

Generic grade descriptors and draft supplementary subject specific guidance for inspectors for Design and Technology

Achievement in D&T

	Generic	Supplementary subject-specific
1	Outstanding Achievement is likely to be outstanding when: <ul style="list-style-type: none"> ■ attainment is above average or high and learning and progress are outstanding or <ul style="list-style-type: none"> ■ attainment is high and learning and progress are good 	<p>Pupils demonstrate excellent attitudes to learning and working independently. They carry out their own research and investigations and are able to think for themselves. They take the initiative in, for example, asking questions and developing an exceptionally detailed knowledge of users' needs and the context for their work. They use time efficiently, making good use of ICT. They manage risks exceptionally well to safely manufacture products and consider suitability for users. They work constructively with others. Pupils have an excellent knowledge of modern material use and keep pace with technological advances. They apply scientific, mathematical and engineering knowledge to create products which are functional. They exploit this well when making choices and taking decisions about all aspects of their work. Pupils show significant levels of originality, imagination or creativity in their understanding and skills. They respond (well) to ambitious challenges, and produce ideas and manufacture prototypes that are varied and innovative. They develop a sense of passion (enthusiasm) and commitment to the subject.</p>
2	Good Achievement is likely to be good when: <ul style="list-style-type: none"> ■ attainment is average or above average and learning and progress are good or <ul style="list-style-type: none"> ■ attainment is average and learning and progress are outstanding. In the most exceptional circumstances, attainment may be low. 	<p>Pupils are able to work independently and take the initiative in their work with others. Thoughts and ideas are well demonstrated: for example, pupils' analysis of research is highly pertinent and is used efficiently to test the effectiveness of their product. The suitability for users is embedded in all aspects of their designing and making. They demonstrate (some) originality, imagination or creativity in their D&T work and realise their ideas and plans accurately and safely. Pupils have a good knowledge of modern material use and they use ICT effectively. Pupils draw upon their knowledge of scientific and mathematical knowledge to inform their designing and making. They enjoy D&T and can explain its value.</p>
3	Satisfactory Achievement is likely to be satisfactory when: <ul style="list-style-type: none"> ■ attainment is average, above average or high and learning and progress are satisfactory or <ul style="list-style-type: none"> ■ attainment is low but improving strongly and learning and progress are good. In exceptional cases, learning and progress may be satisfactory but improving securely and quickly. 	<p>Pupils are generally dependent on their teachers but can occasionally work independently and take the initiative in developing their work. Occasionally pupils show creative or original responses in their D&T work. Some consideration is given to user needs, but technological understanding and testing are rudimentary. Pupils are generally motivated well, are proud of the things they make, follow instructions and act safely. Pupils have an awareness of modern material use and use ICT successfully.</p>

4	<h2>Inadequate</h2> <p>Achievement is likely to be inadequate if either:</p> <ul style="list-style-type: none"> ■ learning and progress are inadequate <p>or</p> <ul style="list-style-type: none"> ■ attainment is low and shows little sign of improvement, and learning and progress are no better than satisfactory with little evidence of improvement. 	<p>Pupils infrequently show the ability to work independently, make choices, take design decisions or plan their work. They may lack interest or enthusiasm and see little relevance in completing their work. Pupils rarely demonstrate creativity or originality when designing and making. The needs of users and technological understanding are seldom considered. Consequently designing may be formulaic(and predictable) and products made with crude technical skills.</p>
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Achievement in D&T - NAAIDT Comments

Achievement in higher levels could emphasise the importance of precision, accuracy, attention to detail as it relates to making activities;

Some CDP/calibration exercises/ moderation examples will be useful to develop consistent interpretations of semantic differences of descriptors in different grade areas

Typographical comments:

Use of bullet points would help to differentiate and to apply standards;

Design and Technology Association comments:

- The emphasis on STEM is welcome
- There could be recognition that the design ideas of creative pupils sometimes fail

Quality of teaching in D&T

1	<p>Teaching in the subject is at least good and much is outstanding, with the result that the pupils are making exceptional progress. It is highly effective in inspiring pupils and ensuring that they learn extremely well. Excellent subject knowledge is applied consistently to challenge and inspire pupils. Resources, including new technology, make a marked contribution to the quality of learning, as does the precisely targeted support provided by other adults. Teachers and other adults are acutely aware of their pupils' capabilities and of their prior learning and understanding, and plan very effectively to build on these. Marking and dialogue between teachers, other adults and pupils are consistently of a very high quality. Pupils understand in detail how to improve their work and are consistently supported in doing so. Teachers systematically and effectively check pupils' understanding throughout lessons, anticipating where they may need to intervene and doing so with striking impact on the quality of learning.</p>	<p>Teachers communicate high expectations, enthusiasm and passion about D&T to pupils and challenge their thinking. They have a high level of confidence and expertise both in terms of their up-to-date specialist knowledge and their understanding of effective learning in D&T. As a result, they employ a very wide range of innovative and imaginative resources and teaching strategies to stimulate pupils' active participation in their learning. This enables pupils to explain their ideas and concepts clearly and apply them with confidence. Opportunities for pupils to develop and demonstrate their initiative and independence and take responsibility for their learning are thoughtfully planned and secure outstanding progress across all aspects of D&T.</p>
2	<p>Teaching in the subject is consistently effective in ensuring that pupils are motivated and engaged. The great majority of teaching is securing good progress and learning. Teachers generally have strong subject knowledge which enthuses and challenges most pupils and contributes to their good progress. Good and imaginative use is made of resources, including new technology to enhance learning. Other adults' support is well focused and makes a significant contribution to the quality of learning. As a result of good assessment procedures, teachers and other adults plan well to meet the needs of all pupils. Pupils are provided with detailed feedback, both orally and through marking. They know how well they have done and can discuss what they need to do to sustain good progress. Teachers listen to, observe and question (groups of) pupils during lessons in order to reshape tasks and explanations to improve learning.</p>	<p>Teachers have a clear understanding of the value of D&T and awareness of technological developments which they communicate effectively to pupils. They have a confident level of specialist expertise which they use well in planning and teaching D&T in a well-organised environment. They make good use of a range of teaching strategies and they plan and manage time and resources, such as tools and CAD/CAM equipment, efficiently to promote good learning across all aspects of D&T.</p>
3	<p>Teaching in the subject may be good in some respects and there are no endemic inadequacies. Pupils show interest in their work and are making progress that is broadly in line with their capabilities. Teachers' subject knowledge is secure. Adequate use is made of a range of resources, including new technology, to support learning. Support provided by other adults is effectively deployed. Teaching ensures that pupils are generally engaged by their work and little time is wasted. Regular and accurate assessment informs planning, which generally meets the needs of all groups of pupils. Pupils are informed about their progress and how to improve through marking and dialogue with adults. Teachers monitor pupils' work during lessons, pick up general misconceptions and adjust their plans accordingly to support learning.</p>	<p>Teachers understand how to maintain pupils' interest in D&T. They have a sound level of subject expertise which they use in their planning and teaching. As a result, they use a range of resources and teaching strategies to promote a satisfactory level of learning across most aspects of the subject. Teachers manage lessons and complex tools and equipment, including ICT and CAD/CAM, accurately and safely.</p>
4	<p>■ Expectations in the subject are inappropriate. Too many lessons are barely satisfactory or are inadequate and teaching fails to promote the pupils' learning, progress or enjoyment.</p> <p>or</p> <p>■ Assessment in the subject takes too little account of the pupils' prior learning or their understanding of tasks and is not used effectively to help them improve.</p>	<p>Teachers are not able to engage or sustain pupils' interest in D&T. Their subject expertise is limited or outdated and, as a result, they do not provide the resources or teaching strategies to promote effective learning in D&T. Activities occupy pupils and whilst there may be a general business (superficial activity) within lessons, planning fails to promote their learning or ensure that safe working practices are applied. Opportunities for pupils to work independently are rare and lessons are over-dominated by teacher demonstration or talk.</p>

Quality of teaching in D&T – NAAIDT Comments

In each grade area, 'teacher expectations' should include extent to which modelling and exemplifying standards to learners is a feature of teaching: e.g. exemplary; clear; some; none.

Design and Technology Association comments:

- Teachers should be able to communicate the value of the subject to all pupils and particularly to those who may consider careers in either the STEM or creative industries

The curriculum in D&T

1	The curriculum in the subject provides memorable experiences and rich opportunities for high-quality learning and wider personal development. The subject curriculum may be at the forefront of successful, innovative design. A curriculum with overall breadth and balance provides pupils with their full entitlement and is customised to meet the changing needs of individuals and groups. The subject's contribution to relevant cross-curricular themes including, as appropriate, literacy, numeracy and ICT, is mainly outstanding. As a result, all groups of pupils benefit from a highly coherent and relevant curriculum which promotes outstanding outcomes.	The imaginative and stimulating D&T curriculum is skilfully designed to match to the full range of pupils' needs and to ensure highly effective continuity and progression in their learning. Pupils' learning and engagement in D&T are enriched and enhanced in meaningful ways through excellent links forged with other agencies, industry, the wider community, and other subjects, particularly the STEM subjects. Pupils are extremely well-informed about their current work and future projects, courses and careers (in secondary schools). Where appropriate, curriculum plans promote pupils' knowledge of current and new technologies and speculate about the issues and moral aspects that need to be considered when designing and making. Access to, and the use of resources, is exceptionally well planned and enables pupils to create innovative, functional solutions to problems.
2	The curriculum in the subject provides well-organised, imaginative and effective opportunities for learning and a broad range of experiences which contribute well to the pupils' development. The curriculum is adjusted effectively to meet the needs of most groups and a range of pupils with highly specific needs. The subject makes a good contribution to relevant cross-curricular themes including, as appropriate, literacy, numeracy and ICT. Enrichment opportunities in the subject are varied, have a high take-up and are much enjoyed.	The curriculum is broad, balanced and exciting. It is well informed by current initiatives in D&T. It is designed to match to a range of pupils' needs and ensure effective continuity and progression in their learning in D&T. Good links are forged with other agencies and the wider community to provide a range of enrichment activities to promote pupils' learning and their engagement with D&T. Effective links to other subjects, particularly STEM subjects, drive improvement in pupils' learning and their application of designing and making skills. Curriculum plans promote pupils' awareness of technological developments and issues and provide structured opportunities for pupils to apply their knowledge of manufacturing techniques to develop creative and innovative solutions to real problems.
3	The curriculum in the subject is adequately matched to pupils' needs, interests and aspirations and provides adequate preparation for the next stage of their lives, whatever their starting points. Provision for potentially vulnerable pupils is satisfactory. The subject's contribution to cross-curricular themes including, as appropriate, literacy, numeracy and ICT, is at least satisfactory.	The curriculum secures the pupils' broad and balanced entitlement in D&T and meets any statutory requirements that apply, for example to be able to learn about systems and control and to cook. It provides for a range of pupils' needs and ensures they make satisfactory progress to acquire capability in designing and making and to move forward securely to the next stage of learning. Pupils are aware of some inventions and products that they see in the world around them and draw upon them occasionally to develop their designing and making. Some links are forged with other agencies, the wider community, and other subjects, particularly STEM subjects, although the range of activity provided to enrich pupils' interest and learning may be quite limited.
4	The curriculum has significant shortcomings in meeting the needs of pupils, or particular groups of pupils, and makes insufficient contribution to their learning, enjoyment or development.	The curriculum does not ensure pupils' entitlement to D&T and does not secure continuity in their learning. Pupils' learning, enjoyment or development as designers, makers or informed consumers is constrained by schemes of work which are too narrow or shallow. There is little by way of enrichment activity in the subject.

The Curriculum in D&T – NAAIDT comments

Emphasis on STEM could be extended to functional skills

Descriptors would benefit from more specific mention of Vocational courses, especially as schools will use these descriptors to inform their self review processes;

Higher grades should include reference to personalised programmes for learners.

Increasingly, better curriculum provision should include learner access to expertise and provision which lies beyond their immediate institution e.g local partnerships

Design and Technology Association comments:

- An opportunity to refer to the benefits of a mix of activities, particularly at KS3 (ie activities where pupils design but do not make, make but do not design, design and make, analyse products, learn about technology in society)
- Positive mention of links to STEM

Effectiveness of leadership and management in D&T

1	<p>Subject and senior leaders and managers are conspicuously successful in establishing a strong sense of purpose which involves work towards meeting or sustaining ambitious targets in the subject for all pupils. Morale is very high and belief in success runs through all staff involved with the subject. Rigorous and extensive monitoring, searching analysis and self-challenge lead to exceptionally well-focused plans for the subject. Actions taken are implemented with precision and managed thoroughly. As a result, the quality of teaching in the subject is at least good and leaders and managers at all levels are taking highly effective steps to drive up the quality of teaching still further. Consequently, achievement in the subject for all pupils is at least good.</p>	<p>Leadership is informed by a high level of subject expertise and vision. There is a strong track record of innovation. Subject reviews, self-evaluation and improvement planning are well-informed by current best practice in D&T and in education generally. D&T leaders, and a widely shared subject vision, inspire confidence and whole-hearted commitment from pupils, parents and colleagues. There are effective strategies to delegate subject responsibilities where appropriate and to share good practice. High quality professional development in D&T is secured and its effectiveness is clearly demonstrated. D&T has a very high profile and is at the cutting edge of initiatives within the school. Accommodation, resources and working practices are well planned, safe and significantly support learning. Partnership with the wider community and communication with parents about how they can support their children's learning in D&T are excellent.</p>
2	<p>Subject and senior leaders and managers consistently communicate high expectations to staff about securing improvement in the subject. They galvanise the enthusiasm of staff and channel their efforts to good effect. Leaders and managers routinely make good use of a range of rigorous monitoring activities relating to teaching, other provision and outcomes. They have an accurate picture and understanding of strengths and weaknesses in the subject. Planning is founded on robust evidence and good-quality data. It is tackling key areas of weakness, including those in teaching, systematically and building on areas of strength. As a result, teaching is at least satisfactory and improving. Target-setting is realistic and challenging. Consequently, achievement in the subject is generally good, or there is substantial evidence that it is improving strongly.</p>	<p>Leadership is well-informed by current developments in D&T. Subject reviews, self-evaluation and improvement planning are clearly focused on raising attainment and improving the provision for D&T. Pupils' and parents' feedback is regularly used to improve and develop D&T to keep it relevant and accessible to all. There is a shared common purpose amongst those involved in teaching D&T with good opportunities to share practice and access subject training. D&T reflects wider whole school priorities and has a prominent profile in the school. Good planning ensures accommodation, resources and safe working practices support learning effectively.</p>
3	<p>Subject and senior leaders and managers are motivated to seek further improvement and are effective in focusing efforts on priorities in the subject. They monitor accurately the progress of all pupils and the quality of teaching and learning. Self evaluation is broadly accurate. Target-setting in the subject is based on accurate assessment information but is only adequately challenging. Suitable plans are in place aimed at improving areas of weakness in the subject and effective steps are being taken to secure high-quality teaching. Expectations are sufficiently high to bring about outcomes which are broadly satisfactory and improving or, if lower, there is substantial evidence that they are improving strongly.</p>	<p>Leadership is aware of current developments in D&T and incorporates these within its practice. Provision for D&T is monitored and reviewed regularly and there is a sound understanding of the strengths and priorities for improvement. There is some sharing of good practice, with modest access to subject-specific professional development. Accommodation, resources and working practices are fit for purpose.</p>
4	<p>or</p> <ul style="list-style-type: none"> ■ Subject and senior leaders and managers are not taking effective steps to embed their ambition for the subject. <p>or</p> <ul style="list-style-type: none"> ■ Target-setting in the subject is not used effectively to raise expectations and improve outcomes. <p>or</p> <ul style="list-style-type: none"> ■ Subject and senior leaders and managers do not drive and secure improvement. <p>or</p> <ul style="list-style-type: none"> ■ Subject and senior leaders and managers are not taking effective steps to secure satisfactory and better teaching. 	<p>Leadership is not well-informed about current initiatives in D&T. Key statutory requirements for D&T are not met. Self-evaluation is weak and not informed by good practice. Opportunities for professional development are limited and, as a result, some staff lack the confidence and expertise to deliver it effectively. D&T has a low profile in the life of the school. Leadership is not effective in securing sufficient resources to support pupils' learning or pupils' safety.</p>

Effectiveness of Leadership and Management in D&T – NAAIDT comments:

Extent of access to subject training may be an issue in some schools given current national shortage

.Otherwise good.

Design and Technology Association comments:

- Agree with comments above

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Overall effectiveness in D&T

Outstanding (1)	Overall effectiveness in the subject is likely to be outstanding when: Achievement in the subject is outstanding, or achievement is good and outstanding leadership and management underpin the capacity for sustained improvement in the subject. At least one, of teaching or the curriculum in the subject, is outstanding, and neither is less than good.
Good (2)	Overall effectiveness in the subject is likely to be good when: Achievement in the subject is good, and good leadership and management provide secure evidence of capacity for sustained improvement in the subject. In exceptional circumstances, leadership and management may be satisfactory. At least one, of teaching or the curriculum in the subject, is good, and neither (none) is less than satisfactory.
Satisfactory (3)	Overall effectiveness in the subject is likely to be satisfactory when: Achievement in the subject is at least satisfactory, and satisfactory leadership and management ensure adequate capacity for improvement in the subject. Teaching and the curriculum in the subject are at least satisfactory.
Inadequate (4)	Overall effectiveness in the subject is likely to be inadequate if any of the following are inadequate: <ul style="list-style-type: none"> ■ Achievement in the subject ■ Capacity for improvement, as evidenced by inadequate leadership and management of the subject ■ Teaching or the curriculum in the subject

Overall Effectiveness in D&T – NAAIDT Comments

Hopefully, achievement is related to pupils' capability and not solely against externally awarded qualifications benchmarked against all schools.

Learners with specific learning or behavioural disabilities should be able to have their achievement and / or overall effectiveness graded appropriately.