

DfES xxxx/xxxx

Foundation subjects: design and technology example 1: background information

1. This design and technology department is in a mixed 11–18 Comprehensive School. The number of pupils on roll is 1700. The school is located in a prosperous district on the edge of an outer suburban area near to a large city. Its pupils come from a wide catchment area which includes areas of extreme social deprivation. The attainment level of the annual intake of pupils to Year 7 is just above average. The number of pupils entitled to a free school meal is below average for a school of this size.
2. The teacher who is leading the Foundation Subjects developments in the school is the deputy team leader whose specialist area is textile technology but teaches across all material areas. She has taught in the school for four years. The design and technology team leader has been in post for 12 years and specialises in resistant materials. There are eight full-time specialist staff and two part-time food technology teachers. About 80% of Key Stage 3 teaching takes place within the individual teachers' subject specialisms. The team is an effective blend of experience and youth but there has been no tradition of collaborative planning across the department as a whole.

Note:

Paragraph 1 above is based on the most recent Ofsted report. The only edits were to remove anything which identified the geographical location of the school.

Paragraph 2 is contextual information, provided by the consultant, which is felt to be relevant to the interpretation of the audit.

Key Stage 3

National Strategy

Heads of Department

Status: Recommended

Date of issue: 02/01
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Auditing a subject in Key Stage 3: design and technology

Name of School:	N/a
Headteacher:	Mr Patel
Subject being audited:	Foundation subjects: design and technology audit and action plan example 1
Senior manager with oversight of this subject:	Mrs Harrison
Head of department	Miss Brunel
Other staff with responsibility, eg. literacy co-ordinator or SENCO:	
Date of completion of audit:	June 2002

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Introduction

This booklet is to help a department or faculty to decide on priorities for strengthening its work and to draw up an action plan to improve standards in the subject. It can be used to supplement the whole-school development plan.

The audit is best carried out in the summer term when a wider range of information on pupils' performance is available. A senior manager and the head of department or faculty are likely to lead it, but all staff in the department should be included in discussions and contribute to the gathering of evidence.

Many of the judgements needed can be made through discussion in two or three departmental meetings. Others will arise from analysing test and examination data, looking at samples of pupils' work and marking, referring to records of pupils' progress and from observing lessons. Information from lessons that have already been observed as part of the school's normal routines can be used, perhaps supplemented by observation of a further small sample of lessons across Key Stage 3. The gathering of evidence, especially lesson observations and scrutiny of pupils work, will need to be planned carefully over a few weeks, since it may require the equivalent of two days of the head of department's time.

The use of best-fit phrases and tick boxes throughout the booklet helps to keep recording to a minimum. Once the possible points for action in each section have been determined, the head of department can complete the action plan. Senior managers and departmental staff will then have a clear view of the overall developments that are needed and how best to use the professional support of a Key Stage 3 consultant.

Standards in Key Stage 3

Based on last year's KS3 test results and teacher assessments, how do the overall standards achieved by pupils compare with national averages? You could refer to the benchmark information in the DfES's Autumn Package.

Tick boxes or enter grades as appropriate.

All subjects

Overall trends over three years.

Trends over three years	risen significantly	risen a little	stayed about the same	fallen
Over the last three years, pupils' attainment in the subject on entry to Year 7 has:			✓	
Over the last three years, pupils' attainment in the subject by the end of Key Stage 3 has:			✓	This year showed that more boys achieved level 4 than the previous year.

Core subjects only

Percentage of all pupils attaining level 5 and above

Attainment in KS3 tests:	National averages		
	above	in line	below
Proportion (%) of all pupils achieving level 5 and above was:	✓		
Proportion (%) of boys achieving level 5 and above was:	✓		
Proportion (%) of girls achieving level 5 and above was:	✓		
Proportion (%) of all pupils achieving level 6 and above was:	✓		
Proportion (%) of boys achieving level 6 and above was:	✓		
Proportion (%) of girls achieving level 6 and above was:	✓		

PANDA grade for last year's KS3 tests in the subject in comparison with all schools:	A
PANDA grade for last year's KS3 tests in the subject in comparison with similar schools:	A

Non-core subjects only

Percentage of all pupils attaining level 5 and above

Attainment in KS3 tests:	National averages		
	above	in line	below
Proportion (%) of all pupils achieving level 5 and above was:	84%		
Proportion (%) of boys achieving level 5 and above was:		76%	
Proportion (%) of girls achieving level 5 and above was:	90%		

Attainment and progress in KS3 of different groups of pupils

Analysis of data	fully in place	partly in place	not in place
The department analyses its assessment, attendance and other performance information by year group, gender, ethnicity and background of pupils.			✓

Consider the following groups and any others particularly relevant to your own school or department. You should consider gender as a general issue within each of the groups.

*pupils in **different year groups***

*pupils from **different sets***

*pupils with **special educational needs***

*pupils who are **high attainers** in the subject*

*pupils learning **English as an additional language***

*pupils from **ethnic minority** communities*

*pupils from **travelling** communities*

How does the attainment and progress of different groups of pupils compare with the general national and LEA profile? You could use the value added and benchmark information in the DfES's Autumn Package.

Comments on noticeable differences in the attainment and progress of particular groups:

- At Key Stage 3 girls usually progress at a greater rate than boys with an obvious difference in 'quality' and presentation of work.
- More girls achieving at level 6 than boys.
- More boys achieving at level 4 than girls.
- Year 7 groups are more enthusiastic and diligent than others.
- Pupils appear to lose momentum at the start of Year 9 and then towards the end give up if not opting for the subject.
- The uptake at Key Stage 4 is notably gender specific in certain subjects, i.e. Textiles and Resistant Materials.

What could be done?

Where relevant, list up to two action points directed at addressing differences in progress or attainment of:

Different year groups, sets or classes, including differences between boys and girls

- Develop schemes of work to include vigour, variety and pace by using a range of teaching and learning strategies, in order to improve motivation.
- Increase awareness of attainment targets through the use of exemplar materials, self-evaluation and feedback, in order to encourage development through positive action.
- Make sure projects within D&T appeal to both boys and girls.

Pupils learning English as an additional language

- To be integrated into mainstream.
- To modify individual timetables, prioritising needs, e.g. extra English instead of learning French.

Pupils with SEN, or gifted and talented pupils

- Differentiated schemes of work need to be further developed, meeting the needs of both ends of the spectrum.
- Provide extension work for the gifted and talented and students in Year 9 who are opting for a technology subject.
- More classroom support needed for particular individuals.

Pupils from particular communities

- Integrate through teaching.
- Increase awareness of various cultures between groups.

Attainment in different aspects of the subject

Based on the department's records of pupils' progress and pupils' self-assessments, are there any aspects of the subject where pupils show particular strengths or weaknesses? If so, record them here. You may want to use for comparison purposes those documents that are relevant to the subject, eg. National Curriculum level descriptions; key objectives for Years 7, 8 and 9 where available; the expectations set out in the Framework for teaching English: Years 7, 8 and 9 and the Framework for teaching mathematics: Years 7, 8 and 9.

Year 7, high attainers	Year 7, middle attainers	Year 7, lower attainers
Good, clear recording and analysis of work. Take pride in their work. Very organised. Keen to develop new skills.	Limited analysis, often only the bare essentials. Organisation good but consistency of quality of design work weak.	Literacy difficulties, resulting in poor recording and organisation. Self-esteem poor. Find independent study hard.
Year 8, high attainers	Year 8, middle attainers	Year 8, lower attainers
Insufficient extension or discussion of task. Begin to work independently in a practical situation. Follow instructions competently and evaluate with confidence.	Insecure at times, reluctant to broaden skills and develop ideas – almost scared of going wrong. Find individual planning hard.	Reluctant to take responsibility for own actions. Find planning difficult. Enjoy structured practical lessons with lots of teacher interaction.
Year 9, high attainers	Year 9, middle attainers	Year 9, lower attainers
Contrast between a complacent attitude, lazy approach and excelling, producing work reflecting thought about whole process, showing attention to detail and quality finish.	Fail to see opportunities for individual development (when free-choice practicals offered). Will opt for the safe option and do what teacher suggests. Technology is thought of as the easy option.	Can create poor relations in the group. Homework is seen as of no real importance. Enjoy practical work.

What could be done?

List up to two action points to improve pupils' attainment in each group.

Year 7

- Provide more SEN support for the lower attainers.
- Produce differentiated worksheets.

Year 8

- Develop more practical focused tasks to cut down on paperwork.
- Possibly assess ability and set groups.

Year 9

- Develop a more exciting curriculum to stimulate students who are not continuing in technology at Key Stage 4.
- Incorporate more theory, relate to the workplace and increase pace. Needs to be less repetition.

Pupils' attitudes and behaviour

Base judgements on staff discussions, lesson observations and, where possible, talking to pupils about their work.

Tick the most appropriate boxes.

In general:	Virtually all pupils	Most pupils	Some pupils	Relatively few pupils	Insufficient evidence
Pupils show an interest in learning the subject and have positive attitudes towards it		✓			
They listen attentively to their teachers and to each other		✓			
They answer questions willingly, explaining and demonstrating their ideas clearly using subject-specific vocabulary			✓		
They present written and graphical work carefully		✓			
They concentrate and try hard, even when the work is demanding			✓		
They show some initiative and can plan and organise their work without direct supervision; for some of the time they work independently			✓		
They respond positively to suggestions for improving their work			✓		
They complete homework tasks conscientiously			✓		

Are there any noticeable differences in pupils' attitudes or behaviour between different year groups, classes or different groups of pupils? If so, note them here.

Year 7 students appear more enthusiastic, do group work well and respond well to problem-solving activity. They take a lot of pride in their work and homework is done conscientiously.

Year 8 students usually continue to be organised, enthusiastic and want to do well but differences in attitude/maturity between boys and girls is very apparent.

Year 9 students can be less cooperative, de-motivated and reluctant to do written tasks yet enjoy the practical work. Often students who have not opted for a technology subject at GCSE 'switch off' early and can become problematic.

What could be done?

List up to three action points to improve pupils' attitudes and behaviour.

- Raise expectations and be consistent across the department – we must not accept poor work from students. Exemplar work to be used and displayed by staff to emphasise 'quality work'.
- Provide schemes of work with more pace and structure in order to maintain interest and present a challenge to gifted and talented students and provide access for the less able. This could be done by:
 - including more focused practical tasks;
 - improving the academic status of the subject;
 - relating to industrial practice.
- Increase awareness of achievement/progress through the introduction of self-assessment and target setting. To be used in an encouraging manner to help students feel positive and confident when doing the subject.

Planning

Schemes of work and medium-term planning

How effective is your planning in Key Stage 3 overall? Check your practice against the following questions and tick the appropriate boxes.

Does your medium-term plan/scheme of work:	usually	sometimes but not always	rarely
outline the work pupils will be taught over the year and each term, with the time or number of lessons to be allocated to each topic?	✓		
specify learning objectives in line with expectations in the English or mathematics Frameworks, the NC programmes of study/QCA schemes of work, or agreed syllabus?	✓ We are in the process of updating our SoW. We currently relate objectives to NC Programmes of Study.		
provide breadth and balance across all aspects/attainment targets of the subject?	✓		
identify when and how to develop cross-curricular skills, such as:	literacy;	✓	
	numeracy;	✓	
	ICT;	✓	
	thinking skills and problem solving?	✓	
consciously build on work done in the subject at Key Stage 2?			✓
specify special provision for pupils who need it, eg.	‘catch-up’ for Year 7 pupils who transfer at level 3;		✓
	support for pupils with SEN;	✓	
	support for pupils with EAL?		
provide regular opportunities to make connections between different aspects of the subject and to revisit aspects/topics?	✓ We have made sure we do this in the revised Food Technology SoW.		
build in time for regular review and self-assessment of pupils’ knowledge, skills and understanding?		✓	

<p>What could be done? List up to two action points to improve medium-term planning.</p> <ul style="list-style-type: none"> ■ Liaise with primary schools, increasing our awareness of Key Stage 2 learning, and use prior achievement data. ■ Identify possibilities for cross-curricular skills. Develop into practice and document within SoW.
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Short-term planning

Effective short-term or day-to-day planning is a key element of the Key Stage 3 Strategy. The main task of short-term planning is to explain what, how and when pupils are to be taught and to identify the activities to promote, extend and consolidate their learning.

Do your short-term (day-to-day) plans for a unit of work:	usually	sometimes but not always	rarely
identify clear objectives for what pupils are to achieve in a lesson, based on the medium-term plan?	✓		
indicate the key subject vocabulary to be emphasised?	✓		
outline the main teaching inputs, and key points for teacher exposition, modelling and questioning?		✓	
outline the focus for development of the lesson, including the main tasks and activities for pupils, and the time these are to take?	✓		
outline expectations for higher attaining pupils, and any extended tasks for them?		✓ We do outline expectations but do not do many extended tasks specifically.	
indicate which pupils will receive extra support during lessons, and any modifications or simplifications of tasks and activities for them?		✓	
indicate the essential resources needed, including relevant sections of published materials, practical equipment, and the use of ICT?	✓		
outline key points to be summarised or addressed at the end of the lesson?	✓		
indicate, as relevant, homework assignments?	✓		

What could be done?

List up to two action points to improve short-term planning.

- Identify higher attaining pupils through assessment and extend their learning capabilities.
- Develop differentiated materials and ensure tasks are modified or simplified to suit pupils' individual level of understanding.

Teaching

Initial impressions, based on departmental discussions, can be recorded first. The head of department and a senior manager will also need to use information from lessons in the subject that have already been observed as part of the school's normal routines, and/or specifically observe over a period of time a sample of lessons across Key Stage 3. Record here whether lessons have the key features listed below.

Key: 1. the feature is well established 2. the feature is evident in some lessons but not all 3. the feature is not yet part of practice	Initial impression 1/2/3	Observed evidence 1/2/3	Comments/action
Expectations of the level of work and pupils' behaviour are high; there is a productive working atmosphere.	2	2	All staff have high expectations of behaviour but expectations regarding quality of work is sometimes inconsistent. Regular monitoring/discussion needed.
Teachers have a good knowledge of the subject. They and their pupils use subject-specific vocabulary correctly.	1	1	A real strength of the department.
Teachers tell pupils what they are expected to learn in a lesson, and pupils understand which objectives/targets are being addressed.	2	3	Expectations for lessons are always stated clearly but students cannot relate objectives/targets in relation to what level they may be achieving.
Lessons are well structured; a variety of activities is used so that pace and momentum are maintained.	1	1	Short-term planning is done very effectively. Planning and sharing of ideas is often done as a team and this has proved to be successful.
Teachers actively teach the whole class or groups throughout lessons, they communicate an interest in and enthusiasm for the subject to pupils.	1	1	Again, a major strength in the department.
Group work is purposeful, focused and well-paced. Routines are established which support independent learning.	1	2	Group work is usually well paced – works better in Years 7 and 8 than Year 9. Routines are not always established or enforced, particularly in Year 9.
All pupils are expected to be engaged and to contribute through a range of opportunities for participation.	1	1	
Pupils receive oral and written feedback targeted at improving their work.	1	1	Encouragement and praise is very evident and constructive feedback is provided on a frequent basis.
There are sufficient opportunities in some lessons for all pupils to think analytically or creatively, or to reason.	1	1	Thinking skills strategies are being developed.

[continued opposite]

Key: 1. the feature is well established 2. the feature is evident in some lessons but not all 3. the feature is not yet part of practice	Initial impression 1/2/3	Observed evidence 1/2/3	Comments/action
Teaching is inclusive, ensuring that all pupils are challenged and supported effectively and are fully involved in the lesson; including; high-attaining pupils; those with SEN; those with EAL.	2 2	2 2	All students on task and focused when doing practical work, but theory and the design element does need to be differentiated. More support staff are needed for the SEN students.
A purposeful plenary, normally at the end of a lesson, helps pupils to consolidate key aspects of the lesson and deepen their knowledge and understanding.	2	2	This is usually done but due to the unpredictability of the subject, it can be missed. It is important that it takes place due to the fact that activities run over a course of several weeks.
If available, support staff are deployed effectively during whole-class and group time.	1	1	Support staff are used effectively to help the less able.

Are there any noticeable differences between the teaching of different year groups or different groups of pupils? If so, note them here.

- Key Stage 3 Textile Technology projects focus on the making of one project over a long period of time – students can lose interest, particularly in Year 9. This happens in Resistant Materials too.
- Year 7 have three single periods per week, whereas Years 8 and 9 have one single and one double per week (work on a two week timetable).
- Too much repetition in the Year 9 Food Technology scheme.
- More theory taught to groups in Years 7 and 8 than Year 9.

Where observed evidence indicates that an aspect of teaching is less effective than initial impressions had suggested, it will be important to decide how best to work with staff to introduce or strengthen those features.

What could be done?

List up to three action points to strengthen teaching.

- Carry out peer or teacher observation of lessons, in order to share good practice. Discuss progress of individuals and use as a support/coaching mechanism.
- Use level descriptions to help set targets.
- Differentiate elements of the course.

Assessment

Tick the relevant boxes.

Do your assessments match these criteria?	fully in place	partly in place	not in place
Assessment is for learning, not just of learning. It is based on objectives from the subject's scheme of work or key objectives in the English and mathematics Frameworks. It is used to guide lesson planning and identify the particular help that individuals and groups of pupils need.			✓
Whole classes or groups of pupils have curricular targets for improvement, drawn from objectives from the scheme of work or key objectives in the Frameworks. Individual targets for pupils with SEN are incorporated in IEPs.		✓	
There is a system for tracking pupils' progress against their targets and for responding to pupils who fall behind.		✓	
Marking includes teachers' comments which show clearly what a pupil needs to do to improve. A response from pupils is expected.	✓		
Test papers/assessment assignments are analysed to identify pupils' errors or misconceptions, and pupils are made aware of these. Particular attention is paid to the quality of pupils' reading and writing under test conditions.		✓	
Records are manageable and useful for teachers. Individual records, incorporating pupil targets, are kept for pupils whose progress is markedly different from the norm.		✓	
Pupil self-assessment is expected and respected and used as part of the assessment record.		✓	

What could be done?

List up to three action points to improve assessment.

- Review and modify marking policy, assessment and recording system. Have exemplar work available to standardise marking across the department.
- Develop assessment proforma, including target setting. Must be user friendly and ideally incorporate self-assessment and teacher-led targets for improvement relating directly to NC document.
- Have pupil marks/achievements accessible for members of the department to access, therefore monitoring progress through Key Stage 3.

Management of the subject and general issues

This section is not designed to give comprehensive coverage of management issues but focuses on those aspects that are particularly relevant to raising achievement.

Action planning	fully in place	partly in place	not in place
Are targets set for the proportions of pupils achieving particular levels in the subject?			✓
Is there a departmental action plan to meet the targets?		✓	
Is the plan monitored regularly by the HOD and SMT?		✓	
When senior managers monitor developments in the subject, do teachers receive feedback?	✓		
Are the findings from monitoring linked to a programme of professional development for staff?		✓	

What systems help to strengthen the quality of teaching in the subject:	fully in place	partly in place	not in place
a cycle of lesson observations with feedback?		✓ On an informal basis only.	
regular support with planning?	✓		
regular moderation of pupils' work?		✓	
regular sampling of marking and pupils' responses?		✓ Again, done on an informal basis.	
regular departmental discussions about the quality of teaching and learning?		✓	
a planned professional development programme for staff?		✓	

What could be done?

List up to three action points to improve the management of the subject.

- Highlight good practice and share thoughts on the delivery of certain aspects of the course. Discuss quality of teaching and learning – time will have to be created to do this.
- Regularly review and modify schemes of work where appropriate.
- Set targets for percentage of pupils achieving certain levels. Record pupil progress.

Action Plan

Review the possible action points identified earlier and decide on up to six key priorities to improve standards in the subject. Use the table below, or a similar one, to record your priorities, photocopying extra sheets as needed.

Priority	<p>One Year 9 unit will be selected in order to provide focus for priorities below.</p> <ul style="list-style-type: none"> ▪ Consider medium and short-term planning, with a focus on structure, pace and vigour, in order to improve student motivation (to include a consistent approach to lesson planning across the department). ▪ Develop a range of thinking-skill activities in order to build student independence in the types of thinking necessary in D&T (the capacity to differentiate using these strategies should be considered). ▪ Develop an Assessment for Learning focus. ▪ Agree a departmental approach to the formative use of summative assessment. ▪ Develop exemplar student assessment sheets across all areas of D&T. ▪ Agree processes which will encourage student self-assessment and peer-assessment. Build these into short-term planning. Evaluate the process. 								
Success criteria and/or target(s)	<ul style="list-style-type: none"> ▪ Staff will have developed a unit of work which is structured and reflects pace and vigour in order to improve student motivation. This could then be used as a model for other units of work. A possible SMART target, which could be developed here, is to use a starter activity in 80% of all Year 9 lessons. ▪ Thinking-skill activities incorporated within SoW. ▪ An assessment system which creates student awareness and encourages progression. 								
Action(s)	<ul style="list-style-type: none"> ▪ Coaching and capacity building course – professional development centre. ▪ Knowing and learning course – professional development centre. ▪ Planning and assessment course – professional development centre. ▪ School-based collaborative planning for learning (see priority 3 above) – half-day session. 	Person responsible	Timing or deadline						
Resources	<p>Designated CPD funding:</p> <table border="0" style="width: 100%;"> <tr> <td style="padding-right: 20px;">Core funding</td> <td>£145</td> </tr> <tr> <td>Additional support</td> <td>£1160</td> </tr> <tr> <td>Additional grant</td> <td>£450</td> </tr> </table>			Core funding	£145	Additional support	£1160	Additional grant	£450
Core funding	£145								
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Consultant support	<ul style="list-style-type: none"> • Consultant to support the dissemination of the module training across the department and across the school as part of a whole-school training day. • Consultant will provide some focused lesson observations when appropriate and by agreement with the department. 								
Monitoring	<ul style="list-style-type: none"> • KS3 Strategy manager will have regular update meetings to discuss progress of action plan and will participate in lesson observations with the consultant. • Manager has attended some LEA optional training and will monitor impact across the department. • School's teaching and learning development group is being updated regularly on developments as part of the monitoring of the programme and planning for the dissemination across the whole school. 								

Notes

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