

Developing Mentoring Skills

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Background to the School and Context of Lesson

The Junior School is an urban school with children coming from mixed social backgrounds, but with a significant number of families who are disadvantaged. There are 417 pupils on roll aged from 7 to 11 years.

Over one third (36%) of all pupils have learning difficulties or statements of special educational need, which is significantly higher than average.

The school has designated special provision to support pupils with statements of special educational need. The majority of these children have severe learning difficulties, moderate learning difficulties or autism. Most enter during Year 3 and Year 4 from mainstream schools which are unable to meet the special needs of these children. The school also has facilities for hearing impaired children.

As an inclusive school, the ethos aims to fully integrate children with special educational needs. Due to the very wide range of abilities within each year group the children are set for Numeracy and Literacy but have all other lessons in their mainstream classes.

Stacey is a trainee on the Graduate Teacher Programme. The lesson on the DVD was recorded with the more able set of year 4 children. Although the children are set for Numeracy and Literacy, Stacey was very aware that there was a wide range of ability (levels 4c to 5b) within the set. One of the most able children in the set is a boy from Eastern Europe who joined at Year 3 with no English Language. Although very able at Maths, the children were found to be rushing their work and finding it difficult to explain their methods and reasoning. They also found it very difficult to work collaboratively. The lesson was planned to address these issues.

Standards to be Observed

Q10 Have a knowledge and understanding of a range of teaching, learning and behaviour management strategies and know how to use and adapt them, including how to personalise learning and provide opportunities for all learners to achieve their potential.

Q14 Have a secure knowledge and understanding of their subjects/curriculum areas and related pedagogy to enable them to teach effectively across the age and ability range for which they are trained.

Q25 Teach lessons and sequences of lessons across the age and ability range for which they are trained in which they:

a) use a range of teaching strategies and resources, including e-learning, taking practical account of diversity and promoting equality and inclusion.

b) build on prior knowledge, develop concepts and processes, enable learners to apply new knowledge, understanding and skills and meet learning objectives.

c) adapt their language to suit the learners they teach, introducing new ideas and concepts clearly, and using explanations, questions, discussions and plenaries effectively.

d) demonstrate the ability to manage the learning of individuals, groups and whole classes, modifying their teaching to suit the stage of the lesson.

Lesson Plan/Activity Template

Date: 30.04.07	Time: 9.20 – 10.20	Class: 8	Curriculum area: Mathematics Year 4 Set 1 27 children
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Learning objectives:

No more than 2 or 3 per lesson, inc. National Curriculum references

Ma2 4a/b/c. Ma3 4e.

To solve a measurement problem – step by step.

Find the area of a rectangle or compound shape.

Explain each step using mathematical vocabulary.

Description of Main Activity Focus:

Problem solving skills – solve a measure problem step by step.

Find the area of a rectangle or compound shape.

Problem solving activity – working out the best value flooring for a given room.

Extension activity:

G & T: to calculate 15% and 20% of the total cost.

M.A: more complex compound shape and larger numbers.

L.A: a simple compound shape with larger numbers.

Action points from previous lesson(s)

Note any management or teaching issues to which you referred in the previous lesson's evaluation. They may relate to a management/issue or learning of an individual or the whole class.

There is a tendency to rush through calculations without thinking about the methods used. The G&T group find it difficult to work together as a team to solve problems. I have planned a group activity which is differentiated to take account of levels within the set and which will require the children to work through the problem step by step.

Resources

Health & Safety issues.

Identify books/equipment/apparatus. Also show how any additional adults are to be deployed.

Whiteboards and pens, questions, sugar paper, A4 paper.

TA to carry out mini assessment of children's knowledge of area during OMS.

Main activity to focus on L.A/M.A groups and use key questions to assess.

Plenary to carry out a second mini assessment of the children's knowledge and understanding of area.

Differentiation

Indicate particular groupings/different tasks/outcomes.

G & T: compound shape (year 6). Convert measures to common unit of measure (measures given including decimal numbers). Year 6.

M.A: simple compound shape given. Year 5/6.

L.A: simple rectangle given. Year 4/5.

9.20	<p>OMS: Focus on area. Ask the children to use whiteboards to write everything they know about area – show me. What is area? What is it measured in? How do you work out the area of a rectangle? How do you work out the area of a triangle? How do you work out the area of a trapezium? VAK</p>	Assess. TA to have observation sheet to assess children.
9.30	<p>Look at the LO's and introduce main activity focus – problem solving. Introduce the problem: I need to buy flooring for my bedroom. I have ... to spend - what flooring will be the best value? Explain they will work in groups; each group will have a series of statements/questions. It is their job to sort through this and decide what information they need and what steps they need to carry out to solve the problem and in what order. Is all of the information relevant? Reinforce the importance of team work - they can each take on a part of the task but need to work together to decided on who will do what. VAK Explain the adults will be looking for their use of mathematical vocabulary and how they explain their steps.</p>	
9.35	<p>Check for understanding and tell them I will give them 15 minutes to make a start. I will focus on G & T group, once they have made a start, check on other groups –make sure they understand what they are doing – question them – what is your first step? Why have you chosen to begin with this? How did you work this out? (TA to focus on L.A/M.A groups using key questions).</p>	Questioning discussion.
9.50	<p>Stop the children and ask them to feed back what they have done so far – explaining their reasons. Clear up any misunderstandings.</p>	Questioning discussion, assess.
9.55	<p>Tell them they have 15 more minutes to complete the challenge before we come together to discuss what they have done.</p>	Continue with identified group.
10.10	<p>Plenary: Stop the children and remind the children of the LO's. Talk through the mathematical vocabulary sheet, explaining they need to focus on the vocabulary used – tick each time a word is used. Ask the groups to talk me through their steps. At each step ask the children to work out a similar problem on their whiteboards, for example: give the children an area to workout on their whiteboards. VAK</p>	Assess against LO's. TA to complete assessment sheet.
10.20	<p>Children to evaluate against the LO's using thumbs. Children to collect up whiteboards and pens.</p>	

Assessment opportunities

OMS – questioning and observation – use of whiteboards.

Main activity – questioning, observation and discussion.

Plenary – questioning and discussion – use of whiteboards.

Lesson evaluation

Consider the extent to which learning objectives were/were not met. Were there any planning/management errors, which impaired teaching/learning? Implications for future planning and teaching.

The learning objectives were partly met.

The OMS provided a good assessment opportunity as well as a recap of area. In retrospect I perhaps should have used this assessment to move the children for the group work.

The children settled down quickly to the main activity and from observation they are working more successfully in group activities. I ensured Andreas' group took on certain roles- as he does not cope well working in a group – this helped and he interacted with the other group members with more success.

On the whole the children struggled today to recall how to work out the area of rectangles and compound shapes – I stopped the children several times throughout the lesson to address this and work through some examples; however, they did not seem to retain the information. I will incorporate this into future starters to keep this fresh.

The overall pace of the lesson was slow today. I believe this was due to my focusing too much on the children feeding back and explaining their steps to the rest of the class - this took longer than expected. I need to increase the pace to keep the children motivated.

When I was demonstrating how to break down a compound shape to calculate area, on the board, I made a mistake with the length of the sides. In the future I need to be really careful about this. Perhaps I could have asked the children to check to make sure my measurements are correct.

Perhaps more assessment of the children calculating the area of different rectangles and compound shapes using the whiteboards would have made better use of the plenary.

LA

I have £285 to spend.

Do I have enough to buy carpet for my bedroom?

Would it be better value to use wood?

The wood costs £5.50 per m².

It costs £6 per m² for carpet.

The fitter charges £6.50 per hour.

It takes 2 hours to fit the carpet.

It takes 3 hours to fit the wood.

Find the difference between wood and carpet.

Which flooring is better value?

The wardrobe in the bedroom is 1.2 metres high.

The carpet is blue.

MA

I have £350 to spend.

Do I have enough to buy carpet for my bedroom?

Would it be better value to use wood?

The wood costs £6 per m².

It costs £5.50 per m² for carpet.

The fitter charges £6.50 per hour.

It takes 3 hours to fit the carpet.

It takes 4 hours to fit the wood.

Find the difference between wood and carpet.

Which flooring is better value?

The wardrobe in the bedroom is 1.2 metres high.

The carpet is blue.

G&T

I have £440 to spend.

Do I have enough to buy carpet for my bedroom?

Would it be better value to use wood?

The wood costs £7 per m².

It costs £6 per m^2 for carpet.

The fitter charges £7.50 per hour.

It takes 2 hours to fit the carpet.

It takes 3 hours to fit the wood.

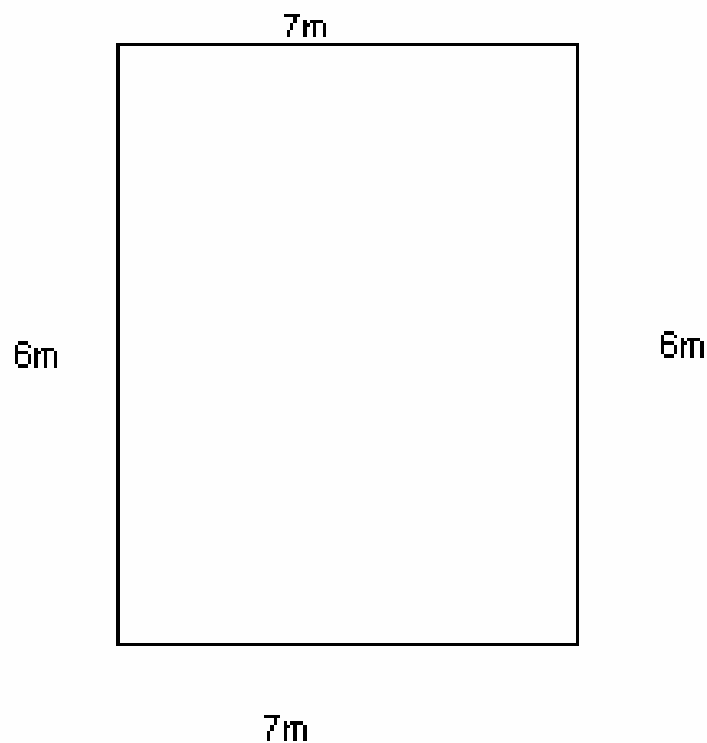
Find the difference between wood and carpet.

Which flooring is better value?

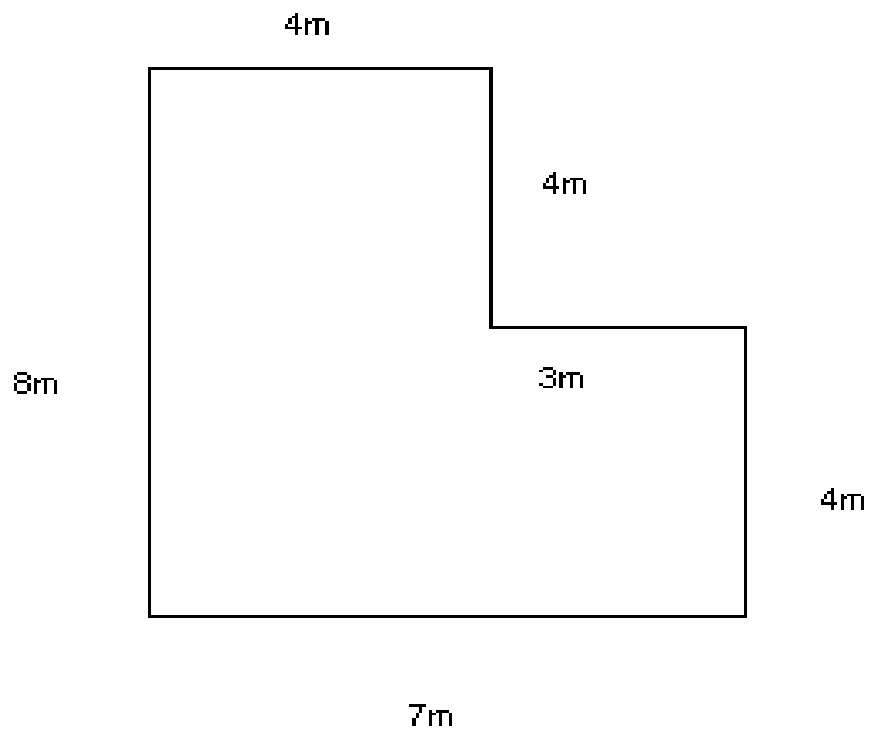
The wardrobe in the bedroom is 1.2 metres high.

The carpet is blue.

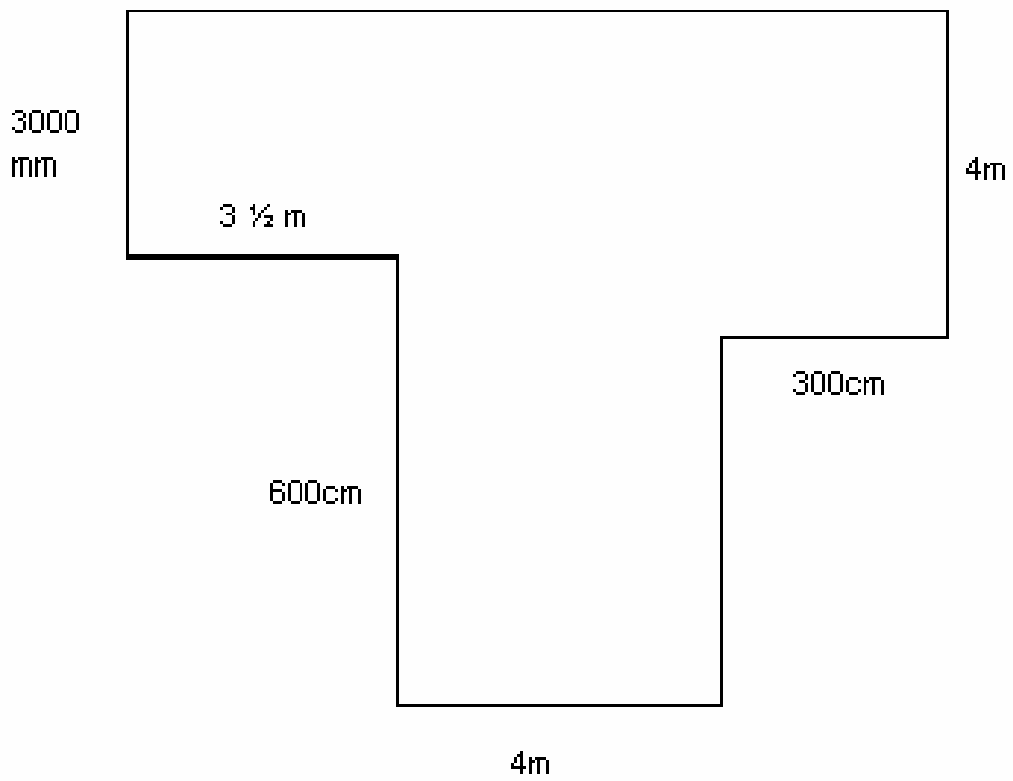
L.A Shape:



M.A shape:



G.T shape:



Lesson Observation

Standards Reference:	Trainee: Stacey Numeracy lesson. Year 4 set 1 27 children.		
Q12 Q33	<p>OMS Learning objectives and a bank of maths vocabulary are on the board ready for the lesson, and shared with the children for a prompt start. Resources are prepared and on the tables. A lovely start to the lesson. Well done. It's great to see the children using the whiteboards so you can quickly assess what they already know. The learning support assistant is clear about her role. Could you have used this as an opportunity to discuss children's ideas and develop their basic knowledge of area before the main part of the lesson? One of the children in the middle ability group showed a good understanding of the concept. Perhaps you could have used this assessment to move her to the G&T group for this activity. Children are enthusiastic and keen to share their understanding. As the OMS progressed the pace began to slow and you started to 'lose' a few children. Try to keep this part of the lesson quick and pacy.</p>		
Q25	<p>Main teaching & learning Your lesson plan is well detailed with clear leaning objectives. You have differentiated the activities appropriately for each group. The resources are well prepared and organised prior to the start of the lesson. Children's preferred learning styles have been considered and you have catered for visual, auditory and kinaesthetic learners. Appropriate mathematical vocabulary is used (including a bank of words on the board). A clear explanation of the task and expectations for working as a group. You have addressed the idea of personalised learning well. The G&T group are given specific roles to ensure they are focused on the task and work together, step by step. Well done. You demonstrate a good balance between the children working in their groups and bringing them back together to address any mathematical misconceptions. Your subject knowledge is secure as demonstrated in your planning and explanations. You know exactly where the children were and what the next steps should be. The independent work was well managed with you spending time with each group, showing good questioning skills to extend the more able and support any children that were struggling. Do be careful here. At times you weren't able to see the rest of the class. Remember to position yourself so you can scan the room and identify any problems. I was very impressed by the way the children worked together and were clearly totally focussed on their task.</p>		
Q10			
Q14			
Q10			
Q14 Q27 Q28	<p>Plenary I loved the 'vocabulary' sheet that the children used to identify maths words that were used during the plenary. What a lovely idea. Each group shares their methods and working out, which was one of your objectives. Questioning used well and the children are given the opportunity to reflect on what they have learned. However, because there were three groups the pace slowed and some children started to switch off. The most able group were very keen to share but the other groups might have benefited from some thinking time. Perhaps you could have paired the different ability groups together to share and explain what they had found out. Maybe it would have been better to have had more focussed questions for the plenary and let the children have more time to present their findings in another lesson. The children worked well on this task and clearly enjoyed helping you to calculate the best value for floor covering. It is clear you have developed a very good relationship with the children in this maths set.</p>		
Q31	This was a well planned and organised lesson. Thank you Stacey. Well done.		
STRENGTHS		Standards	TARGETS FOR FUTURE DEVELOPMENT
Class management		Q31	Standards
Differentiation & personalised learning		Q10	Use assessment to make adjustments to groupings if appropriate.
Maths subject knowledge		Q14	Q12
Building on what children already know to develop concepts through questioning and support.		Q25b	Consider ways to increase the pace of the lesson (particularly, the OMS) and keep all children engaged.
			Remember to monitor the whole class even when working with one group.
			Q25d

QTS Standards

1. Professional attributes

Relationships with children and young people

Q1 Have high expectations of children and young people including a commitment to ensuring that they can achieve their full educational potential and to establishing fair, respectful, trusting, supportive and constructive relationships with them.

Q2 Demonstrate the positive values, attitudes and behaviour they expect from children and young people.

Q3 (a) Be aware of the professional duties of teachers and the statutory framework within which they work.

(b) Be aware of the policies and practices of the workplace and share in collective responsibility for their implementation.

Communicating and working with others

Q4 Communicate effectively with children, young people, colleagues, parents and carers.

Q5 Recognise and respect the contribution that colleagues, parents and carers can make to the development and well-being of children and young people and to raising their levels of attainment.

Q6 Have a commitment to collaboration and co-operative working.

Personal professional development

Q7 (a) Reflect on and improve their practice, and take responsibility for identifying and meeting their developing professional needs

(b) Identify priorities for their early professional development in the context of induction.

Q8 Have a creative and constructively critical approach towards innovation, being prepared to adapt their practice where benefits and improvements are identified.

Q9 Act upon advice and feedback and be open to coaching and mentoring.

2 Professional knowledge and understanding

Teaching and learning

Q10 have a knowledge and understanding of a range of teaching, learning and behaviour strategies and know how to use and adapt them, including how to personalise learning and provide opportunities for all learners to achieve their potential.

Assessment and monitoring

Q11 Know the assessment requirements and arrangements for the subjects/curriculum areas they are trained to teach, including those relating to public examinations and qualifications.

Q12 Know a range of approaches to assessment, including the importance of formative assessment.

Q13 Know how to use local and national statistical information to evaluate the effectiveness of their teaching, monitor the progress of those they teach and to raise levels of attainment.

Subjects and Curriculum

Q14 Have a secure knowledge and understanding of their subjects/curriculum areas and related pedagogy to enable them to teach effectively across the age and ability range for which they are trained.

Q15 Know and understand the relevant statutory and non-statutory curricula and frameworks, including those provided through the National Strategies, for their subjects/curriculum areas, and other relevant initiatives applicable to the age and ability range for which they are trained.

Literacy, numeracy and ICT

Q16 Have passed the professional skills tests in numeracy, literacy and information and communications technology (ICT).

Q17 Know how to use skills in literacy, numeracy and ICT to support their teaching and wider professional activities.

Achievement and diversity

Q18 Understand how children and young people develop and that the progress and well-being of learners are affected by a range of developmental, social, religious, ethnic, cultural and linguistic influences.

Q19 Know how to make effective personalised provision for those they teach, including those for whom English is an additional language or who have special educational needs or disabilities, and how to take practical account of diversity and promote equality and inclusion in their teaching.

Q20 Know and understand the roles of colleagues with specific responsibilities, including those with responsibility for learners with special educational needs and disabilities and other individual learning needs.

Health and well-being

Q21 (a) Be aware of the current legal requirements, national policies and guidance on the safeguarding and promotion of the well-being of children and young people.

(b) Know how to identify and support children and young people whose progress, development or well-being is affected by changes or difficulties in their personal circumstances, and when to refer them to colleagues for specialist support.

3 Professional skills

Planning

Q22 Plan for progression across the age and ability range for which they are trained, designing effective learning sequences within lessons and across series of lessons and demonstrating secure subject/curriculum knowledge.

Q23 Design opportunities for learners to develop their literacy, numeracy and ICT skills.

Q24 Plan homework or other out-of-class work to sustain learners' progress and to extend and consolidate their learning.

Teaching

Q25 Teach lessons and sequences of lessons across the age and ability range for which they are trained in which they:

(a) use a range of teaching strategies and resources, including e-learning, taking practical account of diversity and promoting equality and inclusion.

(b) build on prior knowledge, develop concepts and processes, enable learners to apply new knowledge, understanding and skills and meet learning objectives.

(c) adapt their language to suit the learners they teach, introducing new ideas and concepts clearly, and using explanations, questions, discussions and plenaries effectively.

(d) demonstrate the ability to manage the learning of individuals, groups and whole classes, modifying their teaching to suit the stage of the lesson.

Assessing, monitoring and giving feedback

Q26 (a) Make effective use of a range of assessment, monitoring and recording strategies.

(b) Assess the learning needs of those they teach in order to set challenging learning objectives.

Q27 Provide timely, accurate and constructive feedback on learners' attainment, progress and areas for development.

Q28 Support and guide learners to reflect on their learning, identify the progress they have made and identify their emerging learning needs.

Reviewing teaching and learning

Q29 Evaluate the impact of their teaching on the progress of all learners, and modify their planning and classroom practice where necessary.

Learning environment

Q30 Establish a purposeful and safe learning environment conducive to learning and identify opportunities for learners to learn in out-of-school contexts.

Q31 Establish a clear framework for classroom discipline to manage learners' behaviour constructively and promote their self-control and independence.

Team Working and Collaboration

Q32 Work as a team member and identify opportunities for working with colleagues, sharing the development of effective practice with them.

Q33 Ensure that colleagues working with them are appropriately involved in supporting learning and understand the roles they are expected to fulfil.

Observing Mathematics Subject Knowledge

Look for secure subject knowledge in mathematics being demonstrated through the following characteristics

Planning of mathematics

- Three-part lesson with a mental/oral starter, direct teaching session with independent activity and plenary
- Appropriate objectives used in all sessions
- A manageable number of groups noted with the group identified with whom they are to work intensively with
- Links to NC explicit and appropriate
- Key vocabulary highlighted
- Assessment opportunities clearly stated
- Key questions identified
- Key teaching points demonstrate secure understanding of the mathematics covered and knowledge of common pupil errors/misconceptions
- ICT integrated and supporting progress towards learning objectives
- Links to other topic areas within maths in addition to cross-curricular links

Teaching and management of mathematics lessons

- Objectives shared with pupils that makes the purpose and expectations of the lesson clear to them
- Use of a range of open and closed questions to promote learning
- Speaking and listening opportunities, such as 'buzz partners' and the use of barrier games, made in order for pupils to develop collaborative learning skills, reasoning skills, group interaction skills etc
- Focus on teacher and pupils' correct use of mathematical vocabulary
- Appropriate pace is maintained
- Strategies used to ensure that all children are participating, motivated and on-task
- Clear instructions given and strategies shared so that when children are working independently in a group, disruption is avoided as pupils know where to find resources, know what to do if they finish early and know what to do before asking the teacher for help
- Makes pupils aware of the time that they have to complete tasks with regular reminders
- Demonstrates/models and explains clearly new learning using an interactive whiteboard/ flipchart/ OHP/
- Appropriate use of resources used to support learning and teaching – numberlines/ hundred squares/ calculators etc

Monitoring and assessment of pupils

- Use of the plenary in addition to other formative assessment opportunities to inform planning
- Pupils make good progress due to accurate assessment and are aware of the next steps in their learning
- Records kept demonstrate knowledge of pupils achievement against mathematical key objectives;
Knowledge of pupil attainment against the national curriculum level descriptions demonstrated.

Characteristics for Grading Trainees

Name of trainee

Grade	Subject Knowledge
1	<p>Very good trainees' knowledge and understanding of the subjects which they teach and of the broader educational context in which they work are at a very high level. They use and apply their subject knowledge accurately and perceptively to consolidate and extend pupils' learning. They are confident and imaginative in their use of ICT, applying it productively to support their teaching and pupils' learning.</p> <p>They have in-depth knowledge of the National Curriculum, National Strategies, and relevant guidance and statutory requirements and use them well to support planning, teaching and assessment. They set their current teaching within a wider framework of national trends and initiatives, to provide a context for its improvement.</p>
2	<p>They are confident and up-to-date in their subject knowledge and use of ICT, which reflect the needs and requirements of the age range for which they have been trained. They use and apply their subject knowledge effectively in the context of what pupils need and have developed the ability to explain and communicate the concepts and skills of the subject to a high standard. They have good knowledge and understanding of the National Curriculum, National Strategies, guidance and statutory requirements.</p>
3	<p>Trainees have sound knowledge and understanding in the subjects or areas of learning they are trained to teach and are proficient in their use of ICT. They are able to describe and communicate relevant concepts and skills to pupils. They know and understand, as appropriate, national curriculum and national strategy frameworks, guidance and statutory requirements and use them to support their planning.</p>

Grade	Planning
1	<p>Their planning is consistently of a very high standard; objectives, activities, resources and outcomes are all matched very well to the needs of the varying groups of pupils taught. A wide range of teaching strategies is used, with a good understanding of the particular contributions different strategies make to pupils' gains in knowledge, understanding and skills.</p>
2	<p>Good trainees set well thought out, clear and precise objectives for lessons and sequences of lessons, which pupils know and understand, and they match the learning resources and the learning activities carefully to intended outcomes. They plan for the varying needs of individuals and groups in the class. Work is matched well to the range of pupils' achievement, with recognition of the value of diversity and of the different contributions pupils can make. Good trainees know how to manage time effectively in lessons.</p>
3	<p>Trainees set clear objectives for their lessons, but not always with the appropriate, specific detail, and this means that the match of activities and resources to intended outcomes is not always fully worked out. They take accounts of the needs of different groups of pupils and are able to differentiate their teaching accordingly with guidance from an</p>

	experienced teacher. They organise and manage time and resources to support their learning objectives.
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Grade	Teaching Strategies
1	Very good trainees employ effective classroom management strategies and techniques for the range of classes they teach, which ensure that there is always a highly purposeful working atmosphere in which the pupils learn at a substantial pace and enjoy what they do.
2	A range of teaching strategies is used and evaluated according to effectiveness and fitness for purpose.
3	Trainees are aware of the potential range of teaching strategies, but do not use them all with equal confidence in their teaching.

Grade	Pupil Achievement
1	They consistently enthuse and motivate pupils. Very good trainees have high and demanding expectations, based on thoughtful and thorough analysis of pupils' prior achievements. They are committed to raising achievement, and know how to accomplish this in ways appropriate to the pupils they are teaching.
2	Good trainees are committed to raising achievement. They have consistently high expectations of pupils and relate to them in a purposeful and positive way.
3	Trainees expect pupils to learn and aim to raise pupils achievement appropriately as a result of their teaching.

Grade	Evaluation of Teaching
1	Evaluation of their teaching is rigorous and accurate and focuses specifically on what pupils have achieved in lessons. It is used effectively to improve their teaching.
2	They think critically about the impact of their teaching on what all the pupils in the class learn.
3	They evaluate their teaching in order to improve it, but some may need the additional help of more experienced teachers to assess its impact on pupils' learning.

Grade	Assessment
1	They are adept and confident in using a range of assessment strategies, reflecting a clear understanding of the theory and practice of assessment. They are skilled at providing well-focused feedback and setting clear and precise targets for improvement. Their record keeping is detailed, containing accurate and useful assessments of individuals as well as analyses of the performance of groups or whole classes. They use assessment information effectively to inform planning and teaching.
2	Good trainees understand and use a range of formative and summative strategies at the appropriate time to assess pupils' achievements accurately and consistently and can recognise when pupils have made progress. They interpret and use the school's performance data to judge starting points and to target levels of attainment. They are methodical and systematic in recording and reporting pupils' achievements
3	Trainees use a range of assessment strategies and with the help of more experienced teachers, are able to identify pupils' individual needs. They are able to use the school's performance data to place the performance of the pupils they teach into context. They mark pupils' work constructively, provide helpful feedback, record, report achievement guided by schools practice.

Grade	Discipline
1	Very good trainees employ effective classroom management strategies and techniques for the range of classes they teach, which ensure that there is always a highly purposeful working atmosphere in which pupils learn at a substantial pace and enjoy what they do.
2	Good trainees establish good relationships with pupils and provide a positive climate for good behaviour and sustained work.
3	They establish a clear framework for classroom discipline, in line with the school's expectations. Relationships with pupils are sound, enabling pupils to learn effectively.

Grade	Corporate Life of the School
1	They play full part in the life of the school and establish very productive relationship with pupils, teachers and other adults. They take the initiative, think rigorously and pursue their professional development across the life of the school.
2	At the end of the placement they are recognised as having made a substantial and positive contribution to the corporate life and ethos of the school.
3	Trainees contribute usefully to the corporate life of the school and relate to pupils well, respecting their backgrounds and interests.

Acknowledgements

- School based tutor, trainee and ITT Manager at a Corby Junior School
- Partnership Development Schools initiative
- Loughborough University Media Services