



Mathematics Subject Leaders Wednesday 9th June 2021

Mathematics Deep Dive

- Ensure that a) you as subject leader and b) all teachers are familiar with the NC Aims for Mathematics
- What is 'unique' about the Mathematics curriculum at your school (i.e. what topics / units / themes have you introduced specifically to meet the needs of your pupils?)
- What is pupils' learning (over the course of their time at your school) building towards (by end of Y2 / Y6), including that of pupils with SEND? (How would you explain that the curriculum is 'ambitious')?
- Are all teachers clear as to what they are assessing re: pupil's learning (what criteria do you use to assess progress)?
- Do have an example (or 2/3) to demonstrate pupil's progress in an aspect of Mathematics?

New resources

Association of Teachers of Mathematics (ATM)

https://www.atm.org.uk/write/MediaUploads/Shop%20Images/Catalogue/NEW_ATM_Primary_Web_Cata_00811.pdf

Link to a set of 'free' resources (ATM)

<https://www.atm.org.uk/open-resources>

National Centre for Excellence in the Teaching of Mathematics

(support re: C-19 and curriculum prioritisation)

<https://www.ncetm.org.uk/in-the-classroom/teaching-maths-through-the-pandemic/support-for-primary-teachers/>

Mathematics deep-dive questions

- What training / support have you received for your role as SL for Mathematics?
- CPD provision do you offer to all staff (teachers and LSAs)?
- How do you support new staff to the school?
- How do you ensure that teachers and LSAs have the required subject knowledge?
- What curriculum do you follow in Mathematics and why?
- What would you say is unique about the Mathematics curriculum at your school?
- How do you ensure that class teachers build on pupils learning from the previous year?
- How is your curriculum planned progressively from year to year?
- What would you say are the strengths in pupils learning in mathematics and what aspects of their learning needs most improvement / what are you (or planning) to do to address this?
- How do you support pupils who get 'stuck' in lessons?
- How as the subject leader do you know what is happening in terms of pupils learning Mathematics across the school?
- How do teachers (and yourself) use information from assessments into future planning?
- How do you fill in any gaps in pupils learning / decide on interventions?
- What interventions are run / by who and how do you measure the impact of these – can you give me some examples?
- How do you address the individual needs of pupils who are disadvantaged?
- How does Mathematics contribute to the development of pupil's cultural capital?
- How do you use trips / visitors / the wider community to support the mathematics curriculum?
- What evidence do you have of the impact of the Pupil Premium funding?
- How are pupils with SEND supported? Do they make 'good' progress and how do you monitor this?
- What do you expect we will see in a learning observation?
- How are individual lessons planned to build on learning in previous lessons?
- What would you expect to observe an LSA to be doing in a lesson?
- How do you ensure that pupils use the correct subject specific vocabulary?
- How will you know that the/these teachers has good subject knowledge?
- What evidence should we be seeing to demonstrate that pupils are making good progress in this lesson?
- What are the links between the EYFS curriculum and KS1?
- What links are there between mathematics and the rest of the curriculum?
- What is your aim for all pupils when they leave at the end of Year 6?
- What is your understanding of Maths Mastery?

Cultural Capital

What is **cultural capital**? In educational terms, it refers to the bank of cultural experiences that students can gain from different cultural opportunities. E.g. Gallery visits, historic visits, music lessons, IT skills, dance lesson etc) Families have historically passed down these advantages to their children by providing them with these opportunities. Evidence shows that children with cultural capital do better in school and go on to do better in society, their career and the world of work. Schools can have a huge impact on equipping students with cultural capital.

An e.g.

What is Cultural Capital?

Cultural capital is the accumulation of knowledge, behaviours, and skills that a student can draw upon and which demonstrates their **cultural** awareness, knowledge and competence; it is one of the key ingredients a student will draw upon to be successful in society, their career and the world of work. Cultural capital promotes social mobility and success in our stratified society. **Cultural capital** gives a student power. It helps them achieve goals, become successful, and rise up the social ladder without necessarily having wealth or financial **capital**. **Cultural capital** is having assets that give students the desire to aspire and achieve social mobility whatever their starting point.

Policy Rationale:

At xxxxx School, we recognise that for students to aspire and be successful academically and in the wider areas of their lives, they need to be given rich and sustained opportunities to develop their cultural capital.

The school recognises that there are six key areas of development that are interrelated and cumulatively contribute to the sum of a student's cultural capital:

1. Personal Development
2. Social Development, including political and current affairs awareness
3. Physical Development
4. Spiritual Development
5. Moral Development
6. Cultural development

Summary of the key areas of coverage for each area of Cultural Capital Development:

1. **Personal development:**
 - a. Careers and Information, advice and guidance provision;
 - b. Personal Finance Education;
 - c. Employability skills, including work experience;
 - d. Citizenship, Personal, Social and Health Education provision;
 - e. The school's wider pastoral framework;
 - f. Growth mindset and metacognition - Resilience development strategies;
 - g. Transition support;
 - h. Work to develop confidence e.g. public speaking and interview skills;

- i. Activities focused on building self-esteem;
- j. Mental Health & well-being provision.

2. Social Development:

- a. Citizenship, Personal, Social and Health Education provision;
- b. Student volunteering and charitable works;
- c. Student Voice – Year Group and School Council;
- d. Nurture Group Access;
- e. Provisions linked to the school's Healthy Schools' Accreditation;
- f. Provisions linked to the school's accreditation as a Mental Health Champion School and its key role as a pilot school for the NHS Mental Health Trailblazers' programme;
- g. In school and wider community engagement programmes;
- h. Work experience and business engagement programmes;
- i. Access to counselling.

3. Physical Development:

- a. The Physical Education curriculum;
- b. Healthy Eating policies and catering provision;
- c. Anti-bullying and safeguarding policies and strategies, including the student-friendly policy and Student Anti-Bullying Charter;
- d. The Health Education dimension of the CPSHE programme, including strands on drugs, smoking and alcohol;
- e. The extra-curricular programme related to sports and well-being;
- f. The celebration of sporting achievement including personal fitness and competitive sport;
- g. Cycling proficiency training and Cycling to School Safely protocol;
- h. Activities available for unstructured time, including lunch and break times;
- i. Activity-based residential;
- j. The curricular programme related to food preparation and nutrition;
- k. Advice & Guidance to parents on all aspects of student lifestyle;
- l. The promotion of walking or cycling to school.

4. Spiritual Development:

- a. The Religious Education and Philosophy Curriculum;
- b. Our collective acts of worship and reflection;
- c. Support for the expression of individual faiths;
- d. Inter-faith and faith-specific activities and speakers;
- e. Visits to religious buildings and centres;
- f. Classes and seminars with speakers focusing on spiritual issues;
- g. School-linking activities – locally, nationally and internationally;
- h. The Assembly programme.

5. Moral Development:

- a. The Religious Education and Philosophy Curriculum Curriculum;

- b. The behaviour and justice framework underpinning the school's Behaviour Management policies;
- c. Contributions to local, national and international charitable projects.

6. Cultural Development:

- a. Citizenship Education;
- b. Access to the Arts;
- c. Access to the languages and cultures of other countries through the curriculum and trips and visits;
- d. Promotion of racial equality and community cohesion through the school's ethos, informing all policy and practice.

An e.g.

Our pupils are given every opportunity to participate in a wide range of learning experiences beyond their classroom, including trips to museums, theatres, adventure centres and community projects in and around London. They are also given regular opportunities to participate in school and national competitions to encourage more positive attitudes towards Mathematics. Cultural Capital is the essential knowledge that children need to prepare them for their future success – in the world of work, in relationships forged throughout life and as a valued contributor to society. Our aim is to give children the knowledge and skills to prepare them for what comes next in their lives. This includes the relevant vocabulary needed throughout their education and the opportunity to link maths to real-world problem solving.

From: Kapow Education

Wondering where to start with Ofsted's definition of cultural capital? Here's a digestible summary of what you need to know, plus some helpful and practical tips on where to start in helping develop your pupils' cultural capital in primary schools.

Here's what we'll be covering:

- Where did cultural capital come from?
- What's Ofsted's definition?
- Schools of thought: what are people saying?
- Approaches to developing cultural capital
- Free Kapow Primary lessons to help you develop cultural capital in your school
- Free cultural capital toolkit: staff powerpoint and templates

So where did the term cultural capital come from?

The original phrase comes from by the French sociologist Pierre Bourdieu in the 1970s, believing the more 'capital' you had, the more powerful your position was within society. This closely linked with Karl Marx's theory on fiscal capital (and capitalism) – the more capital you had, the better off you were.

D. Hirsch, Jr., Chairman of the Core Knowledge Foundation took this to another level by [developing the idea of 'cultural literacy'](#) – “the idea that reading comprehension requires not just formal decoding skills but also wide-ranging background knowledge”. In 1986 he published '[Cultural Literacy: What Every American Needs to Know](#)' which outlines all 'core topics' he believed American children needed to know to prepare them to be a successful adult.

This phrase hit the headlines again in 2013 when Michael Gove, then Secretary of State for Education, [gave a speech](#) where he promised the curriculum would ensure pupils had a “stock of knowledge”. Taking inspiration from E.D. Hirsch Jr, he argued 'cultural capital' would impact children from low-income backgrounds the most as “the accumulation of cultural capital – the acquisition of knowledge – is the key to social mobility”. This belief that cultural capital is 'knowledge' has been controversial amongst the teaching profession.

According to their school inspection handbook, Ofsted's definition of cultural capital is:

“As part of making the judgement about the quality of education, inspectors will consider the extent to which schools are equipping pupils with the knowledge and cultural capital they need to succeed in life. Our understanding of 'knowledge and cultural capital' is derived from the following wording in the national curriculum: 'It is the essential knowledge that pupils

need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement.”

Schools of thought: what are people saying about it?

There have been mixed views on Ofsted’s mandatory introduction of ‘cultural capital’ into the curriculum.

The thought behind its introduction is to expose disadvantaged children to cultural experiences and background knowledge that will equip them with cultural knowledge to propel them further in their education, careers and social development.

Some teachers at schools in more deprived areas believe this could have a positive impact on their pupils. Developing cultural capital within a school setting can give exposure to children to experiences that they may otherwise not have had. Alan Boyd, a teacher, says that he feels he is “providing opportunities and experiences that our parents can’t pass on to their children. Even simple things like going to a beach or farm that many children take for granted. Our school is in a deprived area so not many of the parents own cars. This stops them from having day trips and travelling away from their immediate area.”

Is Ofsted’s definition too vague?

The [Cultural Learning Alliance](#) has openly stated that the loose definition of ‘cultural capital’ by Ofsted allows schools to develop their own interpretation of what the phrase means in a way that is best for their school and pupils. They believe schools should define ‘cultural capital’ in a way to “celebrate and embrace the different backgrounds, heritage, language and traditions of all the children living in this country”.

Similarly, [Teacher blogger Mrs Beaton](#) argues, “Let’s shift our thinking from cultural transactions to cultural openness and acceptance. That my heritage might be different to yours but neither are ‘less than’ when the comparative financial cost is totted up and someone hands the school the receipt.”

Contributing to [The Guardian](#) newspaper, Professor Diane Reay emphasises this new requirement doesn’t just confuse what ‘culture’ to develop but also the issue of class: “key elements of cultural capital are entwined with privileged lifestyles rather than qualities you can separate off and then teach the poor and working classes.”

Computing: Bletchley park – playing with sound:

Children learn the key features of a radio play before then creating and editing a radio play set at Bletchley Park during the war. [Go to this lesson >](#)