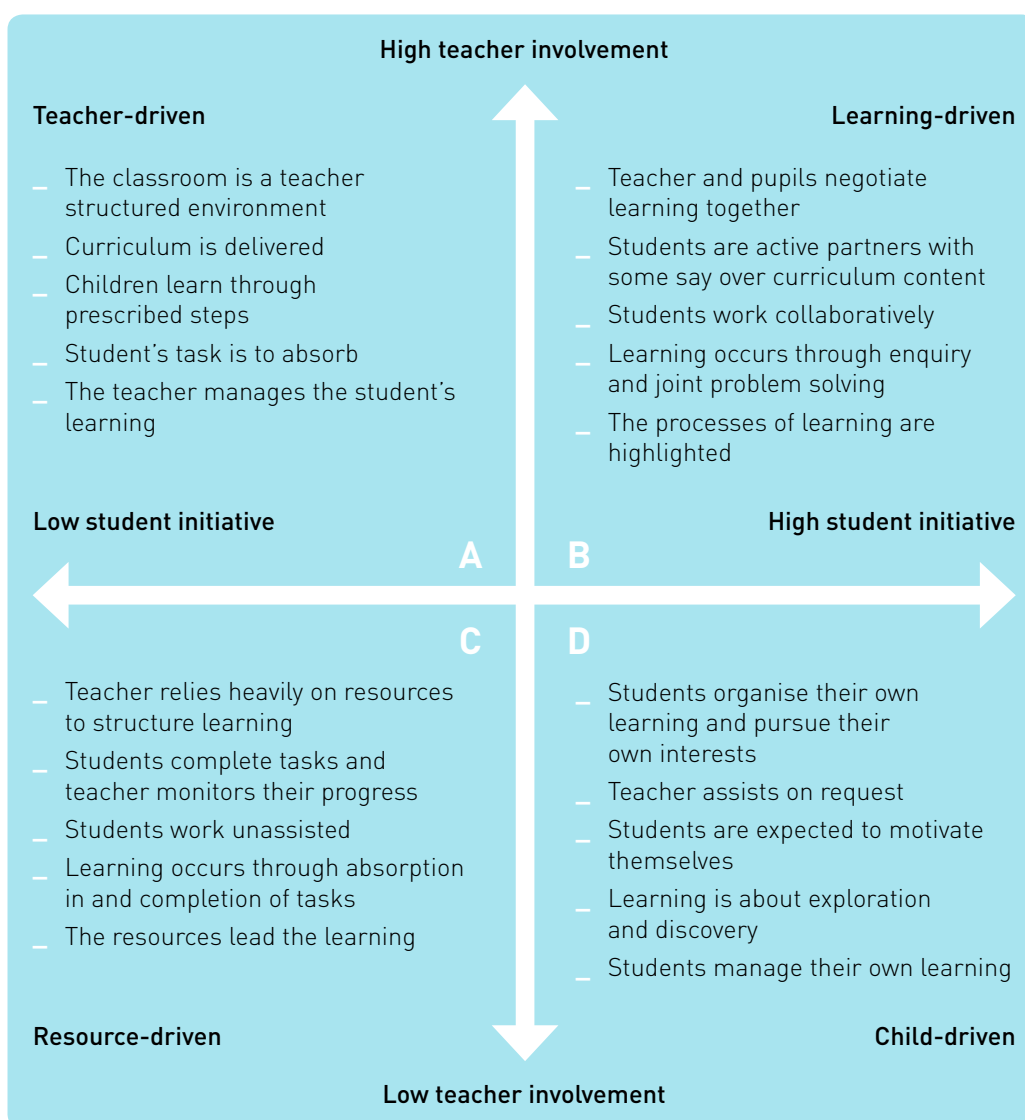
The table below shows a model of teacher-student, adult-child interaction in classroom settings. There are two axes; one for teacher involvement and one for student initiative.

Individually:

- Think of a lesson you have recently taught and plot where you think the classroom interactions were on each axis. Which quadrant were the interactions in?
- Which quadrant would you like your classroom interactions to be in?

As a group discuss:

- What affects your classroom interactions? Do they change under different circumstances? How can you change them?



Based on a model of adult-child interaction in classrooms, Pollard et al, Reflective Teaching, Continuum, 2002.



## THROUGH SOMEONE ELSE'S EYES

### Purpose:

Connecting with aspects of students' interests and experiences and encouraging them to examine those things from different perspectives in order to better understand the forces that shape their world, can be challenging.

This activity allows teachers to explore the familiar area around their school from different perspectives and think about how others in the community, including the students they teach, might be affected by it. It could support teachers in connecting with their students and planning enquiry activities with their experiences as the starting point.

### Suggested activity:

You will be taking a walk around an area close to the school and considering it from the perspective of your students and others.

Before you start, agree an area to walk around and a selection of people through whose eyes you would like to consider that area, eg pupil, parent, ex-pupil, town planner, local policeman, bus driver, local shopkeeper.

Now take a walk around your chosen local area.

Take a digital camera with you.

- Stop at various points.
- Take a photograph of each point you stop at.
- At each point consider what you might see from the perspectives of the people you have chosen.
- Record your thoughts.

Back in school:

- Examine the pictures you have taken.
- How does the local area affect each person you were thinking about?
- How might the local environment affect your students on their journey to and from school?
- What themes or areas of study do these images and discussions suggest you should explore with students?



This exercise can also be extended with pupils. Show them the photographs you have taken and discuss with them what they see and how that place makes them feel. Plot photographs onto a local area map and do some emotion mapping with the pupils, ie ask them to colour the map according to how each particular area makes them feel. This gives students an opportunity to share their thoughts, ideas and experiences and can provide an insight into issues and themes worth exploring further.

## TYPES OF KNOWLEDGE

### Purpose:

Knowledge in schools is traditionally offered to students as tidy packages of content. This is reflected in the metaphor often used to describe teaching: that the curriculum is being 'delivered'.

Coming from the point of view that knowledge is created as a product of human activity and that students possess valuable knowledge and ideas that they might bring to the classroom, this activity asks teachers to examine the different sorts of knowledge that are present in their school community.

### Suggested activity:

In small groups consider the types of knowledge that exist in your school.

List them, using the table below to group the different types.

Now rank the importance of the various types of knowledge from the following different perspectives:

- From the point of view of getting students through exams.
- Your students' point of view.
- Your own point of view.

Discuss:

- What knowledge exists in your school that isn't taught?
- Why are some types of knowledge considered more important than others?
- What are the implications of marginalising certain types of knowledge?
- How might knowledge from outside school be used in school?

Core subject knowledge	Other subject knowledge	School knowledge that cuts across subjects	Cultural/societal knowledge	Popular knowledge
eg Maths Literacy	eg PSHE PE/Sport	eg Critical thinking	eg Rules of behaviour	eg Popular music Computer games

## LOOKING INTO SPACE

### Purpose:

This activity examines how space is traditionally organised in classrooms, what messages those arrangements can give about teaching and learning and how they might change.

### Preparation:

Prepare by finding pictures of a wide variety of different classrooms, for example by searching for images on the internet. There will need to be enough pictures so that colleagues can divide into small groups and have between 10 and 20 images per group.

### Suggested activity:

In small groups look through the pictures of classrooms you have been given.

Take two pictures of classrooms at a time and discuss them.

- Which classroom layout do you most like and why?
- What messages about teaching and learning does each classroom arrangement give?
- How could each classroom layout impact on classroom relationships?
- What approaches to teaching and learning do the classroom arrangements facilitate? eg collaborative, enquiry-based.

Do themes emerge in the choices of the group?

On the whole, what kind of classroom layouts do you prefer and why?

If you have internet access during the session, you could use Power League which is a free resource for actively engaging people with topics. The league allows people to cast votes in which they repeatedly choose between two different competing people, ideas or things. You could create your own Power League using images of a variety of different classrooms to stimulate discussion and debate amongst your colleagues: [www.powerleague.org.uk](http://www.powerleague.org.uk).



Power League is an interesting way of stimulating discussion amongst students. You could use it for whole-class debate around a topic, or groups of students could create their own Power Leagues to investigate opinions surrounding their topic of enquiry.

## TIME TO LEARN

### Purpose:

The organisation of time is important in schools for logistical reasons. Although it is recognised that not all learning takes place at the same pace, teachers generally control time to maintain the pace of the lesson and ensure curriculum coverage.

This activity is designed to help teachers think about how time is currently organised in their classrooms and how it might be organised differently.

Is it possible to imagine lessons geared to the paces of individual learning and to give students a greater role in determining how long they should spend on a task or when it should be finished?

### Suggested activity:

Draw a time line of your lesson, include on it who determines the length of time taken, eg

<b>Introduction to lesson</b> <b>X mins – teacher timed</b>	<b>Students complete task assigned</b> <b>X mins – teacher timed</b>	<b>Plenary</b> <b>X mins – teacher timed</b>
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Think about or discuss with colleagues:

- How is time organised in lessons? Do lessons always start and end in the same way?
- Who organises time in lessons? In school?

Consider the opportunities and challenges that would arise if pupils organised/negotiated time allocation in lessons:

- Why might you allow pupils more control over their own learning time?
- Does that fit with your own values?
- How would you manage your class differently?
- Would it change your relationships with your pupils?
- How do you feel about organising time differently?
- How might you allow pupils more control over their own learning time?

### Pupils organise/negotiate time allocation in lessons

#### Challenges

eg Different groups are at different stages with their work at different times – hard for teacher to administrate

#### Opportunities

eg Students take responsibility and development time management skills

## A QUESTION OF RESOURCES

### Purpose:

Teachers often choose and control the resources used to support learning.

This activity asks teachers to consider a wider range of resources that could support learning and elicit students' ideas, opinions and interests. These additional resources could include materials relevant to and suggested by students. It is also worth considering that a wider range of people can support the process of enquiry learning.

### Preparation:

Gather examples of different media that include topical issues - see examples at bottom.

Before the session it would be useful to have a short chat with a group of students and ask them if they might be willing to share with you where they search for information and what magazines or websites they read.

### Suggested activity:

One person needs to record colleagues' suggestions.

The rest of the group should spend five minutes:

- Scanning quickly through the resources provided.
- Calling out topical issues that interest them for the person scribing to list.

Discuss the breadth of issues identified.

In small groups:

- Choose one of the issues.
- Come up with as many questions about that topical issue as you can in 10 minutes.

Share some of the questions your group has thought of with the wider group.

Discuss:

- What kinds of questions are there?
- Which questions are most interesting?
- Which kinds of questions could potentially lead to an enquiry for students?

In small groups, choose one of the questions that could potentially lead to an enquiry.

- How might a wider range of people be involved in supporting a small group of students who were researching the question? eg experts in the community, school support staff, parents, remote experts via e-mail.

Examples of resources:  
Newspapers  
Magazines (including teen magazines)  
Comics  
YouTube video clips: [youtube.com](https://www.youtube.com)

Websites including:  
[news.bbc.co.uk](https://www.news.bbc.co.uk)  
[uk.news.yahoo.com](https://uk.news.yahoo.com)  
[twine.com](https://www.twine.com)  
[radiowaves.co.uk](https://www.radiowaves.co.uk)  
[wikipedia.org](https://www.wikipedia.org)

## WHO'S TALKING? LANGUAGE IN THE CLASSROOM

### Purpose:

This activity supports teachers to reflect on the nature and pattern of talk in their classroom. If knowledge is interpreted, constructed and critiqued through interactive, explorative and collaborative classroom communication, how can this be facilitated?

### Suggested activity:

This activity requires participants to prepare in advance.

Use a tally chart such as the one below to identify the types of talk in the classroom.

To do this you will need to either record one of your lessons and listen/tally afterwards or ask a colleague to observe a lesson and tally for you.

Teacher talk				Learner talk			
Related to learning	Admin talk (setting up of tasks etc)	Talk about behaviour	Other	On task – learning related	On task – admin of task related	Social chat	Other

Look at the tally chart and/or listen to the recording of your lesson again.

Consider:

- How much speaking is there?
- Who speaks and how much?
- When do the pupils speak?
- When does the teacher speak?
- What kind of talk is there? Discussion? Debate? Question and answer?
- Which pupils speak?

Wider group discussion:

- What might be the effects of teacher talk on pupils?
- What messages does it give them about their learning and their role in learning processes?
- How can you ensure that pupils have more talk time in lessons?
- What affects who speaks and how much?

## TIME, SPACE, LANGUAGE, RESOURCES LESSON PLANNER

It is helpful to have done the activities on time, space, language and resources before doing this activity.

### Purpose:

A different approach to teaching and learning requires a different approach to lesson planning. In addition to arranging learning activities, it is useful to consider how time, space, language and resources will be organised during the session.

### Suggested activity:

Use the table below to plan a lesson. You might find it helpful to do this with a colleague. You can also use this planner as an evaluative tool after your lesson.

### Time, space, language, resources lesson plan:

<b>Date:</b>	<b>Class:</b>
<b>Activities planned:</b>	
<b>Time</b> How will time be organised or divided up in the lesson? Who will control the time? How will this be decided? Is there room for negotiation?	<b>Space</b> How will space be organised in this lesson? What messages will this suggest about classroom interaction? What's the best use of space for the planned activities? Could use of space be negotiated?
<b>Resources</b> What resources will be used for this lesson? How could you ensure they reflect children's experiences? Who will be responsible for the introduction, collection and organisation of the resources? Could students supply their own resources?	<b>Language</b> Who will do most of the talking in this lesson? Who will control the talk? What will the nature of talk be? Debate? Question and response? Are there any particular open ended questions that might facilitate debate in this lesson?

## SUBJECT KNOWLEDGE – DEVELOPING DIFFERENT PERSPECTIVES

### Purpose:

This activity supports teachers in thinking about how subject knowledge can support cross-curricular/interdisciplinary or enquiry-based teaching and learning. Subjects of the curriculum provide distinctive perspectives and approaches for young people to understand their interests and experiences in the world.

### Activity:

Below is a list of questions that students have come up with for Enquiring Minds enquiries.

- As a small group, choose one.
- List the subject specialisms of those in the group and as many others as you wish.
- How can each subject be linked with the question you've chosen?
- Discuss how you would support a group of students in researching this question.

### Enquiring Minds questions:

Why are some children in the world made to fight as soldiers in wars? Is there life on other planets? How are advances in medicine changing the way we live? Do ghosts exist? Who creates fashion? How are mobile phones affecting the world? Is there any way of getting a tiger to trust you?

### Example: Is it possible to stop bird flu forever?

Specialist	What they would want to know
Scientist	What virus causes bird flu? What is the nature of viruses? How are people trying to develop a cure/vaccine? What is a vaccine? What measures are currently in place to stop the spread of the disease? Are they effective?
Geographer	Does anyone know where bird flu originated? What's the current geographical spread of the disease? What is the impact of modern farming practices/climate on the spread of the disease?
Mathematician	How many cases of bird flu have been identified each year over the past five years in different countries? Are the cases increasing year on year? Can the pupils find/read/create graphs that show these statistics?
English specialist	How is bird flu reported in various different types of media? What sort of language is used? How does this impact on the reader? How is the science reported in the media?
Historian	When was the first reported case of bird flu? Have there been outbreaks of similar viruses in the past? What was done about them? What can we learn from the way previous outbreaks have been handled?



This activity supports students in examining questions about a chosen topic. Thinking about what people from other disciplines would be interested in raises further questions and can help students define what aspect they would like to examine in detail. The teacher can support the pupils to identify a range of different perspectives. These could include various professions, eg TV producer, librarian, businessman, builder, police officer etc.



## THINKING BOXES – DEVELOPING DIFFERENT PERSPECTIVES

### Purpose:

Taking students' ideas, interests and experiences as a starting point for learning can be very powerful. This activity allows teachers to think about how they might encourage their students to look at their interests from different perspectives in order to generate further questions and curiosity.

### Activity:

Thinking Boxes: analyse a topic or object from these different perspectives - personal, local, global and its place in history. You can enlarge the diagram below and use it to record your responses to the questions below.

- Choose a topic, eg the environment, the Olympics, medicine, space, or an object, eg mobile phone, iPod, pair of trainers, computer.
- What does it mean to you?
- How does it affect things locally?
- How does it affect things globally?
- How has it changed in the past?
- How might it change in the future?



Thinking Boxes is just one of many free online thinking guides available for teachers and students on Exploratree, a Futurelab web resource that emerged out of our work on Enquiring Minds: [www.exploratree.org.uk](http://www.exploratree.org.uk).

## DILEMMAS

The following pages contain a set of cards. On each card is a dilemma that teachers might face when exploring curriculum change. Each dilemma consists of two teaching and learning options that seem mutually exclusive and which teachers might find themselves having to choose between.

In pairs or small groups, choose a few dilemmas that interest you.

For each dilemma card:

- Consider and discuss the challenges and opportunities of each option presented using the prompt questions to help.
- Record your main points on a grid. There is an example below and a blank grid provided over the page for you to photocopy.
- Having discussed the issues that arise, is there one option you feel more comfortable with? Are there implications for your classroom practice?
- Are the two options actually mutually exclusive?

### Dilemma example

**Teacher chooses and enforces that choice - students comply**



**Students take on responsibility for how the learning environment should be**

<b>Teacher chooses and enforces that choice - students comply</b>	
Opportunities	Challenges
<p>Students know where they stand</p> <p>Easier to maintain discipline</p> <p>Less time consuming</p> <p>Teacher has same rules for every class, every year</p>	<p>Students feel rules and content of learning are imposed upon them</p> <p>Some students may rebel against it</p> <p>Some may become passive and wait to be 'spoon fed'</p>
<b>Students take on responsibility for how the learning environment should be</b>	
Opportunities	Challenges
<p>Students feel more ownership of classroom rules and activities</p> <p>More likely to adhere to rules decided collectively</p> <p>Students are active participants in their learning – good preparation for adulthood and the workplace</p>	<p>Teacher may not agree with students' decisions and therefore feel loss of control</p> <p>Students not used to being given responsibility – some may react by pushing boundaries and disrupting learning</p> <p>Time consuming – no space in the timetable/curriculum for this sort of debate and collaboration</p>

## DILEMMA GRID

Photocopy as many copies of this blank grid as you need.

Use your grid to record notes about your discussion of the challenges and opportunities of each option presented on the dilemma cards you have chosen to examine.

The 10 dilemma cards can be found on the following five pages.

<b>Option 1:</b>	
Opportunities	Challenges
<b>Option 2:</b>	
Opportunities	Challenges

## DILEMMA CARDS

### Dilemma 1

Treating the student  
only as pupil



Treating the student  
as whole person

#### Some ideas for discussion:

Does seeing pupils as abilities and grades help teachers to prepare them for exams?

Could getting to know pupils better as individuals help teachers better respond to their needs as learners?

Is the job of a teacher to ensure students receive the knowledge they need to pass exams, or is it to react and respond to students' ideas, interests and experiences?

### Dilemma 2

Teacher should adopt a  
formal role with  
students



Teacher should relax  
with students

#### Some ideas for discussion:

Can a good learning environment be fostered without the teacher adopting a formal role?

How might this be achieved?

What effect might each of the above options have on your relationships with your students?

Which is your preference? Does either option challenge your notions of what it is to be a teacher?

## DILEMMA CARDS

### Dilemma 3

Teacher's time and attention needs to be divided among all children



Teacher needs to build relationships with and pay attention to the needs of individuals

#### Some ideas for discussion:

Does the nature of teaching 30 children in one class mean that there simply is not time for teachers to pay attention to the needs of individuals?

How is it possible to foster a classroom atmosphere that allows the teacher one-to-one time with each student?

Can/do teachers balance both of the above options?

### Dilemma 4

Teachers deliver subject knowledge based on a curriculum that students are deemed to need



Teachers and students develop and negotiate curriculum content based on students' ideas, interests and experience

#### Some ideas for discussion:

How important is it for students to be active participants in their learning?

Why do we need a national curriculum?

How is it possible for students to negotiate the content of their curriculum?

What would this mean for subject learning and teaching?

Can students' interests and experiences outside school be valuable as a starting point for learning?

## DILEMMA CARDS

### Dilemma 5

Students are motivated by external rewards



Students are motivated intrinsically through ownership and enjoyment of activities

#### Some ideas for discussion:

What external rewards are used to motivate pupils?

What if children chose from a range of activities to be engaged in?

If children are internally motivated will they still need external rewards?

What are the implications for behaviour?

What if students assessed their own and each others' work?

### Dilemma 6

Students need to develop skills to work collaboratively



Students need to develop self-reliance and the confidence to work independently

#### Some ideas for discussion:

How do students develop their collaborative skills?

Is independent working the same as working individually?

Could it be possible for students to develop collaborative skills whilst being independent learners?

## DILEMMA CARDS

### Dilemma 7

School is to educate children for future employment



School is to educate children for their present needs

#### Some ideas for discussion:

What do you believe is the job of the school?

What moral obligations do teachers have to the students?

Should teachers ensure children are equipped with skills they will need as future workers?

How can teachers ensure the needs of the whole child are being met at school?

### Dilemma 8

Teacher talks, students listen - work is completed individually in near silence



Teacher and students work collaboratively, discussion is welcomed

#### Some ideas for discussion:

How does learning occur? Through pupils listening carefully and absorbing facts?

Through working independently on tasks? Through group problem solving?

Through enquiry? Through debate and discussion?

What does an effective learning environment look and sound like?

## DILEMMA CARDS

### Dilemma 9

Single traditionally trained teacher takes responsibility for students learning in a particular subject



Teaching and learning is a communal process - others such as those from the local community can be involved in the learning process, students can teach each other, teachers are learners too

#### Some ideas for discussion:

How could other people be involved in learning?

Who might these people be?

Would it be possible for students to communicate via e-mail or video-conference with remote 'experts'?

What are the implications for the role of the teacher if other adults are involved in students' learning?

### Dilemma 10

Teacher chooses and enforces that choice - students comply



Students take on some responsibility for how the learning environment should be

#### Some ideas for discussion:

What messages about learning do each of the above options give?

What are the implications for teacher time of each of the above options?

How might having more responsibility for their learning environments affect student behaviour?



## USEFUL READING

Teachers interested in the issues raised in these materials might find the following books useful.

**Alex Moore, *The Good Teacher: Dominant discourses in teaching and teacher education* (Routledge, 2004)**

Moore describes the ways in which ideas and ways of thinking about teaching have changed in recent decades, showing how notions of 'good teaching' are related to policies and initiatives.

**Chris Watkins, *Classrooms as Learning Communities: What's in it for schools?* (Routledge, 2005)**

In learning communities all children are considered equal contributors to the knowledge and understanding of the group as a whole. Watkins details what a classroom would look like as a learning community and provides guidance for teachers.

**David Buckingham, *Beyond Technology: Children's learning in the age of digital culture* (Polity, 2008)**

Buckingham analyses the changing uses and abuses of ICT in school and shows how technology and media are used by children in their social and leisure time. He argues that ICT is often misused in schools, and describes how teachers can use it to extend children's learning.

**Hilary Street and Julie Temperley, *Improving Schools Through Collaborative Enquiry* (Continuum, 2005)**

The contributors to this book describe how 'collaborative enquiry' can help to improve teachers' work, both through working with one another as professional collaborators and by working with children as collegial partners.

**Kathryn Ecclestone and Dennis Hayes, *The Dangerous Rise of Therapeutic Education* (Routledge, 2008)**

This controversial book argues that contemporary schools are being made to focus on the emotions, well-being and happiness of children, with the result that the importance of subject knowledge is being neglected. It questions what sort of values an 'emotional' education system develops in children and what this means in practice.

**Michael Fielding and Sara Bragg, *Students as Researchers: Making a difference* (Pearson, 2003)**

Fielding and Bragg provide detailed guidance for teachers on how to work with students as researchers. This means carrying out collaborative research in the classroom, as well as consultative research with one another on aspects of their own schooling.

**Nick Lee, *Childhood and Society* (Open University Press, 2001)**

What we mean by the word 'childhood' changes according to social, economic and political context. Lee describes how ideas about childhood and adulthood have changed in recent years, and suggests that this has practical implications in the classroom.

**Nicola Madge, *Children These Days* (Policy Press, 2005)**

Madge supplies data from a large-scale survey and series of interviews with children from across the UK which shows how children feel about growing up and going to school.

**Pat Thomson, *Whole School Change: A review of the literature* (Creative Partnerships, 2008)**

Thomson provides a detailed overview of how schools change, describing why people engage in school change and documenting what happens when they do.

**Andrew Pollard et al, *Reflective Teaching: Effective and evidence-informed professional practice* (Continuum International Publishing Group Ltd, 2005)**

This book aims to support educators to reflect on their practice. It includes many activities similar to those in this pack and provided some of the ideas used.

## GET INVOLVED

We hope that these materials will encourage teachers and schools to take up and develop some of the ideas associated with Enquiring Minds. We would like to see a network of schools developing, trialling and sharing the approach. We would be very happy to discuss the ideas further, and hope to work closely with a number of schools to extend the project.

We can be contacted at [enquiringminds@futurelab.org.uk](mailto:enquiringminds@futurelab.org.uk).

## RESOURCES

The Enquiring Minds Guide provides practical advice for developing enquiry based approaches in schools:

[www.enquiringminds.org.uk/guide](http://www.enquiringminds.org.uk/guide).

An online video workshop is available to introduce Enquiring Minds, and includes examples of practice from a participating teacher:

[www.enquiringminds.org.uk/try\\_it/online\\_workshop](http://www.enquiringminds.org.uk/try_it/online_workshop).

Use our searchable database of digital tools to find resources and applications that can support enquiry-based learning:

[www.enquiringminds.org.uk/try\\_it/digital\\_tools](http://www.enquiringminds.org.uk/try_it/digital_tools).

Microsoft hosts an Innovative Teachers Network, a forum for discussion and sharing resources, where you can get in touch with other teachers trying out enquiry-based practice. If you would like to become part of the Enquiring Minds Community on the Innovative Teachers Network you will first need to go to the Innovative Teachers main page and sign up:

[uk.innovativeteachers.com](http://uk.innovativeteachers.com).

Then you should be able to access the Enquiring Minds community at:

[secure.uk.innovativeteachers.com/em/Pages/EnquiringMindsCommunity.aspx](http://secure.uk.innovativeteachers.com/em/Pages/EnquiringMindsCommunity.aspx).

## ABOUT MICROSOFT

Every child should have the opportunity to realise his or her full potential in the classroom, at home, and in the world at large. Empowered with the knowledge and skills that can only come from a good education, individuals are better equipped to enjoy a more fulfilling life and to thrive in the digital workplace. Microsoft believes that technology can be a powerful catalyst to improving teaching and learning for all and that we should play our part in broadening access to ICT and engaging and empowering students and teachers to use technology in creative and innovative ways. Through its Partners in Learning Programme, Microsoft has formed partnerships with Futurelab as well as with the Training & Development Agency for Schools; the Scottish Qualifications Authority; and National Assembly for Wales. These partnerships will help give today's children the best possible start in life. The Partners in Learning programme is designed to improve access to, and better use of, ICT in education. The programme already provides a wealth of resources and tools for teachers and schools. Further information can be found at: [www.microsoft.com/uk/education/PartnersinLearning](http://www.microsoft.com/uk/education/PartnersinLearning).

## ABOUT FUTURELAB

Futurelab is passionate about transforming the way people learn. Tapping into the huge potential offered by digital and other technologies, we are developing innovative learning resources and practices that support new approaches to education for the 21st century.

Working in partnership with industry, policy and practice, Futurelab:

- incubates new ideas, taking them from the lab to the classroom
- offers hard evidence and practical advice to support the design and use of innovative learning tools
- communicates the latest thinking and practice in educational ICT
- provides the space for experimentation and the exchange of ideas between the creative, technology and education sectors.

A not-for-profit organisation, Futurelab is committed to sharing the lessons learnt from our research and development in order to inform positive change to educational policy and practice.

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[www.enquiringminds.org.uk](http://www.enquiringminds.org.uk)