**The ‘How to Guide’ for the CALM primary science resources**

**About the resource**

**Purpose**

The documents are designed to support subject leaders in planning a manageable long-term catch-up programme. The CALM approach proposes that for those children affected by corona school closure their current teacher and future teachers will **Compare- Adjust- Listen and Make meaningful** an extended plan to catch up over time.It is intended, with careful mapping, that over 2-3 years pupils will have acquired as much as possible of the key knowledge and skills for key transition points by enabling future teachers to identify and plan for the gaps.

This resource has been written to enable you to plan catch-up from September 2020 but, should science education continue to be disrupted into the 2020-21 academic year, it will also help you to keep the plan under review and make adjustments as necessary.

It is intended that, by distributing catch-up over two or three years, it will be possible to use approaches based on enquiry and first-hand experience, working towards conceptual understanding, rather than quick-fix cramming of facts. The inclusion of suggested assessment activities signals the even greater than usual importance of starting the teaching at the point where the children are, so that gaps are identified and teaching time in all units of work is used efficiently, focusing on what children do not already know and understand.

**What resources are included?**

* **Information and guidance documents,** (one for each year group. Y1-6)
* **Working scientifically information and mapping documents** (one for each year group. Y1-6)
* **Catch-up plan templates** (template options for a 1-year, 2-year and a 3-year plan)
* **Catch-up plan examples** (illustrative from year 4, from year 3 and from year 2)

**How is each resource relevant?** (see also: The at a glance overview on page 5)

**Information and guidance documents,** one for each year group.

Years 1 to 5 each follow the same format. All national curriculum content statements are listed alongside the end of key stage Teacher Assessment Framework (TAF) statement that they contribute to. This provides a clear feedforward from the current teacher to inform the SL of the gaps and the urgency or priority of those missed objectives.

Each potential gap is mapped to when children will next need to know, use or apply the information, with suggestions made for teaching the catch up either within the spiral of when it would naturally be revisited and extended or by building in additional catch-up lessons/units.

There is a supportive notes column that adds further detail. A RAG rating indicator provides a quick glance priority for the future response as follows:

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| Red: | Specific planning will be needed to ensure this is taught, without explicit provision the learning missed through corona would not be caught up in the next two years. |
| Amber: | Needs to be planned for but can, with careful consideration, be woven into existing units of work through consolidation and application of earlier learning. |
| Green: | should be naturally picked up in later units of work, although starting points may need to be adjusted. |

All documents are based on the progression of knowledge within and between strands of the national curriculum when taught in the identified year groups as per the NC (2014). Schools with mixed-age groups and 2-year planning cycles or schemes of work which place content in alternative year groups will need to consider these documents alongside their own curriculum progression and long-term plan.

Initial assessment activities are suggested and signposted. These are intended for elicitation at the time of next teaching of the content knowledge. Listening to pupils’ ideas through good assessment for learning will be most important to identify whole class gaps, establish children’s different starting points and plan meaningful lessons that take account of this assessment information. Approaches to effective elicitation are taken from widely available resources that represent recognised good practice to access prior learning and identify misconceptions. The signposting tips are a starting point and do not represent an exhaustive or compulsory list. A larger range of assessment resources and approaches are listed on page 4.

The year 6 document is intended to support transfer conversations with secondary school colleagues about gaps to be anticipated from year 6 (Corona year group) compared to the end of KS2 statutory expectations. Links to statements from the KS3 curriculum are identified with suggested diagnostic questions from the BEST resources. There are no links to specific future units of work as these will vary according to how KS3 teaching is organised in individual schools. Separate conversations and information may be needed for pupils who would not have been expected to achieve the end of KS2 standard and who have gaps from earlier years that could not be addressed before transfer.

In separate infant and junior schools, the catch-up plans for year 1 and year 2 content can also play an important role in transfer conversations this year and in 2021. There is no document for Reception year as content is more variable between schools but gaps in knowledge expected as prior learning from EYFS will also need to be taken account of.

**Working scientifically information and mapping documents**, one for each year group

The working scientifically information and mapping documents enable the subject leader alongside current teachers and future teachers to construct an overview plan of working scientifically for the corona affected year group and identify which enquiry types and working scientifically skills/aspects of the enquiry process were missed.

The overviews for the current (Corona) year and the following year will support decisions about which enquiries or skills-based activities to include in catch-up to be taught in 2020-21. TAPS focussed assessment activities are included as examples of assessment with clear focussed success criteria for each part of the enquiry cycle. Whilst some examples are included, the enquiry questions, activities and assessment opportunities on the completed document will be specific to each school and are likely to vary by school.

**Catch-up plan Templates**

The **catch-up plan templates** are for the co-creation of a long-term plan for each corona year group. Having created the long-term plan teachers will refer to this to inform their own medium-term planning. It will need to be available ongoing for teachers in 2020 and 2021. This plan will follow the class until all catch-up is completed and may need to be adjusted if there is disruption of learning in future terms. There are therefore templates for a 1-year, 2-year and 3-year plan. Depending on the content missed and how quickly you intend/are able to catch up you are likely to need the 3-year plan for content missed in years 1 to 3 (you may even want to create a 4-year plan for year 1) and the 2-year one for content missed in year 4. The 1-year plan is for content missed in year 5 although, depending on how much has been missed, you may decide that it will not be possible to fit in all catch-up during year 6 and so create a 2-year plan that postpones teaching of some Y5 or 6 content until KS3. This information will need to be shared at secondary transfer in 2021.

**Catch-up plan Examples**

There are also example catch-up plans:

Years 5&6 showing planning for catch-up of content missed in year 4,

Years 4-6 showing planning for catch-up of content missed in year 3

and years 3-4 showing planning for catch-up of content missed in year 2.

These examples are based on a hypothetical school, showing one possible way of planning catch-up for one possible combination of missed units. These act only to illustrate how the documents can be used and are a reference to adapt and not a model to copy.

**Useful Signposting**

**Resources and approaches for initial assessment and assessment of working scientifically**

* Explorify (range of activity types) <https://explorify.wellcome.ac.uk/>
* Concept Cartoons (Book 1 KS2-3, Book 2 KS3) – Stuart Naylor and Brenda Keogh [www.millgatehouse.co.uk/](http://www.millgatehouse.co.uk/)
* Science questions (KS1-LKS2) – Stuart Naylor and Brenda Keogh [www.millgatehouse.co.uk/](http://www.millgatehouse.co.uk/)
* Active Assessment (KS1-3) – Stuart Naylor, Brenda Keogh and Anne Goldsworthy
* Explore, engage, extend – Tracy Tyrrell [www.tts-group.co.uk/explore-engage-extend/1019177.html](http://www.tts-group.co.uk/explore-engage-extend/1019177.html)
* Bright ideas - PSTT <https://pstt.org.uk/resources/curriculum-materials/bright-ideas>
* BBC Bitesize (mostly quizzes) KS1 <https://www.bbc.co.uk/bitesize/subjects/z6svr82>

KS2 <https://www.bbc.co.uk/bitesize/subjects/z2pfb9q>

* Sorting activities – objects, pictures, words or statements.
* Knowledge harvests, thought showers, mind maps and KWL grids
* TAPS focussed assessment activities <https://pstt.org.uk/resources/curriculum-materials/assessment>

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| **Document** | **Purpose** | **Audience** |
| **Information and guidance documents**  One per year group  Post corona (2020) information and guidance on national curriculum content knowledge requirements. | Includes national curriculum statements for **all** content areas and indicates where catch-up could be built into the learning progression. Enables SL to prioritise and create a long-term plan, over the next two (or more) years, for what has been missed. References sources of elicitation activities. | Feed forward from the current teacher (Spring & Summer 2020)  Subject leader informed of gaps and signposted by the guidance. |
| **Working scientifically information and mapping documents**  One per year group  Post corona (2020) information and mapping of national curriculum working scientifically requirements. | Enables SL to map enquiry teaching across the year, identify gaps and select enquiries for inclusion in the catch-up plan. Prioritises the full enquiry cycle and the range of enquiry types. References TAPS focused tasks. | Mediated conversation. Needs involvement of both the teacher from the current year and the future teacher as enquiry examples and the focus of the enquiry will vary by cohort. |
| **Catch-up plan Templates**  Blank templates to create a catch-up (long-term) plan over one, two or three years | A template tool to focus on the units that have been missed. Mediated by the SL to inform MTP | SL & Future teachers at transition points |
| **Catch-up plan Examples**  Three examples showing how a plan could be created for one combination of missed content from Y2 (the Y3&4 plan), Y3 (the Y4-6 plan) or Y4 (the Y5&6 plan) | Exemplification over two and three years – catch up is not a one-off hit. Children will need to be supported over several years to build concepts on earlier knowledge. | Reference for the SL  SL will create own versions according to school circumstances |
| **Introduction and ‘How to Guide’**  Guides to the purpose and use of the documents listed above | The purpose of the resource as a whole and the individual documents and advice on how to use them. | Reference for the SL |

**Overview -at a glance - (What & Why)**

**How to use the documents**

Conversation between each current teacher/year group and the SL to complete the **Working scientifically information and mapping document** for that year group.

* What enquiries were planned for last year?
* Information about the enquiry type and skills focus
* Which were taught – in class or as home learning?

For Y6 you will need a completed document to support planning of catch-up for the current Y5 class but identifying missed enquiries will only be important of the secondary school requires this information.

For years 1-5 SL uses the information to complete a Catch-up plan on a **Catch-up plan template.**

Annotate top section of catch-up plan to show missed/compromised units.

Conversation between each current teacher/year group and SL using the **Information and guidance** **document** for that year group.

* Which units of work were compromised?
* Which NC statements were not taught/ partially taught/only covered by some pupils?

Complete first column of lower section of Catch-up plan with relevant national curriculum statements and add notes in second column.

Year 6 Information and Guidance document is annotated during conversation with Y6 teacher and discussed with / passed to the secondary school to inform KS3 catch-up planning.

Complete the rest of the Catch-up plan (SL and teachers, or SL using information from conversations with teachers), fitting in catch-up where appropriate and manageable. Highlight top section of plan to show future units impacted by catch-up and add any stand-alone catch-up units.

SL may wish to create an amended whole school long-term plan for reference.

Conversation between each current teacher/year group, the next teacher/year group and SL using completed Working scientifically information and mapping documents for both years.

* Where are the gaps in coverage (enquiry types and skills) for the children moving up?
* Considering the planned enquiries for the next year, which gaps are highest risk?

Next teacher/year group uses the catch-up plan to create new medium-term plans.

Catch-up plan follows children into future year(s) (reviewed and updated as necessary) until gaps are all addressed.