



Guidance

Curriculum and
Standards

Pedagogy and Practice: Teaching and Learning in Secondary Schools

Unit 5: Starters and plenaries

**Senior leaders,
subject leaders
and teachers in
secondary schools**

Status: Recommended
Date of issue: 09-2004
Ref: DfES 0428-2004 G

Designing lessons

Photo redacted due to third party rights or other legal issues



How to use this study guide

This study unit offers some practical strategies that teachers use during interactive whole-class teaching sessions, particularly during starters and plenaries. The techniques suggested are tried and tested; they draw on both academic research and the experience of practising teachers.

By working through this guide you can build your teaching repertoire step by step, starting with strategies that are easy to implement and moving on to those that will help pupils develop their skills still further. The unit contains 'reflections', to help you reflect on an idea or on your own practice, as well as practical tips and tasks to help you consider advice or try out strategies in your classroom. There are case studies to exemplify particular points, a summary of the research and some suggestions for 'next steps' and further reading. The final page invites you to reflect on the material and to set your personal targets for the future.

You can work through this unit in a number of ways:

- Start small; choose one class to work with. Ask another teacher to help by talking through what you intend to do and to act as a mentor.
- Work with another teacher or group of teachers who teach the same class. Work together on developing your approach to starter and plenary sessions. After three weeks compare notes. Discuss which strategies are the most effective and why.
- Find someone to pair up with and team-teach. Design the tasks together and divide the role of teacher in the lesson between you.
- Work with a small group of teacher-researchers within your school. Use the guide to help you focus your work as a professional learning community.
- Identify sections of the unit that are particularly relevant to you and focus on those.

There is space in this study guide for you to write notes and responses to some of the questions, but you may also find it helpful to keep a notebook handy. For some tasks, you might want to make an audio recording or video of yourself in action so you can review your work more easily. You could add this, along with any other notes and planning that you do as part of your work on this unit, to your CPD portfolio.

The evidence of work you gather in your portfolio could count as points towards accreditation of an MA, or could support your application for membership of a professional body, such as the General Teaching Council of England (GTCE). It could also be used to support an application to reach threshold or Advanced Skills Teacher status.

You will need access to [video sequence 5, Starters and plenaries](#), when working through this unit.

Starters and plenaries

Contents

Introduction	1
1 Starters and plenaries in the context of interactive teaching	2
2 What makes an effective starter?	4
3 What makes an effective plenary?	12
Summary of research	18
Next steps	21
Setting future targets	21
Appendix 1: Bloom's taxonomy	23
Appendix 2: Generic activities and routines for lesson starters	23
Resource 1	inside back cover

Introduction

Successful interactive starters and plenaries

During successful interactive starters:

- pupils engage fully in learning from the outset;
- they gain an understanding of the objectives and purposes of the lesson;
- there is a sense of pace;
- pupils spend most of their time on-task and focused on learning;
- there is an appropriate level of challenge that enables pupils to make good progress in their learning.

During successful plenaries:

- pupils are actively engaged;
- they are given opportunities to extend and deepen learning;
- they are required to reflect on and articulate how they learned;
- the teacher rounds off and summarises the lesson, assessing what has been accomplished in order to inform planning for future lessons.

Fundamental to managing pupil behaviour during starters and plenaries are rigorous planning and the appropriate use of a range of interactive teaching strategies.

Common issues

Many teachers rely on a relatively narrow range of teaching techniques. Some teachers are reluctant to use approaches which promote whole-class interactive involvement because of the risk of its leading to misbehaviour.

In relation to the starts and ends of lessons, these restrictions have a detrimental effect that is often compounded by poor planning. Ofsted has found that plenaries, especially, are not allocated enough time and are often the weakest part of the lesson.

Resolving the issues

Teachers can ensure their lessons include effective starters and plenaries by:

- planning effectively, deciding the specific purposes of the starter and plenary in relation to either lesson objectives or longer-term learning objectives;
- using a repertoire of interactive teaching strategies and techniques to inject pace and ensure activities are engaging and challenging;
- being aware of the techniques required to teach the lesson as planned as well as those which are useful to have 'at your fingertips' to shape and develop the learning as the lesson progresses.

Within this unit, starters and plenaries are used as a context for the development and refinement of whole-class direct interactive teaching.

1 Starters and plenaries in the context of interactive teaching

Effective teachers make good use of starters and plenaries in the context of interactive whole-class teaching to engage all pupils in constructive deep learning.

When pupils are merely reproducing or memorising given facts and information; accepting ideas and information passively; not being required to look for principles or patterns or to reflect on goals and progress – then they are only engaged in surface learning.

Pupils are engaged in deep learning when:

- they are trying to understand and make sense of material;
- they are relating ideas and information to previous knowledge and experience;
- they are not accepting new information uncritically;
- they are using organising principles to integrate ideas;
- they are relating evidence to conclusions;
- they are examining the logic of arguments.

Planned effective starters, as part of a series of episodes of learning, provide opportunities to engage pupils immediately with the learning objectives.

Task 1

Features of effective starters and plenaries

30 minutes

Read the [summary of research](#) on pages 18–20.

Highlight the text that identifies characteristics of starters and plenaries, including aspects of whole-class interactive teaching which might contribute to their success. Use one colour for starters and a second for plenaries.

On an A4 sheet of paper, draw a large Venn diagram: two circles with a large area of overlap. Label one circle 'starters' and one 'plenaries'. In the area of overlap, list the characteristics that are common to both. This section is likely to include many aspects of whole-class interactive teaching. In the starters circle, list the characteristics that are exclusive to effective starters and likewise for the plenaries circle.

As you construct the diagram, try to make clear in your own mind any differences between starters and plenaries.

Task 2

Evaluating your current practice

30 minutes

Using coloured pens or highlighters on the Venn diagram, 'traffic-light' the characteristics you have identified in relation to your current practice:

- red – aspects that you wish to improve or do not use often in your teaching;
- amber – aspects you know little about or have a particular interest in developing;
- green – aspects that have been identified as effective by someone observing you teach, or that you have focused on developing recently.

(Note: even if you do not currently use starters and plenaries, many aspects of their effective delivery will already form part of your planning and teaching repertoire.)

This activity should help you to set the agenda for your professional development in the use of interactive starters and plenaries.

Identify three or four professional development priorities from those you have traffic-lighted red and amber. Try to choose things which will have the greatest impact on the quality of the learning in your lessons. Keep these priorities in mind as you work through this unit.

Announcing the plenary activity for this unit

One way to make a plenary more effective and engaging is to give pupils forewarning about it. With this in mind, here is some advance notice: at the end of this unit you will be asked to repeat this traffic-lighting exercise in order to determine the progress you have made.

2 What makes an effective starter?

Starters exploit the prime learning time at the beginning of lessons when pupils are often at their most receptive and concentration levels are high. Effective starters are about purposeful, whole-class, interactive teaching involving all pupils. Teachers find starter activities particularly effective when they become part of the agreed routine of each lesson. Pupils arrive at the lesson expecting to begin work immediately, and the stress created by discipline issues (such as late arrivals and homework not being handed in) is reduced.

A well-balanced starter allows pupils to work without intervention from the teacher for some of the time, but also includes direct and specific teacher input. This involves directing the learning and moving it on, differentiating the level of challenge and ensuring that the main teaching points are conveyed clearly.

Successful starters:

- are planned as a discrete element of a lesson but will often contribute to the achievement of the lesson's objectives;
- have a clear purpose.

Starter activities tend to be most effective when they:

- engage all pupils;
- establish pace;
- provide challenge.

Informed judgements about engagement, pace and challenge call for the consideration of many aspects of teaching and learning.

Engagement

The challenge with starter activities is to get *all* pupils on-task quickly. Pupils' motivation and involvement in learning are influenced by several different factors. Engagement is more likely to happen if:

- the task does not outlast the concentration span of pupils;
- the task is immediately accessible to all or most pupils: starters that involve complex instructions or extended reading or writing activities are less likely to engage all pupils quickly;
- the task 'hooks' pupils' interest; this can be done by incorporating an element of mystery, curiosity, novelty or particular relevance;
- expectations are made clear, for example 'Each group should come up with at least five suggestions in the next 3 minutes';
- the teacher intervenes, where necessary, to help maintain engagement.

Pupils' ability to engage in learning is also influenced by their emotional state. Engagement is maximised in high-challenge, low-stress situations. This means that certain activities, for example handing in homework, are better deferred to later in the lesson.

Pace

Pace does not mean simply moving quickly through the lesson. It is about moving the lesson forward purposefully with the minimum number of distractions and amount of off-task time. Many of the points made in relation to engagement also help to maintain pace. Of particular relevance are:

- making tasks quickly accessible to all or most learners as soon as they arrive in the classroom;
- setting and adhering to clear expectations within given time frames;
- intervening, where necessary, to move the lesson forward.

The pace at which a starter activity proceeds can sometimes be improved if the teacher quickly demonstrates or models what is required.

Challenge

Starter activities that demand active engagement and high-level thinking provide pupils with a mental 'warm-up' for the lesson. Bloom's taxonomy provides a useful model for building challenge into lessons (see [appendix 1](#) for further details). The six levels in his model fall into two broad categories:

- activities and questions that involve remembering, checking on understanding and applying knowledge – Bloom calls these *knowledge, comprehension and application*;
- activities and questions that involve higher-order critical and creative thinking – Bloom refers to these as *analysis, synthesis and evaluation*.

More challenging starter activities will require pupils to apply, analyse, synthesise or evaluate information or ideas.

The relationship between challenge and engagement is an important one. If the learning activity is too easy, pupils become bored; if it is too hard, frustration reduces motivation.

Planning the starter activity

When planning the starter activity, consider first its purpose and then the devices you will use to engage and challenge pupils and to establish pace.

Starter activities can have a variety of different purposes.

They can enable you to:

- find out what pupils already know and understand, can do (skills) or are aware of (values and attitudes);
- mobilise what pupils already know for the benefit of others.

They can enable pupils to:

- connect with prior learning, either to build on what has been learned in previous lessons or to assimilate a new topic or idea;
- 'get to grips' with new learning, relating it to some or all of the lesson objectives;
- practise or apply subject or generic skills on a little-and-often basis;

- build knowledge, understanding and skills over a series of lessons.

As you develop your use of starter activities, you might find it helpful to use the following planning sequence.

- 1 Plan the task itself carefully.
- 2 Consider management and organisation so that the activity runs smoothly in the classroom.
- 3 Reflect on the interactive teaching skills necessary to maximise the learning.

The first two steps clearly need to be undertaken before teaching a starter. The third may seem less easy to plan in advance: you need to be responsive to the pupils and, to some degree, to be flexible in the techniques you use. However, it is helpful to consider before the lesson which specific teaching skills (such as questioning) you might use.

The tasks in this section follow this sequence of development for planning starter activities.

Task 3		
Observe and analyse effective starters 1		20 minutes
<p>Watch video sequences 5a and 5b, which show starter activities from different subject areas. First there is a Year 9 geography lesson, then a Year 8 mathematics lesson.</p> <p>For each example, consider why the teacher chose that particular starter for the lesson and class. Refer to the list of suggested purposes above.</p> <p>Now watch the video sequences again and think about the task design. Identify the features of each starter activity that contribute to the aspects of engagement, pace and challenge. You could construct a grid like the one below.</p>		
Starter	Aspect: engagement, pace or challenge	Task feature
Geography	Engagement - 'hooking' pupils' interest	Showed an intriguing photo
Mathematics		

Many different types of activity are suitable as starters; a list of suggestions can be found in [appendix 2](#). It is, however, important that the activity you select closely matches your identified purposes for the starter and can be related to your learning objectives and to your pupils' needs.

Task 4

Plan some starters

25 minutes

Use [resource 1](#) (inside back cover). Plan two or three contrasting starter activities for use with different classes. If possible, do this in collaboration with another teacher. At this point, focus your efforts on the design of the activity itself in terms of purpose, engagement, pace and challenge.

Once you have planned your starters, go back to the information about engagement, pace and challenge on pages 4–5 and refine the activities if necessary.

You will do further work on these starters in [task 5](#).

Managing and organising the starter

In planning the delivery of the starter activity, you will need to consider the organisation and management of the classroom, teaching resources and pupils. Below are some questions to use as prompts as you consider these aspects, along with some practical tips.

Organising and managing the ...	Considerations
Classroom	<p>What type of layout will best suit the starter and the class? You might consider:</p> <ul style="list-style-type: none"> • space around desks, allowing for group or paired work; • seating in a circle, a line, groups or pairs; • standing in a circle, a line, groups or pairs. <p>Practical tips</p> <p>It is important to arrange the classroom in a way that allows you to interact with all pupils and to monitor their levels of participation.</p> <p>Neat and well-organised classrooms allow you and the pupils to move around more easily so as not to cause distractions.</p> <p>The arrangement of the classroom has a significant effect on the way a lesson proceeds; the benefits of a pacy and engaging starter will be lost if you have to begin by rearranging the furniture.</p>

[Table continues](#)

<p>Teaching resources</p>	<p>What is the best location for the starter activity resources and/or instructions? You could have them:</p> <ul style="list-style-type: none"> • on the OHP or whiteboard; • on the pupils' desks; • collected from the teacher by conscripts or volunteers. <p>Practical tips</p> <p>Presenting and labelling the materials carefully will make them easier for pupils to use and so help the activity to run smoothly. For example, you might:</p> <ul style="list-style-type: none"> • number resources handled by the pupils for easy reference; • print sets of sorting cards onto different colours so that they do not get mixed up. <p>Having spent time on creating your starter activity, you may want to extend the life of the resources by, for example, printing them on card or laminating. Remember, however, that you might want to adapt and amend the activity once you have tried it, so consider trialling a 'low cost' version first.</p> <p>Check in advance the availability of necessary equipment, for example OHP, mini whiteboards, video and television set.</p>
<p>Pupils</p>	<p>How should pupils be organised to maximise the learning from the starter activity? You might want to arrange them so that:</p> <ul style="list-style-type: none"> • they can work interpersonally in groups or pairs, or intrapersonally through self-reflection on a task; • pupils who might not readily access the task are supported in their learning by other pupils or a teaching assistant; • pupils who arrive late are absorbed easily into the task. <p>Practical tips</p> <p>Collaborative activities are often more productive if the teacher selects the groupings or pairs. This is best done before the lesson begins by, for example, placing pupils' names on desks or on a plan of the classroom shown on an OHT. (See unit 10 Group work for the effects of different pupil groupings.)</p> <p>Give thought to your deployment of support staff. They will need to know about the purposes of the task and ways in which they might give discreet help to pupils who need support.</p> <p>Starters are most effective when they become part of the agreed routine of each lesson because pupils arrive expecting to begin work immediately. Establish them at the start of the year across the whole department for the maximum benefit to pupils' behaviour.</p> <p>Starters can easily be 'derailed' by late arrivals or disputes about pupil groupings; this can usually be prevented by careful planning.</p>

Task 5

Consider management and organisation

30 minutes

Taking the starter activities you designed in [task 4](#), on [resource 1](#), plan the management and organisation of the lessons in which you will teach them. Consider:

- the prompts and points in the grid above;
- ideas you picked up from the three lesson observations in [task 3](#). You might like to watch the video sequences again.

If possible, work with another teacher who teaches the same unit of work, and compare notes.

Developing whole-class direct interactive teaching skills

High-quality interactive teaching is oral, collaborative and lively. It is a two-way process in which pupils are expected to play an active part by answering questions, working together at appropriate times, contributing points to discussions, and explaining and demonstrating their methods, conclusions and solutions to others in the class.

You can achieve effective interactive teaching and active learning by drawing on a range of strategies and techniques, and incorporating them into the planning of a lesson as a series of planned learning episodes.

Directing and telling: Ensure that pupils know what to do; draw attention to points where they should take particular care.

Demonstrating: Give clear, well-structured demonstrations; use appropriate resources and visual displays.

Explaining and illustrating: Give accurate, well-paced explanations and refer to previous work or methods.

Questioning and discussing: Use open as well as closed questions that are planned to ensure the involvement of girls and boys of all abilities; give pupils time to think before inviting an answer; respond constructively to their answers.

Exploring and investigating: Ask pupils to pose problems, suggest a line of enquiry to investigate for themselves, or identify anomalous results; equip pupils with the skills required to plan and carry out tasks independently.

Consolidating and embedding: Provide varied opportunities to practise and develop newly learned skills; ask pupils to talk through processes.

Reflecting and evaluating: Discuss pupils' justifications of the choices they have made; identify errors, using them as positive teaching points and talking about any misconceptions that led to them.

Summarising and reminding: Review what has been taught and what pupils have learned; identify and correct misunderstandings; invite pupils to present their work.

These teaching strategies and techniques are equally applicable to all parts of a lesson though some may be more relevant to starters and some to plenaries.

Reflection

The list of interactive teaching strategies and techniques above clearly creates an agenda for professional development throughout your career. Focus on one or two specific aspects that you want to improve. Use the traffic-lighting method of prioritising from [task 2](#).

Task 6

Observe and analyse effective starters 2

20 minutes

[Video sequences 5c, 5d and 5e](#) show three further starter activities from different subject areas: a Year 7 science lesson, a Year 9 history lesson, a Year 7 English lesson.

Watch the video sequences and identify exactly how the teacher injects engagement, pace and challenge into each starter activity. Write down each approach on a separate sticky note. (You can use the list of interactive teaching skills on page 9 as prompts.)

Which approaches occurred most often? Which did you think were most effective? Sort approaches by arranging the sticky notes in a line, starting with the most effective.

Use this information, together with the areas you identified as your professional development needs in [task 2](#), to decide on a teaching-skills focus for the classroom-based assignment that follows. You will teach the starters you planned earlier, giving specific attention to improving the teaching skills you have identified.

Task 7

Classroom assignment: teach your starters

1 hour

Look at the planning for starters you did in [tasks 4 and 5](#) on the completed [resource 1](#).

Think about how you can build the use of whole-class interactive teaching skills into the plan. For example, your use of questioning is likely to have a significant impact on the pace and levels of engagement and challenge in the lesson, so carefully plan some 'key' questions and their use.

Teach the planned lessons with the starter activities. If possible, make an audio recording of your lesson or have another teacher observe you so you can reflect on it later.

Reflect on how the lessons went and consider how well your pupils responded. List at least five things that:

- went particularly well and that you will build into your future practice;
- you want to change or improve, and suggest how you can do this.

Try to include aspects of task design, your management of the activity and the interactive teaching skills you used.

Practical tip

Evaluating your teaching

It is difficult to analyse and evaluate your own teaching and the impact it has on learning by simply reflecting on 'how a lesson went'. Consider either making a video or audio recording of your lesson or asking a colleague to observe and then to provide some focused, constructive feedback.

Practical tips

Troubleshooting

The following list of questions and answers may help you pinpoint the source of any problems and find possible solutions.

Q Was the starter too long or did it take over the whole lesson?

A Be rigorous in sticking to your timings, even if you and the pupils are really enjoying the starter activity. If it helps, use a pupil as a timekeeper.

Q Did it lose pace or direction?

A Make sure you establish a definite focus and be clear about what you want the pupils to achieve. Deal decisively with distractions.

Q Was there a lack of clear learning outcomes?

A This usually results from lack of clarity over the purpose and specific objectives of the activity. Careful planning should overcome this.

Q Were pupils' oral answers fairly short or low-level responses?

A Skilful teacher questioning coupled with insistence on thinking time can make a significant difference.

Q Was it difficult to provide for pupils' different levels of ability?

A Again, skilful questioning can enable you to support the less able and extend the more able. Target the support of a teaching assistant if you have one. You can also experiment with pupil groupings by sitting more able pupils next to those who might find the activity difficult. Alternatively, add extra challenge for some pupils by increasing the complexity or sophistication of the activity.

Q Was the activity 'derailed' by practical problems such as the arrival of latecomers?

A Use activities and routines which latecomers can quickly assimilate and join (e.g. the initial task in the starter could be explained briefly on a card which can be picked up and read by each pupil as they enter the classroom, even if they arrive late).

Q Are you concerned that starters may become a boring routine?

A A lot of different approaches lend themselves to starter activities. [Appendix 2](#) suggests a few. Make sure you plan for variety and that you make them active.

3 What makes an effective plenary?

Plenaries, whether they happen during the lesson or at the end, should:

- occur at a strategic moment in the teaching sequence;
- draw together the learning of the whole group and the individual;
- summarise and take stock of learning so far;
- consolidate and extend learning;
- direct pupils to the next phase of learning;
- highlight not only *what* has been learned but also *how* it has been learned;
- help determine the next steps in learning.

Plenaries need to be planned as part of the planned learning episodes (spontaneous plenaries tend to be less effective). They should link carefully to the objectives, outcomes and success criteria of the lesson as a whole.

As with starters, active, engaging, challenging and well-paced learning can be achieved in plenaries through:

- carefully planned tasks;
- planned management and organisation of the classroom;
- use of appropriate interactive teaching skills.

Again, the tasks in this section follow this sequence of development for planning and teaching plenary activities.

Planning the plenary activity

When planning the plenary activity, first consider its purposes – there are likely to be several in any one lesson. Then choose a task that will involve all pupils in actively processing any relevant information from the lesson. Finally, consider the interactive teaching skills you need ‘at your fingertips’ in order to shape and develop a successful plenary.

As with starters, plenaries can be used for a range of different purposes.

They can enable you to:

- review the lesson’s objectives – taking stock of what the class has covered in a task or a sequence;
- be diagnostic – assessing both individual and collective learning as well as progress, in order to plan accordingly;
- recognise and value the achievements of individuals and the class;
- stimulate interest, curiosity and anticipation about the next phase of learning.

They can enable your pupils to:

- remember what has been learned;
- crystallise their thoughts about what has been learned;

- deepen and extend their learning;
- see the 'big picture', putting what has been learned in the context of past and future learning;
- articulate and communicate their learning;
- gain a sense of achievement in the successful completion of a task(s);
- understand the progress made and revise or set new personal targets;
- consider *how* they have learned and the learning strategies they used – in terms of both individual and group thinking processes;
- develop a language for discussing thinking and learning and form a habit of reflection about learning;
- consider how thinking and learning can be 'transferred' to other contexts;
- perceive themselves as learners.

Although many of these purposes are concerned with what pupils do, their achievement depends on your planning and orchestration of the plenary.

Task 8

Observe and analyse effective plenaries 1

30 minutes

Video sequences 5f, 5g and 5h show three plenaries from different subject areas, including an art teacher reflecting on her use of plenaries. First there is a Year 7 art lesson, then a Year 9 history lesson, and finally a Year 7 science lesson showing two plenaries.

Before watching the video sequences, you may find it helpful to revisit your work on starters and recap on the ideas about task design, management and organisation and whole-class interactive teaching skills.

Watch the video sequences and for each plenary identify the purposes, for both the teacher and the pupils, using the list above to help. In each case, ask yourself: Why did this teacher plan this plenary, for this lesson and for this class? In the first example, the teacher discusses her use of the plenary and, in doing so, models how a teacher might reflect on their practice.

Now watch the video sequences again. This time:

- note what strategies each teacher uses to fulfil the identified purposes for the plenary – be clear about whether they relate to task design, to the management and organisation of the classroom, resources and pupils or to the teaching approaches used;
- analyse how each teacher gains evidence of the effect of the lesson on pupils' learning.

Some of the plenaries shown in the video sequences centre on tasks and in some the teacher leads the learning from the front. When beginning to develop the use of plenaries, teachers sometimes find it helpful to start by building the plenary around a task. This might be because they lack confidence in using whole-class interactive teaching skills or because the pupils lack the skills needed to engage in this type of learning. This section therefore offers one idea for a task-based plenary, but the emphasis is on developing the skills needed to lead plenaries from the front.

Many different types of activity lend themselves to the various purposes for plenaries and to meeting lesson objectives. Here are three examples that can be used in any subject.

Golden rules: In pairs, pupils construct five ‘golden rules’ for the activity they have carried out during the lesson. Each golden rule is written on a separate card or sticky note. The activity then proceeds by ‘snowballing’: each pair joins another to make a group of four. The group put their golden rules together and decide on which five (or other number) are the most important. If time allows they can snowball again into groups of eight. Finally, the teacher takes whole-class feedback from one nominated spokesperson from each group.

This activity helps pupils remember and crystallise what has been learned, whilst encouraging them to see the ‘big picture’. It also allows pupils to articulate and reflect on what and how they have learned. By observing the group work and taking feedback, the teacher can assess the quality of individual and collective learning against the learning objectives and can then plan accordingly. ‘Golden rules’ is most suitable for skills-focused or process-focused learning objectives.

Traffic lights: The teacher refers to the lesson objectives and then asks pupils:

- what they understand or can do well (pupils hold up green cards);
- what they are not 100 per cent sure of (amber cards);
- what needs further explanation or attention (red cards).

In this activity, pupils review the lesson’s objectives and take stock of what the class has achieved within a task or a sequence. It can be used during a lesson or at the end and is a good way to inform planning. It is suitable for knowledge-based and skills-based objectives but is less useful for objectives that relate to more complex understanding or to values and attitudes. For this type of objective, more detailed success criteria are needed to enable pupils to evaluate their level of success.

Phone a friend: In pairs, pupils write down three questions they would like to ask as a result of what they have learned in the lesson. At least two must relate to the objectives of the lesson. Pupils are then selected by the teacher to ‘phone a friend’ in the class who then attempts to answer the question. Alternatively, the teacher may choose to ‘take’ some of the more challenging questions or to ‘log’ them (on an OHT or flipchart) for a future lesson.

This activity encourages pupils to evaluate their success or progress against the lesson objectives. They also have the opportunity to communicate and possibly extend or deepen their learning. It allows the teacher to be diagnostic, to assess the quality of what has been learned and to identify misconceptions or areas of weakness. The teacher can also build anticipation for the next phase of learning.

Task 9

Plan a plenary

30 minutes

Design a plenary for one of your lessons. The activity could be task-based or involve whole-class teaching. If possible, work with another teacher who teaches the same unit of work.

Try to use one of the approaches described above or shown in [video sequences 5f, 5g and 5h](#). Use the following prompts to help.

- What are the key aspects of learning you wish to identify?
- What would be an appropriate activity? Choose one that enables your pupils to demonstrate the outcomes of their learning and allows you to note the progress made. What whole-class interactive teaching skills will you use to bring the learning of individuals and groups to the attention of the whole class?
- What is the purpose and the link to the lesson objectives?
- When will it take place in the lesson and how long should it take?
- What specific preparations do you need to make for the organisation and management of your classroom, for the preparation of teaching resources and for pupil grouping?

Teach the lesson with the planned plenary. Reflect on how it went and evaluate the pupil response. If you planned the work in collaboration with another teacher, compare your evaluations.

Developing whole-class interactive teaching skills

The following whole-class interactive teaching approaches facilitate the effective organisation of plenary activities and help to ensure they achieve their purposes:

- questioning and discussing;
- consolidating and embedding;
- summarising and reminding;
- reflecting and evaluating.

Refer back to page 9 for more detail on each of these.

Task 10

Observe and analyse effective plenaries 2

20 minutes

[Video sequence 5i](#) shows a Year 8 geography lesson.

The teacher uses the plenary to debrief the class following the use of a thinking-skills strategy called 'maps from memory'. Pupils have worked in groups to build up a map from an original one that the teacher has shown them. Each pupil from the group has seen the original in turn and at least once, but for only 10 seconds on each occasion.

[Task continues](#)

The strategy encourages pupils to cooperate with each other by being systematic in their use of time and in their method of quickly reading the visual information on the map. Although the main part of the lesson is based on this specific task, the plenary itself is being led from the front by the teacher. She focuses on how the pupils have learned, including the strategies they used both as individuals and as part of a group.

Watch the video sequence and make notes on:

- the information the teacher has collected from the main activity to inform and direct the learning in the plenary (how might she have collected this information?);
- her whole-class interactive teaching approaches, particularly where and how she:
 - uses questions;
 - manages the discussion;
 - consolidates and embeds the learning;
 - summarises and reminds;
 - encourages pupils to reflect on how they've learned (metacognition);
- her use of the whiteboard as well as what she says to the class;
- how she makes connections with prior learning and encourages the transfer of learning by considering future uses for the skills pupils have acquired;
- the purpose and value of the homework activity.

Notice that the teacher uses the plenary to help pupils identify not only what they learned but also how they have learned it (metacognition). She also explores the link between the learning in this lesson and learning in other contexts by encouraging the pupils to apply what and how they have learned to a new situation (transfer).

Task 11

Classroom assignment: teach a plenary

50 minutes

Design a plenary for another lesson. This time, aim to plan and teach a plenary which is predominantly led by you and in which you will use a variety of whole-class interactive teaching skills. Use the following prompts to guide your planning.

- On what key aspects of learning will the plenary focus?
- What is its purpose and how does it link to the lesson objectives?
- When will it occur in the lesson and how long will it take?
- What specific preparations are needed for the organisation and management of your classroom, for teaching resources and for pupil grouping?

[Task continues](#)

- Which whole-class interactive teaching skills will be the best to use? How will you use questioning and manage the whole-class discussion? How will you consolidate and embed the learning; summarise and remind; encourage pupils to reflect on and evaluate what (and, if you wish, how) they have learned?
- How will you use the whiteboard, OHT or flipchart?
- What prepared questions do you need?

After you have taught the lesson, reflect on how the plenary went and consider how well your pupils responded. List at least five things that:

- worked particularly well and that you will build into your future practice;
- you want to change or improve, and suggest how you can do this.

Try to consider aspects of task design, your management of the activity and the interactive teaching skills you used.

Practical tip

Give advance warning

Tell pupils at the beginning of the lesson what the plenary activity will involve so that they have time to think about their responses. Be clear about what you expect to see or hear. Remind them of this as the lesson progresses.

Practical tips

Troubleshooting

The following list of questions and answers may help you pinpoint the source of any problems you have had in teaching plenaries and identify possible solutions.

Q Did you run out of time?

A Is it a case of allowing more time for the plenary in the future and not allowing the main section of the lesson to over-run? You could use a pupil as a timekeeper.

Q Did the pupils take the plenary seriously?

A Did you signal the importance of the plenary at the beginning of the lesson? You could forewarn a few of the pupils and tell them that they are involved in or have charge of the plenary. In any case, this aspect is likely to improve as plenaries feature more regularly in your lessons and pupils come to accept what is expected.

Q Was it difficult to get their attention?

A Consider using a more attention-grabbing strategy in order to re-engage them. You also need to be assertive in signalling the purpose of the plenary so that pupils value it as an essential part of the lesson.

Tips continue

- Q Did the 'show and tell' sessions result in low-level exchanges?
- A Be explicit and demanding – share the criteria for high-quality feedback. Make use of more probing questioning. Demonstrate high-quality responses early on so that pupils know what a 'good' response looks like.
- Q Did the learning remain implicit, not being clearly expressed?
- A You may need to be more explicit, asking questions such as 'What have we learned today?' Try to get pupils to articulate the main things they did to meet the lesson objectives.
- Q Did you still manage to say too much?
- A If pupils are used to you doing all the work, they'll be happy to let you carry on! Try giving them part of the answer (say only the key points) and then ask them to take the ideas further, for example giving more explanation or applying the ideas in another context. Ask different groups of pupils to comment on different aspects of the lesson.

Task 12

The plenary

10 minutes

Go back to the Venn diagram you constructed in [task 1](#). Write in the appropriate part of the diagram any additional characteristics of starters and plenaries that you have become aware of as a result of working through this unit.

Now repeat the traffic-lighting activity that you undertook in [task 2](#). This will help you to reflect on the progress you have made.

Which aspects that you originally coloured red would you now class as amber or even green? Which of those you classed as amber are now green? Which aspects do you think you should develop next?

Summary of research

Structuring learning

Research studies frequently refer to the vital importance of structuring learning. Mortimore et al. (1988) concluded that the key classroom factors contributing to effective outcomes were structured sessions, intellectually challenging teaching, a work-orientated environment, communication between teacher and pupils and a limited focus within the sessions.

Interactive whole-class teaching

Research evidence suggests that interactive whole-class teaching makes highly effective use of teacher time. In whole-class teaching, teachers tend to ask more challenging questions and pupils are usually more actively engaged and attentive.

Starters and plenaries

Starters

Research findings and practical experience tell us about the importance of lesson starts. They are recognised as having significant and direct impact on the quality of the learning both within the starter itself and in the rest of the lesson.

The use of the start of the lesson to 'hook the learner' is developed in Phillips (2001). He explores the 'tight' relationship between the initial activity and the ensuing lesson and enquiry. Phillips describes the use of a wide range of initial stimulus materials (ISMs) such as visual sources, text and stories, and music. The initial activity can not only arouse pupils' interest at the start of the lesson but can also act as a 'connector' with other episodes and lessons.

Starters also play a very important role in 'connecting the learning'. This is an essential aspect of planning since, in simple terms, we learn largely, though not exclusively, through what we already know. This is summarised by Alistair Smith (1998).

Finally, Muijs and Reynolds (2001) comment on the importance of management techniques for lesson starts: 'Research suggests that teachers can keep disruption to a minimum by instituting a number of set procedures for dealing with lesson starts. For example, write instructions on the board before the pupils come in so they can get started with the lesson immediately, train pupils to take the roll and read instructions, have certain activities that students can start doing as soon as they come into the classroom.'

Plenaries

Plenaries provide an opportunity to draw together, summarise and direct learning, so that pupils focus on what is important, what they have learned, the progress they have made and their next steps. Plenaries can occur part-way through a lesson but should always feature at the end of a lesson. Debriefing is a very important part of a plenary as it encourages pupils to explore and extend their learning. It is where what has been learned is embedded.

Fisher (2002) identifies three main intentions for the debrief:

- pupils are asked to give answers and explain how they arrived at them and the skills they needed to use;
- in the process of explaining, pupils have to develop and use appropriate language;
- they can then be encouraged to see how these processes can be used in other areas.

Adapted from Fisher, P. (2002) *Thinking through history*. Chris Kington Publishing. 27 Rathmore Road Cambridge CB1 7AB. Tel. 01223 412260. Reproduced by kind permission of the publisher.

One important aspect of the plenary is 'bridging', when the teacher makes a link between the learning in that lesson and learning in another or to the everyday real world. Mayer and Wittrock (1996) refer to the process by which pupils apply what they have learned and the way they learned it to a new situation: in short, teachers plan for bridging so that pupils may transfer what they have learned. Fisher (2002) develops the link between discussion, language and transfer, seeing the

opportunity for pupil discussion, from planning through strategy to evaluation, as crucial for pupils' development of the appropriate language.

Planning for the plenary is very important, but not to the point where it becomes inflexible and thus limits the opportunities for the pupils to identify what they learned and, where applicable, how they learned it.

It is useful to note the comment of Muijs and Reynolds (2001) about planning and pupil behaviour: 'Effective teachers experience fewer problems with ending the lesson than less effective teachers, through methods such as planning and pacing the lesson to leave sufficient time for activities at the end.'

References

- Fisher, P. (2002) *Thinking through history*. Chris Kington Publishing. ISBN: 1899857443.
- Hughes, M. (1999) *Closing the learning gap*. Network Educational Press. ISBN: 1855390515.
- John, P. (1991) 'The professional craft knowledge of the history teacher'. *Teaching History* 92, 20–25.
- Leat, D. and Lin, M. (2003) 'Developing a pedagogy of metacognition and transfer'. *British Educational Research Journal* 29, 385–415.
- Leat, D. and Nichols, A. (1999) *Mysteries make you think*. Geographical Association. ISBN: 189908570X.
- Mayer, R. and Wittrock, M. (1996) 'Problem-solving and transfer'. In D. Berliner and R. Calfee (eds) *Handbook of educational psychology*. Simon and Schuster Macmillan. ISBN: 0028970896.
- Mortimore, P. et al. (1988) *School matters*. Open Books. ISBN: 0520065026.
- Muijs, D. and Reynolds, D. (2001) *Effective teaching: evidence and practice*. Paul Chapman. ISBN: 0761968814.
- Phillips, R. (2001) 'Making history curious: using initial stimulus material (ISM) to promote enquiry, thinking and literacy'. *Teaching History* 105 (December).
- Scheerens, J. (1992) *Effective schooling: research, theory and practice*. Cassell. ISBN: 0304325066.
- Smith, A. (1998) *Accelerated learning in practice*. Network Educational Press. ISBN: 1855390485.

Next steps

This unit has explored an aspect of teaching and learning. You may wish to develop your ideas further, to consolidate, apply ideas in different contexts or explore an aspect in more depth and innovate.

Reflect

What have been the key learning points for you?

What has been the impact on pupils?

Here are some suggestions as to how you may develop practice further:

- Review your questioning techniques using [unit 7 Questioning](#). Try capturing your questions and the pupils' responses on a video or audio recording to see whether you demand high levels of thinking. Plan a sequence of questions in response to your findings.
- Analyse your starters or plenaries to see whether the level of challenge could be higher. You could use Bloom's taxonomy ([appendix 1](#)) or the National Curriculum thinking skills (See [unit 7 Questioning](#) and [unit 16 Leading in learning](#)). Design a sequence of activities which moves the learning towards a more demanding outcome.
- Continue to plan your plenaries in more detail, giving high priority to being clear about their purposes. Also ensure that the activities you choose clearly serve those purposes.
- Consider the ways in which you can make more purposeful use of group-work strategies within your whole-class interactive teaching. (See [unit 10 Group work](#).) Plan for and use one of the strategies as part of a starter or plenary activity.

Setting future targets

Having considered your next steps, you may wish to set yourself some personal targets to support your own continuing professional development. You could use these ideas to inform your performance management discussion.

-
-
-

When setting targets for the future you may want to discuss the possibilities with a colleague or your line manager.

Whatever you decide to do, you will need to consider the following.

- What are your objectives for the next year?
- What are the expected outcomes in terms of pupils' achievements?
- What strategies will you employ to achieve these outcomes?
- How will you track progress over the year?
- How will you know whether you have been successful or not?

Appendix 1

Bloom's taxonomy

Knowledge: This is the most straightforward or basic level. Here pupils are simply asked to identify, recall, list or describe things to show what they have remembered.

Comprehension: This involves understanding information and making sense of ideas by making meaningful links between related concepts. Here pupils are required to explain and interpret what they know at a basic level, to distinguish between things and to summarise what they know. In order to complete tasks at this level, pupils must first know the information at the first level.

Application: This requires pupils to make use of what they know by applying their knowledge in a practical way. They can experiment, sketch, make a model or construct and apply rules, principles and formulae to a new problem. Pupils must first know and understand information before applying it.

Analysis: This involves pupils breaking what they know into component parts so that they can see the relationships between them. Here pupils may group or categorise information, compare and contrast, analyse, research or survey. They can distinguish between fact and opinion, a fact and an inference, an advantage and a disadvantage, a cause and an effect and a good reason and a poor reason. Pupils cannot analyse without having remembered, understood and applied information.

Synthesis: Synthesis and evaluation are equal levels of thinking. Synthesis involves pupils in thinking creatively, seeing new ways of doing things, linking concepts in unusual and flexible ways, or developing something that is original. Before creating something new, pupils must have and understand the information and have applied and analysed the component features of the idea, issue or topic.

Evaluation: This involves discriminating between ideas and making judgements about value, based on reasoned arguments. Evaluation requires pupils to think critically: to assess the quality, relevance, reliability, truth, accuracy and effectiveness of information or products. Before students can critically evaluate, they need a good knowledge and understanding of the content as well as experience in applying and analysing what they know.

From Benjamin S. Bloom et al. *Taxonomy of Educational Objectives*. © 1984. Published by Allyn & Bacon, Boston MA. Copyright © 1984 by Pearson Education. Adapted by permission of the publishers.

Appendix 2

Generic activities and routines for lesson starters

Show me: Pupils are provided with some means of showing the teacher their response to a series of questions, using pre-printed cards, hand-written cards or card fans that can be opened and displayed in different combinations. These visual prompts can be held up easily, and if laminated, can be used repeatedly. The pupils' choice is usually limited, for example to an either/or choice such as 's' or 'es' as the correct plural suffix for words the teacher says. This helps to maintain the pace. Show-me activities require pupils to make decisions quickly without picking up aural clues directly from those around them. For this reason, they are ideal opportunities for on-the-spot, speedy assessment: it will be evident which

pupils are making incorrect choices when they hold their cards up and the teacher can spot equally well those who are a little hesitant.

Time out: These activities provide pupils with a few moments to think, talk, write, read or work in some other way without teacher intervention. They provide useful opportunities for pupils to collaborate and support one another and can help to ensure that it is not only the most vocal pupils and the quickest thinkers who eventually contribute to whole-class discussion. Time out may last from just a minute's discussion time with a partner to several minutes for an activity requiring higher-order thinking such as evaluation, justification or analysis. Examples of time-out activities include hypothesise, summarise, draft/quickwrite, frame ideas or questions, gather or collate, discuss/decide.

Continuum: These activities involve pupils in establishing a sequence or continuum across the classroom, where the two ends of the line represent either extremes on a continuum or totally opposed points of view. The continuum could be based on individual pupils' points of view on a stimulus such as a short piece of text or photograph provided by the teacher or something generated by the pupils. They are invited to form a line and then to 'negotiate' their way up or down the continuum by talking to the pupil next to them. The teacher then debriefs the activity by asking pupils to justify their position on the continuum. Examples of continuum activities include:

- in English, science, geography or PSHE, a continuum based on pupils' views about the use of nuclear energy;
- in art, a continuum from 'abstract' to 'representational' or 'realistic', using examples of work by well-known artists or by the pupils themselves;
- in geography, a continuum from 'more developed' to 'less developed', using photographs or different development indicators such as birthrate;
- in mathematics, a number sequence where some numbers are expressed as fractions, some as decimals and others as symbols.

Odd-one-out: This activity encourages pupils to think about the characteristics of things and develops the skill of classification. Pupils are provided with a set of words, short phrases, numbers or images on separate numbered cards. The teacher lists three or four cards for the pupils to pull out from the others, then asks them to identify the odd-one-out and, more importantly, to justify their choice. Ideally, the odd-one-out in any three or four cards could differ according to the criteria being used to classify the cards. The activity continues, with the teacher questioning pupils about the reasons for their odd-one-out before going on to select different groups of cards from the set.

5Ws: This approach encourages pupils to ask their own questions and to consider the underlying logic of asking particular kinds of questions, in a particular way and in a particular order. It is not only about questioning. In framing the questions for themselves, pupils are already considering the answers they are looking for. Consequently it is an 'advance organiser' for information and ideas which may then be explored further in the main part of the lesson. Pupils are asked to come up with '5Ws' – five questions using the stems *who*, *what*, *when*, *where* and *why*, in response to a stimulus. You can use various types of stimulus – a quotation, a cartoon or graph, a mystery object or photograph, or content from a previous lesson. 5Ws is often most productive when pupils have the opportunity to take 'time out' in pairs or groups prior to feeding back their ideas to the whole class.

Resource 1: Task 4 Plan some starters / Task 5 Consider management and organisation

Managing and organising		Pupils			
		Teaching resources			
		Classroom			
Planning		Refined starter (purpose, engagement, pace and challenge)			
		Initial starter			

Copies of this document may be available from:

DfES Publications

Tel: 0845 60 222 60
Fax: 0845 60 333 60
Textphone: 0845 60 555 60
e-mail: dfes@prolog.uk.com

Ref: DfES 0428-2004 G

© Crown copyright 2004

Produced by the
Department for Education and Skills

www.dfes.gov.uk

If this is not available in hard copy it can be
downloaded from:

www.standards.dfes.gov.uk

The content of this publication may be reproduced free of charge by schools and local education authorities provided that the material is acknowledged as Crown copyright, the publication title is specified, it is reproduced accurately and not used in a misleading context. Anyone else wishing to reuse part or all of the content of this publication should apply to HMSO for a core licence.

The permission to reproduce Crown copyright protected material does not extend to any material in this publication which is identified as being the copyright of a third party.

Applications to reproduce the material from this publication should be addressed to:

HMSO, The Licensing Division, St Clements House,
2–16 Colegate, Norwich NR3 1BQ
Fax: 01603 723000
e-mail: hmsolicensing@cabinet-office.x.gsi.gov.uk

Disclaimer

The Department for Education and Skills wishes to make clear that the Department and its agents accept no responsibility for the actual content of any materials suggested as information sources in this document, whether these are in the form of printed publications or on a website.

In these materials icons, logos, software products and websites are used for contextual and practical reasons. Their use should not be interpreted as an endorsement of particular companies or their products.

The websites referred to in these materials existed at the time of going to print. Tutors should check all website references carefully to see if they have changed and substitute other references where appropriate.