## **Science of Teaching**



# Curriculum and Scope and Sequence Development for Literacy and Numeracy: Guiding Principles Checklist



This document offers a set of guidelines in the form of a checklist to aid governments, implementing partners, and other stakeholders in the process of developing a curriculum and scope and sequence for foundational literacy and numeracy. It is intended as a companion to the <a href="How-to Guide on Curriculum">How-to Guide on Curriculum</a> and Scope and Sequence Development for Literacy and Numeracy. This checklist is divided into two parts: Part 1 focuses on the curriculum, and Part 2 focuses on the scope and sequence.

KEY TERMS	
KEY TERM	EXPLANATION
Curriculum	A document that outlines what students are expected to learn in each grade, the methods of instruction, and ways to measure their understanding and proficiency in each subject or area of study. It often includes:
	WHAT: The skills children are expected to know by the end of each school year
	• WHEN: Guidance on pacing and how to distribute the skills throughout the school year
	<ul> <li>HOW: Textbooks, supplemental materials, teachers' guides, suggested instructional activities, and information on what instruction should look like</li> </ul>
Syllabus (plural: syllabi)	A curricular document that indicates in detail the learning objectives or competencies for students by grade (and often by week or term) for a particular subject or area of study. It might also include other information such as themes and instructional approaches.
Productive school weeks	Weeks when actual instruction is taking place, excluding exam weeks, registration and closing week, holidays, and similar events.
Productivity order of letters (graphemes)	An ordering of letter-sound (grapheme-phoneme) correspondences based on each grapheme's relative usefulness in constructing meaningful words, which is related to the grapheme's appearance in high-frequency words and overall frequency in the language. Note: Teaching order does not always follow productivity order exactly due to additional considerations such as which letter sounds are easiest to pronounce and hear in isolation, which ones are most similar to those in a previously learned orthography, etc. However, all else equal, taking productivity into account in the teaching order helps students be able to read and write more words from earlier on in the literacy lessons.
Teaching order of letters (graphemes)	The order in which letter-sound (grapheme-phoneme) correspondences are taught to students. Several considerations influence the teaching order, including each grapheme's relative usefulness in making meaningful words (see productivity order), salience and contrast of the first few symbols, relationships to any previously learned orthographies, etc.

Decodable words	Words that contain only the letter-sound correspondences that have been previously taught and can therefore be accurately sounded out. More information can be found <a href="here">here</a> (pages 2–3).
Sight words	Words that have one or more letters or spelling patterns that have not yet been taught to students, or irregular spellings that cannot be systematically decoded. The words are taught to be recognized "by sight," as a whole, without decoding.
Language of instruction	The language(s) used as the medium for teaching. For lower-primary classes, the preferred language is often the language that students speak at home.
Scope and sequence	A document that details the content to be learned (scope) and the order in which it is to be learned (sequence). For an example, see <a href="here">here</a> .
Universal design for learning (UDL)	A framework intended to optimize teaching and learning for children of all needs and abilities, especially children with disabilities. Guidance on how to incorporate UDL principles into early grade reading programs can be found <a href="here">here</a> .

# **PART 1: Curriculum and Syllabi**

Curriculum and syllabi outline the overall learning objectives for each grade, typically organized by term. These documents play a crucial role in the development of educational materials for teaching and learning. It is thus essential for curriculum guidelines and syllabi to align with contemporary best practices and principles on teaching reading, writing, and mathematics.

### **Curriculum Checklist**

What is	What is the status of the curriculum or syllabi for the subjects of literacy and math?	
1	One or more documents are available that outline what students are expected to learn in each grade for the subjects of literacy and math.	
1	The documents provide guidance on how to distribute the learning objectives and content throughout the school year.	
	The documents provide guidance on instructional approaches and activities for each target skill.	
	The documents provide guidance on measuring the mastery of the learning objectives and on <u>assessment</u> (frequency, integrated practices, using the information to improve learning, etc.).	
	For literacy, the curriculum addresses all of the five core components of reading, plus writing.	
	For math, the curriculum addresses all the foundational domains (i.e., numbers, operations, algebra, measurement, geometry, spatial awareness, and statistics and data analysis).	
	The documents reflect clear and appropriate developmental progressions, with content becoming systematically more difficult at a reasonable pace.	
1	The documents are reviewed and updated on a regular cycle to reflect current best practices in the teaching of literacy and math.	
Do the c	curriculum guidelines or syllabi indicate the time allocated to literacy and math?	
	The documents indicate the number of productive school weeks per term and per school year.	
1 1	The documents indicate the number of hours in a week allocated to literacy and math instruction in each grade.	



Do the curriculum guidelines or syllabi provide information on the following key topics for lit instruction?	eracy
The documents provide learning objectives for print knowledge, the five components of (phonemic awareness, alphabetics, vocabulary, fluency, comprehension), and writing in grades.	
The documents take productivity into consideration in the teaching order of letters (graph or if the teaching order is not prescribed in the documents, they recommend that product taken into account when establishing the teaching order.	
The curriculum incorporates a variety of text genres, including decodable text, narrative informational text, and poetry.	texts,
The curriculum draws linkages between oral language, reading, and writing.	
The documents support using direct and explicit instruction where appropriate (e.g., for sound correspondences).	letter-
The documents support using a gradual release of responsibility from teacher to studen the "I Do, We Do, You Do" approach) where appropriate. More information on this mode found <a href="here">here</a> and <a href="here">here</a> .	
Do the curriculum guidelines or syllabi provide information on the following key topics for m instruction?	ath
The documents provide learning objectives for numbers and operations, algebra, measurements and spatial reasoning, and statistics and data analysis.	urement,
The learning objectives focus on conceptual understanding as well as procedural skills.	
The curriculum is "spiral" in that learning within a domain is spread out and concepts are repeatedly over months and across grades. See the How-to Guide on Numeracy page 3.	
The documents support using high-impact <u>instructional strategies</u> such as mathematical explanation and justification, and connections between formal and informal mathematical explanation.	
Do the curriculum guidelines or syllabi provide information on cross-sectional issues relevantiteracy and math instruction?	t to
The documents indicate important themes or topics to be addressed in the materials.	
The documents provide information on gender-inclusive materials.	
The documents provide information on <u>UDL</u> .	
The documents provide information on incorporating <u>social-emotional learning</u> into the content and instruction.	e subject
Do the curriculum guidelines or syllabi provide information on literacy in a bilingual or multil setting?	lingual
The documents recommend the use of a <u>language of instruction</u> that is familiar to the c	hildren.
The documents include guidance and approaches on how to support children who are lean additional language.	earning in
The documents take into account the curricular, pedagogical, and sequencing implication of bilingualism and biliteracy when students transition from instruction and reading in clanguage to another (if applicable).	



# **PART 2: Scope and Sequence**

The scope and sequence detail the content to be learned (scope) and the order in which it is to be learned (sequence). They are essential documents guiding the elaboration of teaching and learning materials. For optimal results, it is important that the target content and skills be carefully organized, building higher-order skills systematically on lower-order skills, as well as progress at a reasonable pace so as to not overwhelm students with too much too fast.

### **Scope and Sequence Checklist**

Is there	Is there an existing scope and sequence?	
A	scope and sequence is available for each grade, by term.	
	he scope and sequence was developed by content experts in consultation with linguists and xperts in the language of instruction.	
1 1	he scope and sequence has been recently reviewed and updated if necessary to align with urrent best practices.	
Is the so	cope and sequence in line with the syllabus and school context?	
Т	he scope and sequence is aligned with the curriculum or syllabus.	
Т	he scope and sequence is aligned with the productive number of school weeks.	
	he scope and sequence is aligned with the number of hours allocated to the subject in a chool week.	
	or multilingual contexts, the scope and sequence is tailored to the specific language for which naterials need to be developed.	
Does th	e scope and sequence include all essential literacy and mathematics content?	
a	the scope and sequence includes print knowledge, the five components of reading (phonemic wareness, alphabetics, vocabulary, fluency, comprehension), and writing (handwriting, pelling, composition, etc.).	
	he scope and sequence includes numbers and operations, algebra, measurement, geometry nd spatial reasoning, and statistics and data analysis.	
	e scope and sequence establish parameters to ensure consistency and appropriate es of difficulty?	
	he scope and sequence uses a teaching order for letters (graphemes) that is based at least in art on productivity.	
	he scope and sequence defines the number and selection of the letters (graphemes) to be earned each week.	
	he scope and sequence indicates the number and selection of decodable words, sight words, nd vocabulary by week.	
ir	the scope and sequence indicates the difficulty of texts for different units/terms (e.g., information about the word length, sentence length, and percentage of vocabulary that needs to be repeated).	
Т	he scope and sequence indicates genre or text type for each unit.	
	he scope and sequence indicates parameters for text length, and the texts progressively get onger and more complex in language structure.	



The scope and sequence has learning objectives and content for all language skills (reading, writing, speaking, and listening).
The scope and sequence identifies desired instructional activities or routines to be further refined by writers.
The scope and sequence promotes gender inclusiveness in <u>texts</u> , <u>illustrations</u> , and <u>instructional activities</u> .
The scope and sequence incorporates <u>UDL</u> principles.
The scope and sequence includes review lessons (e.g., every fifth, sixth, or seventh lesson reviews the content of the previous lessons).

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