



Mathematics

K–10 Draft Syllabus

Consultation Report

November 2011

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1 Executive summary

Introduction

The *Mathematics K–10 Draft Syllabus* Consultation Report provides a brief description of the consultation process and a summary and analysis of all feedback received. The summary analysis outlines confirmation of the general directions of the draft syllabuses as well as key matters raised that require action and the amendments that will be made in response.

The Consultation Report presents data and findings gathered through 385 survey responses, 26 written submissions and Board Curriculum Committee (BCC) meetings, 1 stakeholder meeting and 11 teacher meetings.

In general, the *Mathematics K–10 Draft Syllabus* was received very positively by teachers, other stakeholders and the broader community. The great majority of respondents favoured the decision taken in NSW to maintain a stage-by-stage approach to the structure of the curriculum. Mathematics teachers indicated that they were particularly pleased to see that the current structural approach to Stage 5 has been retained, allowing for multiple pathways and endpoints to meet the diverse needs of students. The embedding of the four proficiency strands, ‘Working Mathematically’, into the content has been very well received and it is envisaged that this will encourage greater engagement with the strands.

Key matters

The major issues that emerged from the consultation include:

- the breadth of the draft syllabus outcomes means that they lack sufficient clarity for the development of a common understanding by teachers
- the breadth of the draft syllabus outcomes means that they lack sufficient specificity for assessment and reporting purposes
- the final syllabus should include a K–10 continuum of ‘Key Ideas’, as in the current Mathematics K–10 syllabuses, for the assistance of teachers
- the amount of content in some Stages should be reduced where possible and appropriate
- the assessment advice in the syllabus needs to be more specific and to facilitate a more consistent approach in schools to A–E reporting of student achievement
- clarification is required in the syllabus about course options for students with special education needs
- the Life Skills outcomes and content in the syllabus needs to be clearer and to be reviewed for its appropriateness for students with special education needs
- appropriate forms and levels of support are needed for teachers to implement the new *Mathematics K–10 Syllabus*.

Proposed actions in response to consultation feedback

- Significant work will be undertaken to review the current outcomes, and include additional outcomes where appropriate, in order to increase the clarity and specificity of the draft outcomes.
- A K–10 continuum of ‘Key Ideas’ is to be developed for inclusion in syllabus support materials

- The *Mathematics K–10 Draft Syllabus* will be examined with a view to reducing the amount of content across K–10.
- Further advice in relation to assessment is to be developed for inclusion in the syllabus support materials.
- Advice in the syllabus regarding course options for students with special education will be reviewed and clarified where necessary.
- The Life Skills outcomes and content will be reviewed in terms of its clarity and appropriateness for students with special education needs in the further development of the syllabus.
- A range of materials will be developed to support teachers in the delivery of the new syllabus, with particular focus on content new to K–10 Mathematics or new to a particular stage of the curriculum

A summary of key matters raised and proposed actions is contained in section 4 of the report.

2 Background information

The Board of Studies began its syllabus development process for K–10 Mathematics following state and territory education ministers' endorsement of the Australian curriculum content descriptions for Foundation (Kindergarten in NSW) to Year 10 English, Mathematics, Science and History in December 2010.

Implementation of the Australian curriculum is the responsibility of states and territories. In NSW, curriculum is delivered via syllabuses approved by the NSW Minister for Education. The Board of Studies develops syllabuses for use by all NSW schools.

The *Mathematics K–10 Draft Syllabus* has been developed to include the Australian curriculum content descriptions.

The Board of Studies conducted widespread consultation in Terms 2 and 3, 2011 to engage stakeholders and to seek their feedback on the draft syllabus. The consultation program consisted of:

- a meeting of the BCC for K–10 Mathematics on 15 August 2011
- a stakeholder meeting on 16 August 2011
- afternoon teacher meetings at:
 - Tumby Umbi on 21 June 2011
 - Baulkham Hills on 20 July 2011
 - Bankstown on 25 July 2011
 - North Ryde on 27 July 2011
 - Broken Hill on 28 July 2011
 - Goulburn on 3 August 2011
- an online survey on the Board of Studies website for the period 14 June to 22 August 2011
- written submissions from:
 - NSW Department of Education and Communities
 - NSW Department of Education and Communities, Sydney Region
 - Catholic Schools Office – Diocese of Broken Bay
 - Catholic Education Office – Diocese of Lismore
 - Catholic Education Office – Sydney Region
 - Catholic Education Office – Diocese of Wilcannia-Forbes
 - Catholic Education Office – Diocese of Wollongong
 - NSW/ACT Independent Education Union
 - NSW Teachers Federation
 - Mathematical Association of New South Wales
 - Australian Association for Special Education NSW
 - NSW Primary Principals' Association
 - Central Coast Teaching Principals' Network
 - St Anthony's Primary School, Kingscliff
 - Mater Dei Catholic Primary School, Wagga Wagga
 - St Finbarr's School, Byron Bay
 - 11 individuals.

In addition, the Board of Studies conducted targeted consultation meetings on particular aspects of the syllabus. The targeted consultation program consisted of:

- whole-day Primary teacher meetings at:
 - Bathurst on 11 August 2011
 - Maitland on 19 August 2011
 - Wagga Wagga on 23 August 2011
 - St Marys on 26 August 2011

- special education meetings at:
 - the Offices of the Board of Studies on 12 August 2011
 - The Hills School on 23 August 2011
 - Fisher Road School on 30 August 2011
 - St Edmund’s School on 1 September 2011

Professional associations and schooling sectors conducted a range of activities during the consultation period to inform feedback to the Board.

3 Summary of respondents

Consulation stakeholder and teacher meetings

1 stakeholder, 1 BCC and 10 teacher meetings

Stakeholders	14	BCC members	12	Teachers	355
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Online survey respondents

385 online survey responses

Years of schooling:

Kindergarten to Year 6	187	Years 7 to 10	111	Total	298
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Sector:

Government	194	Catholic	57	Independent	41
Other	6				

Responses from:

Principals	21	School Executives	51	Teachers	175
Parents	5	Students	7	Other	39

Number of people contributing to survey response:

1	191	2	23	3	19
4	10	5	9	6 or more	46

3.1 Quantitative analysis of online survey responses

Due to rounding, some percentages may not total 100%.

Survey item	Number of responses		Strongly agree		Agree		Disagree		Strongly disagree	
	K–6	7–10	K–6	7–10	K–6	7–10	K–6	7–10	K–6	7–10
Rationale										
The rationale describes the nature of mathematics in broad terms and explains the place and purpose of the subject in the curriculum.	183	104	17%	19%	80%	72%	3%	5%	0%	4%
The rationale reflects a contemporary view of mathematics.	182	105	13%	14%	81%	74%	6%	8%	0%	4%
Aim										
The aim provides a statement of the overall purpose of the syllabus.	180	100	14%	21%	79%	71%	6%	3%	0%	5%
Objectives										
The objectives define in broad terms the knowledge, understanding and skills, values and attitudes to be developed through the study of mathematics.	173	94	18%	26%	77%	66%	3%	5%	1%	3%
Outcomes										
The outcomes provide clear statements of the intended results of teaching mathematics in each stage.	164	91	12%	18%	63%	64%	20%	11%	6%	8%
The outcomes provide a basis for measuring and reporting student achievement.	162	92	7%	16%	59%	60%	27%	18%	8%	5%
Content										
The content organisation and structure are appropriate to mathematics.	151	86	15%	27%	72%	60%	11%	7%	3%	6%
The sequence of content is logical.	150	86	14%	17%	72%	72%	13%	6%	1%	5%
The sequence of content is appropriate to the students' stage of development.	151	86	9%	14%	72%	63%	15%	19%	4%	5%

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Survey item	Number of responses		Strongly agree		Agree		Disagree		Strongly disagree	
	K–6	7–10	K–6	7–10	K–6	7–10	K–6	7–10	K–6	7–10
The content makes clear what students should learn in mathematics.	150	85	13%	25%	69%	69%	15%	2%	3%	4%
The syllabus caters for the needs of all students.	148	86	6%	14%	60%	51%	28%	31%	6%	3%
There is a clear relationship between the objectives, outcomes and content.	146	81	8%	14%	72%	68%	17%	12%	3%	6%
Appropriate emphasis is given to the cross-curriculum areas in the content.	150	81	5%	12%	75%	63%	17%	19%	3%	6%
The cross-curriculum areas are represented in authentic ways.	150	81	5%	11%	69%	57%	23%	25%	3%	7%
The continuum of learning, presented through outcomes, content and stage statements, provides a useful description of the scope and sequence of learning in mathematics from Early Stage 1 to Stage 5.	148	82	7%	20%	74%	63%	14%	9%	5%	9%
The stage statements are an appropriate summary of what students know and can do by the end of the stage of learning.	144	81	11%	14%	71%	69%	15%	12%	3%	5%
The syllabus forms a sound basis for developing teaching and learning programs.	143	80	13%	25%	63%	58%	17%	9%	6%	9%
Existing resources can be used to teach the content.	148	81	14%	20%	70%	54%	12%	20%	3%	6%
Years 7–10 Life Skills										
There is a clear relationship between the syllabus objectives and the Years 7–10 Life Skills outcomes.	n/a	67	n/a	7%	n/a	81%	n/a	9%	n/a	3%
Years 7–10 Life Skills outcomes provide a sound basis for guiding assessment and reporting of student achievement.	n/a	66	n/a	9%	n/a	76%	n/a	12%	n/a	3%
Years 7–10 Life Skills outcomes and content provide sufficient scope for developing programs for students with special needs.	n/a	66	n/a	8%	n/a	76%	n/a	14%	n/a	3%
Years 7–10 Life Skills content adequately describes the scope of each outcome.	n/a	66	n/a	9%	n/a	79%	n/a	9%	n/a	3%

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Survey item	Number of responses		Strongly agree		Agree		Disagree		Strongly disagree	
	K–6	7–10	K–6	7–10	K–6	7–10	K–6	7–10	K–6	7–10
Assessment										
The assessment advice will assist teachers in making judgements about student achievement in a standards framework.	140	72	6%	10%	60%	69%	29%	14%	4%	7%
The advice on assessment strategies will assist teachers to apply the principles of assessment for learning.	140	73	7%	15%	63%	68%	24%	12%	6%	4%
The assessment advice for Years 7–10 Life Skills is appropriate.	n/a	66	n/a	12%	n/a	70%	n/a	14%	n/a	5%

4 Summary of key matters raised and proposed actions

Key matters	Proposed actions
<p>Outcomes</p> <p>The breadth of the draft syllabus outcomes means that they lack sufficient clarity for the development of a common understanding by teachers.</p> <p>The breadth of the draft syllabus outcomes means that they lack sufficient specificity for assessment and reporting purposes.</p>	<p>Significant work will be undertaken to review the current outcomes, and include additional outcomes where appropriate, in order to increase the clarity and specificity of the draft outcomes.</p>
<p>Continuum</p> <p>The final syllabus should include a K–10 continuum of ‘Key Ideas’, as in the current Mathematics K–10 syllabuses, for the assistance of teachers.</p>	<p>A K–10 continuum of ‘Key Ideas’ will be developed for inclusion in syllabus support materials.</p>
<p>Amount of content</p> <p>The amount of content in some stages should be reduced where possible and appropriate.</p>	<p>The <i>Mathematics K–10 Draft Syllabus</i> will be examined with a view to reducing the amount of content across K–10.</p>
<p>Assessment</p> <p>The assessment advice in the syllabus needs to be more specific and to facilitate a more consistent approach in schools to A–E reporting of student achievement.</p>	<p>Further advice in relation to assessment is to be developed for inclusion in the syllabus support materials.</p>
<p>Students with special education needs</p> <p>Clarification is required in the syllabus about course options for students with special education needs.</p> <p>The Life Skills outcomes and content in the syllabus needs to be clearer and to be reviewed for its appropriateness for students with special education needs.</p>	<p>Advice in the syllabus regarding course options for students with special education will be reviewed and clarified where necessary.</p> <p>The Life Skills outcomes and content will be reviewed in terms of its clarity and appropriateness for students with special education needs in the further development of the syllabus.</p>
<p>Support Materials</p> <p>Appropriate forms and levels of support are needed for teachers to implement the new <i>Mathematics K–10 Syllabus</i>.</p>	<p>A range of materials will be developed to support teachers in the delivery of the new syllabus, with particular focus on content new to Mathematics K–10 or new to a particular stage of the curriculum.</p>

5 Analysis

5.1 Rationale

Summary

Overall feedback for the rationale of the *Mathematics K–10 Draft Syllabus* was positive. The majority of survey respondents from both Primary (97%) and Secondary (91%) indicated agreement with the statement that the draft rationale describes the nature of mathematics in broad terms and explains the place and purpose of the subject in the curriculum. There was also strong agreement from both Primary (94%) and Secondary (89%) survey respondents that the draft rationale reflects a contemporary view of mathematics.

Several respondents expressed concern over the breadth of language of the rationale and a lack of recognition of the importance of information and communication technology (ICT), the relationships between mathematics and other learning areas and lack of recognition of students with special education needs.

Feedback affirming the rationale

Feedback	Sources
The rationale is clear, concise and informative.	CEOSYD CEOWF Survey Submission 2
The rationale contains good links to real-life applications of mathematics.	CEOSYD
The rationale promotes 21st century learning.	DECSYD Consultation meeting (1)
The rationale recognises the richness and creative opportunities that learning mathematics provides for students.	CEOL Submission 2 Submission 3 Consultation meeting (1)

Key matters raised and proposed actions

Key matters	Sources	Proposed actions
<p>Language/relevance of draft rationale</p> <p>The language of the rationale is very broad and is not accessible to people other than trained Mathematics teachers.</p>	CEOSYD Survey	The language level is seen as appropriate for fulfilling the purpose of the rationale both accurately and succinctly, while maintaining subject integrity.

Key matters	Sources	Proposed actions
<p>Aspects of the draft rationale, such as ‘the elegance and power of mathematical reasoning’ and ‘mathematics ... providing opportunities for originality, challenge and leisure’ will have little relevance for Mathematics teaching and learning at the Primary level.</p>	<p>Survey</p>	<p>The text ‘the elegance and power of mathematical reasoning’ is drawn directly from the <i>Australian curriculum: Mathematics</i> rationale. The text ‘opportunities for originality, challenge and leisure’ is drawn directly from the current NSW K–10 syllabuses. The level of these opportunities will vary from stage to stage and for different groups of students.</p>
<p>Suggested additions/changes</p> <p>The draft rationale should be more representative of the <i>Australian curriculum: Mathematics</i> rationale.</p> <p>Contemporary views need strengthening, including in relation to information and communication technology (ICT).</p> <p>The draft rationale does not include reference to the relationship of mathematics to other learning areas.</p>	<p>CEOW</p> <p>DECSYD Survey</p> <p>CEOL Submission 2 Submission 3</p>	<p>The draft rationale received strong support in consultation. It incorporates a significant amount of the <i>Australian curriculum: Mathematics</i> rationale, as it relates to the purpose of the rationale for Mathematics in the NSW K–10 curriculum.</p> <p>The relevance of ICT to the Mathematics curriculum is addressed through ‘digital technologies facilitate this expansion of ideas, providing access to new tools for continuing mathematical exploration and invention’.</p> <p>The draft rationale will be amended to incorporate reference to the relationship of mathematics to other learning areas.</p>

Key matters	Sources	Proposed actions
Recognition of students with special education needs is not evident.	CEOL Submission 3	The rationale describes the distinctive nature of the subject and outlines its relationship to the contemporary world and current practice. It explains the place and purpose of the subject in the curriculum. The needs of the full range of students are recognised through other elements of the syllabus.

5.2 The place of the *Mathematics K–10 Syllabus* in the K–12 curriculum

Summary

In general, this section of the draft syllabus was received positively by respondents. However, some feedback indicated that the diagram representing available pathways of learning in Mathematics from Early Stage 1 to Stage 6 needs to be more ‘user-friendly’ in structure and layout. Teachers also indicated that the diagram in its current form implies that the usual pathway from Stage 5.2 is into the Mathematics (2 Unit) course.

Feedback affirming the place of the *Mathematics K–10 Syllabus* in the K–12 curriculum

Feedback	Sources
The diagram is a good representation of the place of the <i>Mathematics K–10 Syllabus</i> in the K–12 Mathematics curriculum.	CEOWF Consultation meeting (1)

Key matters raised and proposed actions

Key matters	Sources	Proposed actions
<p>Suggested additions/changes</p> <p>The diagram representing available pathways of learning in Mathematics from Early Stage 1 to Stage 6:</p> <ul style="list-style-type: none"> needs to be more ‘user-friendly’ in structure and layout implies that the usual pathway from Stage 5.2 is into the Mathematics (2 Unit) course. 	<p>DECSYD</p> <p>Consultation meeting (1)</p>	<p>The structure and layout of the diagram will be revised to represent more clearly the available pathways of learning in Mathematics from Early Stage 1 to Stage 6. The revision of the diagram will include improvement of the way in which the available pathways of learning from Stage 5 to Stage 6 are demonstrated.</p>

5.3 Aim

Summary

There was strong agreement from Primary (94%) and Secondary (92%) survey respondents that the draft aim provides a statement of the overall purpose of the syllabus. Feedback from teacher consultation indicated support for the draft aim, with comments that it links mathematics to the real world.

Other feedback indicated that the aim should include all elements of the aims of the Australian curriculum and should make greater reference to lifelong learning and different learning styles and needs.

Feedback affirming the aim

Feedback	Sources
The aim is succinct.	DECSYD CEOWF
The aim has a creative focus and outlines the links mathematics has to real-life applications.	Consultation meeting (1)
The aim recognises the connections between mathematics and other disciplines and the benefits these connections provide for students.	CEOL Survey Submission 3
The aim includes student perspectives.	DECSYD

Key matters raised and proposed actions

Key matters	Sources	Proposed actions
Suggested additions/changes		
The NSW <i>Mathematics K–10 Draft Syllabus</i> aim includes only two of the three aims of the <i>Australian curriculum: Mathematics</i> . The other aim should be included as it relates to the <i>Australian curriculum: Mathematics</i> proficiency strands.	CEOW	The draft aim will be amended to also include the second of the three <i>Australian curriculum: Mathematics</i> aims.
The aim of the NSW <i>Mathematics K–10 Draft Syllabus</i> refers to ‘communicators of mathematics’, but ‘communicating’ is not one of the Working Mathematically processes in the <i>Mathematics K–10 Draft Syllabus</i> .	Survey	The process of ‘communicating’ is represented in the first objective of the <i>Mathematics K–10 Draft Syllabus</i> . Each stage has a Working Mathematically outcome concerned with ‘representation and communication’.
The aim in the <i>Mathematics K–10 Draft Syllabus</i> does not refer to ‘lifelong learning’ as in the current NSW <i>Mathematics 7–10 Syllabus</i> .	Survey	The draft aim will be amended to include that mathematics is ‘an important aspect of lifelong learning’.

Key matters	Sources	Proposed actions
Different learning styles and needs are not referred to in the <i>Mathematics K–10 Draft Syllabus</i> aim.	Submission 3	The purpose of the aim is to provide a succinct statement of the overall purpose of the syllabus and to indicate the general educational benefits for students from programs based on the syllabus.

5.4 Objectives

Summary

There was strong agreement from Primary (96%) and Secondary (91%) survey respondents that the draft objectives define in broad terms the knowledge, understanding, skills, and values and attitudes to be developed through the study of mathematics.

Feedback from teacher consultation meetings indicated support for the values and attitude objectives. Other feedback indicated that the objectives do not refer to inquiry-based learning or information and communication technology.

Feedback affirming the objectives

Feedback	Sources
The values and attitudes expressed in the draft objectives pervade the syllabus. They are positive, challenging and relevant.	Consultation meeting (1)
The draft objectives are broad enough to describe the three content strands of the syllabus.	Survey
The use of the term ‘perseverance’ in the draft values and attitudes objectives is welcomed.	CEOW
The draft objectives are easy to view and understand.	Survey

Key matters raised and proposed actions

Key matters	Sources	Proposed actions
The four ‘knowledge, understanding and skills’ objectives should be labelled ‘Working Mathematically’, ‘Number and Algebra’, ‘Measurement and Geometry’, and ‘Statistics and Probability’, respectively, for the assistance of teachers.	DECSYD Survey	The ‘knowledge, understanding and skills’ objectives will be labelled as suggested in the final syllabus.
The draft objectives do not refer to inquiry-based learning or information and communication technology (ICT).	DECSYD	The objectives provide broad statements of syllabus intent. Elements such as inquiry-based learning and ICT are encompassed in these broad statements and in the content of the syllabus.

5.5 Outcomes

Summary

The majority of Primary (74%) and Secondary (81%) survey respondents agreed that the draft outcomes provide clear statements of the intended results of teaching Mathematics in each stage. There was also general agreement from both Primary (65%) and Secondary (76%) survey respondents that the draft **outcomes provide a basis for measuring and reporting student achievement**. Many Secondary teachers supported the reduction in the number of outcomes believing the new structure will simplify reporting.

However, a significant number of Primary teachers and other stakeholders, including the BCC, expressed concern that the new structure of outcomes lacks sufficient clarity, increases the learning expectation and is inadequate for the purpose of assessment and reporting.

Feedback affirming the outcomes

Feedback	Sources
The language of the outcomes is appropriate.	Submission 2 Consultation meeting (4) Survey
The prominence of the Working Mathematically outcomes is strongly supported. Feedback indicated that this is likely to result in Working Mathematically being integrated more readily into teaching and learning than currently.	DECSYD CEOW Submission 14 Consultation meeting (4) Survey
The new structure of the outcomes is supported by many Secondary teachers as it has resulted in fewer outcomes and the possibility of more cross-strand learning and assessment opportunities than in the current NSW <i>Mathematics K–10 Syllabus</i> .	CEOW Submission 14 Consultation meeting (5) Survey
The new structure of the outcomes will simplify reporting.	Consultation meeting (5) Survey

Key matters raised and proposed actions

Key matters	Sources	Proposed actions
<p>Breadth of the outcomes</p> <p>The breadth of the draft outcomes means that they lack sufficient clarity for the development of a common understanding by teachers.</p> <p>The breadth of the draft outcomes means that they lack sufficient specificity for assessment and reporting purposes.</p> <p>The grouping of a number of current <i>Mathematics K–10 Draft Syllabus</i> outcomes into broader outcomes has increased the learning expected and means that some students may never achieve particular outcomes.</p>	<p>DEC DECSYD BCC CEOW MANSW Stakeholder PPA CCTPN Submission 1 Submission 2 Submission 8 Consultation meeting (5) Survey</p> <p>DEC DECSYD CEOW BCC Stakeholder MANSW PPA IEU Submission 2 Consultation meeting (5) Survey</p> <p>DECSYD CEOW BCC Stakeholder Consultation meeting (1) Survey</p>	<p>Significant work needs to be undertaken to review the current outcomes, and include additional outcomes where appropriate, in order to increase the clarity of the draft outcomes.</p> <p>Significant work needs to be undertaken to review the current outcomes, and include additional outcomes where appropriate, in order to increase the specificity of the draft outcomes.</p> <p>Significant work needs to be undertaken to review the current outcomes, and include additional outcomes where appropriate, in order to ensure appropriate learning expectations for the range of students.</p>
<p>Representation of the Outcomes</p> <p>The three Working Mathematically outcomes in each stage of the NSW <i>Mathematics K–10 Draft Syllabus</i> do not align with the four proficiency strands of the <i>Australian curriculum: Mathematics</i> (Understanding, Fluency, Problem Solving, Reasoning).</p>	<p>CEOW Consultation meeting (1)</p>	<p>A statement clarifying the relationship between the Working Mathematically outcomes of the NSW syllabus and the four <i>Australian curriculum: Mathematics</i> proficiency strands will be included in the final syllabus.</p>

Key matters	Sources	Proposed actions
The outcomes need to be coded to indicate the associated syllabus strand (Working Mathematically, Number and Algebra, Measurement and Geometry, Statistics and Probability) and to make clear how the outcomes align from stage to stage.	DECSYD CEOSYD CEOWF CEOW Submission 2 Submission 3 Consultation meeting (8) Survey	The outcomes will be coded with reference to the relevant stage and strand. A consistent approach will be used across Phase 1 syllabuses.

5.6 Content

Summary

Overall there was endorsement of the content of the *Mathematics K–10 Draft Syllabus*. Feedback from teacher consultation meetings, written submissions and survey respondents indicated that the content is appropriately structured and makes clear what students should learn in Mathematics. A high proportion of Primary (80%) and Secondary (81%) survey respondents agreed that there is a clear relationship between the objectives, outcomes and content.

Many Primary (81%) and Secondary (77%) survey respondents agreed that the sequence of content is appropriate to the students' stage of development. However, a significant number of survey respondents were of the view that further work needs to be undertaken in relation to the sequencing of the content. While 66% of Primary and 65% of Secondary survey respondents agreed that the syllabus caters for the needs of all students, many survey respondents expressed concern that the syllabus is not accessible to some students, particularly students with higher support needs.

The majority of Primary (81%) and Secondary (75%) survey respondents agreed that there is appropriate emphasis on cross-curriculum areas. However, a significant number of survey respondents were of the view that the cross-curriculum areas are not emphasised appropriately. Many Primary (74%) and Secondary (68%) respondents agreed that the cross-curriculum areas are represented in authentic ways. However, a substantial number of respondents disagreed, indicating that further work needs to be done to ensure that the cross-curriculum areas are represented appropriately in the syllabus.

Primary respondents (84%) strongly agreed that existing resources can be used to teach the content while Secondary respondents (74%) supported this statement.

Teacher meeting feedback and written submissions supported the high level of detail in the content and the retention and improvement of the background information and language in the draft syllabuses. They indicated this would provide clear direction for inexperienced Mathematics teachers and teachers from outside the subject area.

There was comment that the amount of content in some stages may not provide sufficient time for appropriate depth in learning to be achieved by some students. Feedback indicated that teachers will require support to implement new syllabus content.

Feedback affirming the content

Feedback	Sources
<p>The content in the <i>Mathematics K–10 Draft Syllabus</i> is similar to the content in the current K–10 Mathematics syllabuses and is supported.</p>	<p>CEOL Submission 13 Consultation meeting (3) Survey</p>
<p>The inclusion of the <i>Australian curriculum: Mathematics</i> content descriptions in the <i>Mathematics K–10 Draft Syllabus</i> was viewed positively.</p>	<p>DECSYD CEOSYD MANSW Submission 11 Consultation meeting (2) Survey</p>
<p>There was strong support for the merging of Knowledge and Skills content and Working Mathematically content into one column (ie the merging of the two column format of the current Mathematics K–10 syllabuses).</p>	<p>DEC DECSYD CEOBB CEOWF MANSW Submission 2 Submission 3 Submission 8 Submission 14 Consultation meeting (9) Survey</p>
<p>The level of detail in the content is supported, particularly as it provides clear direction for less-experienced Mathematics teachers and for teachers teaching outside their subject area.</p>	<p>CEOBB CEOSYD CEOW MANSW Submission 1 Submission 2 Submission 13 Submission 14 Consultation meeting (5) Survey</p>
<p>The page layout is clear and ‘user-friendly’.</p>	<p>CEOSYD Submission 2 Submission 13 Consultation meeting (8) Survey</p>
<p>Feedback indicated strong support for the arrangement of the content in stages rather than in years.</p>	<p>DEC MANSW Consultation meeting (3) Survey</p>
<p>Secondary Mathematics teachers strongly supported the division of Stage 5 into Stages 5.1, 5.2 and 5.3.</p>	<p>DEC Consultation meeting (3) Survey</p>

Feedback	Sources
<p>The strand/substrand diagram at the beginning of the content section of the <i>Mathematics K–10 Draft Syllabus</i> was viewed positively as it provides a clear overview of the relationship between strands and substrands, and Primary and Secondary syllabus content.</p>	<p>CEOBB CEOSYD CEOWF Submission 13 Consultation meeting (7) Survey</p>
<p>The manner in which the cross-curriculum areas are integrated into the content of the <i>Mathematics K–10 Draft Syllabus</i> is supported.</p>	<p>DEC DECSYD CEOWF Submission 1 Submission 13 Submission 14 Consultation meeting (5) Survey</p>
<p>The retention and improvement of the Background Information and Language sections in the <i>Mathematics K–10 Draft Syllabus</i> is strongly supported.</p>	<p>DEC DECSYD CEOBB CEOSYD CEOWF CEOW BCC MANSW PPA Submission 10 Consultation meeting (8) Survey</p>

Key matters raised and proposed actions

Key matters	Sources	Proposed actions
<p>Representation of the Australian curriculum: Mathematics</p> <p>Explicit identification of <i>Australian curriculum: Mathematics</i> content descriptions/strands/substrands should not be included in the final syllabus.</p> <p>The codes used in the <i>Australian curriculum: Mathematics</i>, eg ACMNA126, should be stated next to each content description in the NSW draft syllabus to facilitate cross-referencing to the <i>Australian curriculum: Mathematics</i>.</p>	<p>DEC</p> <p>MANSW Submission 9 Submission 7 Consultation meeting (2)</p>	<p>The representation of the <i>Australian curriculum: Mathematics</i> content descriptions will be reconsidered in light of consultation feedback from all learning areas.</p> <p>The <i>Australian curriculum: Mathematics</i> content description codes will be incorporated in the final syllabus.</p>

Key matters	Sources	Proposed actions
<p>There are differences between some of the terminology used in the <i>Mathematics K–10 Draft Syllabus</i> and the <i>Australian curriculum: Mathematics</i> and the NSW syllabus, eg ‘Working Mathematically’ rather than ‘Proficiency Strands’</p>	<p>CEOBB CEOWF CEOW MANSW</p>	<p>Particular terminology has been adopted for the draft NSW syllabus for consistency across all learning areas. Other differences in terminology will be reviewed in the further development of the NSW syllabus materials.</p>
<p>The substrands of the <i>Australian curriculum: Mathematics</i> should be used in the <i>Mathematics K–10 Draft Syllabus</i>.</p>	<p>CEOBB</p>	<p>The substrands of the NSW <i>Mathematics K–10 Draft Syllabus</i> were developed to ensure that they were of sufficient specificity to meet the needs of NSW teachers and students.</p>
<p>Not all of the <i>Australian curriculum: Mathematics</i> content descriptions will be covered by students progressing only to the end of Stage 5.1.</p>	<p>Survey</p>	<p>The NSW <i>Mathematics K–10 Draft Syllabus</i> does not limit the extent to which any student can cover the content written for Stage 5. Teachers should, wherever appropriate, provide opportunities to study Stage 5 content beyond that written for the Stage 5.1 pathway.</p>
<p>Content in relation to Pythagoras’ theorem is in Year 9 in the <i>Australian curriculum: Mathematics</i> (Stage 5) but is addressed earlier in the <i>Mathematics K–10 Draft Syllabus</i>.</p>	<p>DECSYD CEOW</p>	<p>A small number of content areas have been included in the <i>Mathematics K–10 Draft Syllabus</i> in the stage prior to that indicated in the <i>Australian curriculum: Mathematics</i> to assist in sequencing and balancing the content to be addressed across the stages. Introductory work in relation to Pythagoras’ theorem is one example.</p>
<p>Content in the <i>Mathematics K–10 Draft Syllabus</i> does not always align directly with the <i>Australian curriculum: Mathematics</i> content descriptions within a substrand of the draft syllabus.</p>	<p>DECSYD CEOW</p>	<p>The content will be reviewed for alignment with the <i>Australian curriculum: Mathematics</i> content descriptions in the further development of the syllabus, while ensuring that the syllabus content provides for the maintenance of standards in K–10 Mathematics in NSW.</p>

Key matters	Sources	Proposed actions
<p>Quality and quantity of content</p> <p>In general, there is too much content prescribed, particularly for Stages 2, 3 and 5 (particularly Stage 5.3) in the <i>Mathematics K–10 Draft Syllabus</i> for there to be sufficient time for deeper learning.</p> <p>The content of the current NSW K–10 syllabuses has been superimposed onto the <i>Australian curriculum: Mathematics</i> content descriptions, thereby missing the opportunity to create a 21st century curriculum.</p> <p>The Background Information and Language sections of the <i>Mathematics K–10 Draft Syllabus</i> need to be reviewed for consistency and expanded where possible to include more of the metalanguage of mathematics and to address further the particular literacy needs of Aboriginal and Torres Strait Islander students or students for whom English is an additional language or dialect.</p> <p>The final NSW K–10 syllabus needs to contain advice about various teaching strategies, including inquiry-based learning.</p>	<p>DEC DECSYD CEOBB CEOL CEOSYD CEOWF CEOW BCC MANSW NSWTF IEU Stakeholder Submission 2 Submission 3 Submission 12 Submission 14 Consultation meeting (7) Survey</p> <p>CEOW Submission 12 Survey</p> <p>BCC MANSW DEC DECSYD CEOSYD CEOW Submission 10 Consultation meeting (5) Survey</p> <p>DECSYD PPA CEOL Submission 3</p>	<p>The content of the <i>Mathematics K–10 Draft Syllabus</i>, particularly for Stages 2, 3 and 5, will be reviewed with a view to reducing the amount of content, where possible and appropriate.</p> <p>Relevant NSW curriculum content has been incorporated into the NSW draft syllabus, where appropriate, to explicate the <i>Australian curriculum: Mathematics</i> content descriptions. Recent mathematics education research will be used to inform the development of syllabus support materials.</p> <p>The consistency and breadth of the Background Information and Language sections will be addressed where appropriate in the further development of the syllabus.</p> <p>Syllabus support materials will include sample units of work. These samples will include a range of advice in relation to teaching and learning.</p>

Key matters	Sources	Proposed actions
<p>Use of digital technology</p> <p>The statement on the use of calculators in Section 7.1 is unnecessary and should be removed.</p> <p>In relation to information and communication technology (ICT):</p> <ul style="list-style-type: none"> more information needs to be included in the syllabus content about the use of ICT, with a view to providing clear explanations of the technology/non-technology strategies to be used at each stage of learning references to the use of ICT need to be more specific and greater in number. 	<p>BCC</p> <p>CEOWF MANSW NSWTF</p> <p>DECSYD Submission 8 Consultation meeting (1)</p>	<p>The inclusion and nature/extent of the statement about the use of calculators will be reviewed in the further development of the syllabus.</p> <p>The inclusion of further information about the use of ICT will be considered in the further development of the syllabus and support materials, with a view to clarifying expectations in relation to the use of ICT to support the teaching and learning of mathematics.</p>
<p>Specific matters in relation to content</p> <p>Content in the <i>Mathematics K–10 Draft Syllabus</i> related to money from Early Stage 1 to Stage 3 should be written in the syllabus as a separate substrand.</p> <p>Some content related to money (coins and notes – recognition, terminology) should be included in the final syllabus in Early Stage 1.</p> <p>The inclusion of content relating to order of operations and all four quadrants of the Cartesian plane in Stage 3 is not appropriate for the typical student at this level.</p> <p>Specific techniques for problem solving are not sufficiently explicit in the <i>Mathematics K–10 Draft Syllabus</i> for Early Stage 1 to Stage 3.</p>	<p>CEOW CCTPN Consultation meeting (1)</p> <p>DECSYD Consultation meeting (1)</p> <p>DEC DECSYD CEOW Consultation meeting (2) Survey</p> <p>DECSYD PPA Consultation meeting (2)</p>	<p>This was considered in the development of the <i>Mathematics K–10 Draft Syllabus</i>. It was decided that content related to money should be integrated into the existing substrands of Number and Algebra to provide more frequent opportunities to reinforce money concepts.</p> <p>Content related to money will be included in Early Stage 1 in the final syllabus.</p> <p>The <i>Australian curriculum: Mathematics</i> prescribes the content in relation to order of operations and the Cartesian plane in Stage 3. Syllabus support material in relation to this content will be developed.</p> <p>The explicitness of techniques for problem solving across the syllabus will be reconsidered in the further development of the syllabus support materials.</p>

Key matters	Sources	Proposed actions
<p>The explicitness/appropriateness of the stages at which the formal recording of mathematical calculations, as well as formal algorithms for addition, subtraction, multiplication and division are introduced needs further consideration.</p>	<p>AASE BCC Stakeholder Submission 2 Submission 5 Submission 12 Consultation meeting (2) Survey</p>	<p>The stage/s in which these aspects of the curriculum are introduced will be reconsidered in the further development of the syllabus, with a view to including further clarification of syllabus expectations in relation to the teaching and learning of formal algorithms.</p>
<p>Some mathematics terminology/language and the corresponding mathematical symbols (eg =, +) should be introduced earlier, including at Early Stage 1.</p>	<p>DECSYD AASE</p>	<p>The timing of the introduction of particular mathematics terminology and symbols will be reconsidered in the further development of the syllabus, including through reference to appropriate research in relation to the introduction of mathematical symbols.</p>
<p>Content related to the development of the concept of place value needs to be more explicit in Early Stage 1 to Stage 2, and to be added to Stage 3.</p>	<p>CEOSYD Consultation meeting (3) Survey</p>	<p>The content related to place value across Early Stage 1 to Stage 3 will be reconsidered in the further development of the syllabus.</p>
<p>There is content in Early Stage 1 of the <i>Mathematics K–10 Draft Syllabus</i> that is not in the ‘Foundation’ Year of the <i>Australian curriculum: Mathematics</i> and should be left until Stage 1 of the final syllabus, eg content related to multiplication and division and to fractions.</p>	<p>CEOW Submission 9 Consultation meeting (1)</p>	<p>The great majority of consultation feedback indicates that, essentially, the content currently prescribed for Early Stage 1 is appropriate.</p>
<p>The inclusion of eighths in the content related to fractions in Stage 1 is too demanding for the typical student’s stage of development.</p>	<p>CEOW PPA Consultation meeting (1)</p>	<p>The <i>Australian curriculum: Mathematics</i> prescribes the inclusion of eighths in the content related to fractions in Year 2, ie Stage 1 in NSW.</p>
<p>There is an increase in the amount and the expectation level of the content related to fractions and decimals in Stage 3 of the <i>Mathematics K–10 Draft Syllabus</i>.</p>	<p>CEOBB CEOW</p>	<p>The <i>Australian curriculum: Mathematics</i> prescribes the amount and the expectation level of relevant content in Years 5 and 6, ie Stage 3 in NSW.</p>
<p>Typical Stage 2 students are not developmentally ready to work with numbers of any size. They should only be expected to deal with whole numbers up to 10 000.</p>	<p>DEC Consultation meeting (1) Survey</p>	<p>The content of the Whole Number substrand in Stage 2 will be reviewed in the further development of the syllabus materials.</p>

Key matters	Sources	Proposed actions
<p>The use of data sets in syllabus content related to Statistics is misleading. The use of large count data sets should be emphasised.</p>	<p>Survey</p>	<p>The use of small and large data sets in relation to Statistics syllabus content will be reviewed in the further development of the syllabus, including in relation to additional teaching and learning opportunities available through the use of ICT.</p>
<p>The content for Early Stage 1 to Stage 3 lacks ideas for the stimulation of higher-order thinking.</p>	<p>DECSYD CEOSYD</p>	<p>Opportunities embedded in the content across Early Stage 1 to Stage 3 for students to engage in higher-order thinking will be reviewed in the further development of the syllabus support materials.</p>
<p>There is no content related to similarity in Stage 4 of the <i>Mathematics K–10 Draft Syllabus</i>.</p>	<p>BCC Survey</p>	<p>The <i>Australian curriculum: Mathematics</i> does not prescribe any content related to similarity for Years 7 and 8, ie Stage 4 in NSW. For alignment with the <i>Australian Curriculum: Mathematics</i>, content related to similarity has not been included in Stage 4 of the NSW <i>Mathematics K–10 Draft Syllabus</i>.</p>
<p>The expansion of binomial products should not be included in the algebra content for Stage 5.2 in the <i>Mathematics K–10 Draft Syllabus</i>.</p>	<p>Consultation meeting (1)</p>	<p>The <i>Australian curriculum: Mathematics</i> prescribes the expansion of binomial products in content to Year 10 level, all of which is to be covered by students studying Mathematics to Stage 5.2 level in NSW.</p>
<p>Specific matters raised in relation to the content for Years 7–10 were:</p> <ul style="list-style-type: none"> • more detail needs to be provided in relation to some <i>Australian curriculum: Mathematics</i> content descriptions in the Statistics and Probability strand, eg ‘explore the practicalities and implications of obtaining representative data using a variety of investigative processes’ • the calculation of perimeters and areas of sectors in Stage 4 of the <i>Mathematics K–10 Draft Syllabus</i> is beyond what is currently expected of Stage 4 students and 	<p>DECSYD Consultation meeting (1)</p> <p>CEOSYD</p>	<p>The relevant content for each of the matters raised will be reviewed in the further development of the syllabus.</p>

Key matters	Sources	Proposed actions
<p>does not align with the <i>Australian curriculum: Mathematics</i></p> <ul style="list-style-type: none"> • the classification of quadrilaterals on the basis of their properties is too demanding for typical Stage 4 students • the examples related to the content on transformations in the Cartesian plane in Stage 4 of the <i>Mathematics K–10 Draft Syllabus</i> are not demanding enough • the area of a trapezium should be included in Stage 4 of the NSW curriculum, so that it can be addressed at the same time as the areas of other quadrilaterals • the content related to sketching simple non-linear graphs in Stage 5.1 is too difficult for students studying the 5.1 pathway • the algebra content in Stage 5.2 of the <i>Mathematics K–10 Draft Syllabus</i> is not of a sufficiently challenging level • the examples related to conditional statements in Probability need to be probability related • the NSW syllabus should mandate that students be shown derivations of formulae for surface area and volume in Stage 5. 	<p>Survey</p> <p>Survey</p> <p>Survey</p> <p>Consultation meeting (1) Survey</p> <p>Submission 4</p> <p>BCC Survey</p> <p>Consultation meeting (1)</p>	
<p>Organisation of content</p> <p>The new NSW K–10 syllabuses should be consistent in structure.</p> <p>Some feedback indicated that a hard copy version of the final NSW <i>Mathematics K–10 Syllabus</i> to be organised in a stage-by-stage format would be preferred. Additionally, the majority indicated a preference for the strand/substrand organisation of the current NSW Mathematics K–10 syllabuses.</p>	<p>DEC CEOSYD CEOW Submission 11 Consultation meeting (3)</p> <p>DECSYD CEOW BCC NSWTF Submission 2 Submission 7 Submission 8 Consultation meeting (4) Survey</p>	<p>Work is being undertaken in the further development of the four Phase 1 syllabuses to achieve an appropriate level of consistency in the structure of new NSW K–10 syllabuses.</p> <p>The organisation of the <i>Mathematics K–10 Syllabus</i> content for both the electronic and hard copy versions will be reconsidered in the further development of the syllabus materials.</p>

Key matters	Sources	Proposed actions
<p>The key ideas within a syllabus topic should be provided on the same page/s to provide an overview of the content of the topic.</p> <p>Further information is needed for the assistance of teachers in relation to the following syllabus elements:</p> <ul style="list-style-type: none"> strand overviews to assist in clarifying the breadth and depth of learning expected in relation to each of the syllabus strands further explanation of the purpose of the ‘Unit 1/Unit 2’ structure used in Stage 1 to Stage 3. <p>The content detailed in Unit 1/Unit 2 of a substrand from Early Stage 1 to Stage 3 is not sequential across the units in each case.</p> <p>Some feedback indicated that the new NSW Mathematics K–10 syllabus should be written in years rather than two-year stages.</p> <p>There needs to be more examples of real-life applications of mathematics in the final Mathematics K–6 syllabus.</p> <p>Statements of the rationales for the inclusion of each of the substrands in the <i>Mathematics K–10 Syllabus</i> should be provided with each of the substrands.</p>	<p>MANSW</p> <p>DEC CEOW BCC Survey</p> <p>DECSYD CEOSYD CEOW Stakeholder Submission 3 Consultation meeting (1) Survey</p> <p>DECSYD</p> <p>CCTPN Survey</p> <p>DECSYD CEOL Submission 3</p> <p>BCC Survey</p>	<p>A K–10 continuum of ‘Key Ideas’ will be developed and made available in the finalisation of the syllabus support materials.</p> <p>The development and provision of further information in relation to syllabus elements will be considered in the further development of the syllabus.</p> <p>The sequencing of content across the NSW Mathematics K–10 syllabus will be reviewed in the further development of the syllabus.</p> <p>There is strong support for the stage-by-stage model consistent with the current NSW curriculum.</p> <p>The inclusion of further examples of real-life applications of mathematics across Early Stage 1 to Stage 5 will be considered in the further development of the syllabus materials.</p> <p>Rationale statements for the inclusion of each of the syllabus substrands will be provided in the final syllabus.</p>
<p>Layout</p> <p>Specific matters raised in relation to the incorporation of the syllabus elements in the syllabus document were:</p> <ul style="list-style-type: none"> the representation of ‘knowledge and skills’ and ‘Working Mathematically’ via the use of dot and dash points needs to be 	<p>DECSYD CEOBB CEOSYD CEOW</p>	<p>The incorporation of the various syllabus elements will be reviewed in the further development of the syllabus.</p>

Key matters	Sources	Proposed actions
<p>reconsidered in terms of readability</p> <ul style="list-style-type: none"> • colour coding should be considered to distinguish the Working Mathematically dash points within the content and to distinguish each of the syllabus strands • the current approach taken in the <i>Mathematics K–10 Draft Syllabus</i> to the tagging of the cross-curriculum areas has resulted in significant cluttering of the content pages • the Background Information and Language sections should be placed on the page above the content of each substrand and/or be more easily distinguished from the content • the Background Information and Language sections should be printed with all substrands where the information applies (instead of using ‘refer to the Background Information in ...’) <p>A detailed index should be provided in the final syllabus.</p>	<p>Consultation meeting (3) Survey</p> <p>Consultation Meeting (2) Survey</p> <p>DECSYD CEOW Consultation meeting (3) Survey Submission 11 Submission 7</p> <p>CEOBB Consultation meeting (5) Survey</p> <p>Consultation meeting (2) Submission 1 Survey</p> <p>Consultation meeting (1)</p>	<p>Searches in relation to key words will be able to be conducted using the electronic version of the final syllabus.</p>
<p>Section 7.1: Organisation of content</p> <p>Information about the organisation of the syllabus should be contained in its own section, rather than within the content section itself.</p> <p>It is not stated within the <i>Mathematics K–10 Draft Syllabus</i> that students studying only to the end of Stage 5.1 will thereby not study all of the <i>Australian curriculum: Mathematics</i> content descriptions for Years 9 and 10.</p> <p>Clarification is needed in the final syllabus regarding minimum expectation for students in terms of content coverage by the end of Year 10.</p>	<p>Consultation meeting (1)</p> <p>Stakeholder</p> <p>Stakeholder</p>	<p>The placement and arrangement of syllabus elements will be reviewed and a consistent approach adopted across the Phase 1 syllabuses.</p> <p>A statement will be included in the final syllabus describing the incorporation of <i>Australian curriculum: Mathematics</i> content descriptions covered in Stages 5.1, 5.2 and 5.3.</p> <p>A statement regarding minimum expectation for students in terms of content coverage by the end of Year 10 will be included in the final syllabus.</p>

Key matters	Sources	Proposed actions
<p>Clarification of the nature of the pathways for Stage 5 is needed, including a statement that students studying Stage 5.3 content are required to study the content of Stage 5.1 and Stage 5.2 as well.</p>	<p>Survey</p>	<p>The statement regarding pathways of learning for Stage 5 will be reviewed for the final syllabus.</p>
<p>The descriptions of the four Working Mathematically processes in the <i>Mathematics K–10 Draft Syllabus</i> need further development, particularly in the case of Reasoning.</p>	<p>BCC Consultation meeting (1) Survey</p>	<p>The descriptions of the four Working Mathematically processes in the <i>Mathematics K–10 Draft Syllabus</i> have been provided as written in the <i>Australian curriculum: Mathematics</i>. These descriptions will be reviewed in the further development of the syllabus.</p>
<p>Clarification is needed in the final syllabus regarding the relationship between the key components of the syllabus content: the <i>Australian curriculum: Mathematics</i> content descriptions and the content of the NSW <i>Mathematics K–10 Draft Syllabus</i>.</p>	<p>DECSYD CEOSYD Stakeholder SE Consultation meeting (2)</p>	<p>The statement regarding the relationship between the <i>Australian curriculum: Mathematics</i> content descriptions and the content of the NSW <i>Mathematics K–10 Draft Syllabus</i> will be reviewed in the further development of the syllabus.</p>
<p>The status of all aspects of the syllabus content needs to be clarified as it is currently not clear which parts are mandatory, eg is the content following the additional NSW content descriptions mandatory? Are all dot and dash points mandatory?</p>	<p>DEC CEOSYD Stakeholder SE Consultation meeting (2)</p>	<p>The statement regarding ‘essential content’ in the <i>Mathematics K–10 Draft Syllabus</i> will be reviewed in the further development of the four Phase 1 K–10 syllabuses.</p>
<p>The ‘Mathematics Content Guide’ explaining each component of the page layout should be included in Section 7.1 of the final syllabus.</p>	<p>Consultation meeting (1) Survey</p>	<p>The ‘Mathematics Content Guide’ will be included in the electronic and hard copy materials made available in relation to the final syllabus.</p>
<p>Time allocation for the study of mathematics in K–10 needs to be clarified.</p>	<p>CEOSYD Survey</p>	<p>The <i>Mathematics K–10 Draft Syllabus</i> has been written to be taught within the current time allocations.</p>
<p>The strand/substrand diagram could be misinterpreted in relation to the place of Working Mathematically in the syllabus and the amount of teaching time to be allocated to each of the strands.</p>	<p>MANSW Survey</p>	<p>There is strong support for maintaining the strand/substrand diagram in its current form.</p>

Key matters	Sources	Proposed actions
<p>A strand/substrand diagram should be developed in relation to the Years 7–10 Life Skills content.</p>	<p>Consultation meeting (1)</p>	<p>The provision of a similar strand/substrand diagram will be considered in the further development of the syllabus materials.</p>
<p>‘Additional Content’</p> <p>The term ‘Additional Content’ for extension areas should be reconsidered in order to avoid any confusion in relation to what constitutes mandatory content in the final syllabus.</p> <p>Further topic areas, together with greater detail, should be provided in relation to the ‘Additional Content’ in the <i>Mathematics K–10 Draft Syllabus</i>, including ideas for investigations.</p> <p>For the final syllabus, the ‘Additional Content’ in the <i>Mathematics K–10 Draft Syllabus</i> should be arranged stage-by-stage and located at the back of the document or in the syllabus support materials.</p>	<p>Survey</p> <p>CEOL Submission 3</p> <p>Consultation meeting (1) Survey</p>	<p>The naming of ‘Additional Content’ in the <i>Mathematics K–10 Draft Syllabus</i> will be reviewed in the further development of the syllabus materials.</p> <p>The provision of further topic areas and greater detail in relation to the ‘Additional Content’ will be considered in the further development of the syllabus materials.</p> <p>The arrangement and location of the ‘Additional Content’ will be reviewed in the further development of the syllabus materials.</p>
<p>Cross-curriculum areas</p> <p>The single heading of ‘Cross-curriculum areas’ should not be used to incorporate the <i>Australian curriculum: Mathematics</i> ‘General Capabilities’ and ‘Cross-curriculum Priorities’ in the NSW syllabus as they represent two distinct types of learning.</p> <p>The statements describing the cross-curriculum areas within the <i>Mathematics K–10 Draft Syllabus</i> should be reviewed with a view to ensuring that they reflect their value in the teaching and learning of mathematics in appropriate problem contexts.</p> <p>Cross-curriculum areas such as ‘Aboriginal and Torres Strait Islander history and perspectives’, ‘Asia and Australia’s engagement with Asia’ and ‘Sustainability’ have not been authentically represented in the content of the <i>Mathematics K–10 Draft Syllabus</i>.</p>	<p>DEC CEOSYD</p> <p>DEC</p> <p>NSWTF Survey</p>	<p>The term ‘cross-curriculum areas’ is used consistently across the four Phase 1 K–10 syllabuses.</p> <p>The statements outlining the cross-curriculum areas in the <i>Mathematics K–10 Draft Syllabus</i> will be reviewed in the further development of the syllabus.</p> <p>Writers will be engaged to work further on the representation of the cross-curriculum areas in the further development of the syllabus.</p>

Key matters	Sources	Proposed actions
<p>Each of the cross-curriculum areas needs to be reviewed for authenticity and appropriate emphasis.</p> <p>Specific matters raised in relation to the tagging of the cross-curriculum areas in the <i>Mathematics K–10 Draft Syllabus</i> were:</p> <ul style="list-style-type: none"> • the extent of the tagging of Numeracy in the Mathematics syllabus is likely to result in a lesser view of its importance • there are currently too many tags, particularly in relation to some cross-curriculum areas, cluttering the document • the tagging of Literacy appears to be arbitrary and is not useful <p>Further references to the history of mathematics should be made in the content in order to provide greater opportunity to address the cross-curriculum areas in context.</p> <p>The descriptions of cross-curriculum areas Ethical Understanding, Intercultural Understanding, and Work and Enterprise in the <i>Mathematics K–10 Draft Syllabus</i> are not of sufficient breadth.</p> <p>Explanation of the cross-curriculum codes used throughout the content is difficult to locate in the <i>Mathematics K–10 Draft Syllabus</i>.</p> <p>Further information/support is needed regarding implementation of the cross-curriculum areas in the classroom.</p>	<p>DECSYD CEOWF CEOW Submission 7</p> <p>CEOSYD Consultation meeting (2) Survey Submission 11</p> <p>DETSYD CEOW Consultation (2) Survey</p> <p>BCC</p> <p>DEC</p> <p>Survey</p> <p>DECSYD Consultation meeting (1) Survey</p> <p>DECSYD CEOSYD Survey</p>	<p>Writers will be engaged to work further on the authenticity and appropriateness of the cross-curriculum areas in the finalisation of the syllabus.</p> <p>All aspects of the current tagging of the cross-curriculum areas will be reviewed in the further development of the syllabus.</p> <p>The current level of referencing of the history of mathematics will be reviewed in the further development of syllabus materials.</p> <p>The descriptions of the range of cross-curriculum areas will be reviewed in the further development of the syllabus.</p> <p>The extent and provision of information in relation to the cross-curriculum areas, including the location of the codes, will be reviewed in the further development of the syllabus.</p> <p>Syllabus support materials will include samples of units of work. These samples will provide further advice on the implementation of the cross-curriculum areas.</p>

5.7 Students with special education needs, including Years 7–10 Life Skills outcomes and content

Summary

The provision of curriculum materials inclusive of the full range of students was supported. The inclusion of the Years 7–10 Life Skills outcomes and content in the Mathematics syllabus was also supported.

There was also support for the advice about the inclusion of students with special education needs. Respondents noted that the advice regarding curriculum options for and assessment of students with special education needs was appropriate. Respondents also identified the value of existing syllabus support materials in providing further advice relating to students with special education needs.

Feedback affirming the information on students with special education needs, including Years 7–10 Mathematics Life Skills outcomes and content

Feedback	Sources
<p>Support for information about students with special education needs</p> <p>Advice regarding curriculum options, including the use of adjustments, for students with special education needs was seen as relevant.</p> <p>Assessment and reporting advice for students with special education needs was seen as appropriate.</p> <p>Existing syllabus support materials for students with special education needs provide relevant advice in relation to providing relevant teaching, learning and assessment opportunities.</p>	<p>DEC NSWTF CEOSYD</p> <p>DEC CEOWF</p> <p>NSWTF SEC</p>
<p>Support for Mathematics Life Skills</p> <p>The provision of the Life Skills outcomes and content to meet the needs of students with special education needs is strongly supported.</p> <p>The Life Skills outcomes are appropriate, well structured and easy to follow.</p>	<p>DEC MANSW SEC SE</p> <p>DECSYD CEOWF SE TSSC Consultation meeting (1)</p>

Key matters raised and proposed actions

Key matters	Sources	Proposed actions
<p>Syllabus information and advice relating to students with special education needs</p> <p>Clarification is required about some of the advice, including the role of curriculum planning; access to age appropriate content; adjustments to teaching, learning and assessment; the definition of students with special education needs and the students for whom the Life Skills course is designed.</p> <p>Advice about how to program to meet the individual needs of students across a range of settings is required.</p> <p>Clarification is required about course options and requirements for students with special education needs, including for students with special education needs in K–6 and students undertaking Life Skills outcomes and content.</p>	<p>SE DEC NSWTF SEC BCC (History)</p> <p>NSWTF BCC (Mathematics) SE SEC</p> <p>DEC SE NSWTF MANSW MUSEC (response to draft English syllabus) SEC CEOBB CEOWF Consultation meeting (2) Survey</p>	<p>The advice provided in Sections 1.2, 8 and 10 will be reviewed and clarified. The revised national definition of disability and the Disability Standards for Education will be used in this process.</p> <p>Advice about planning, programming and making adjustments to teaching, learning and assessment activities to meet the needs of students with special education needs will be provided in syllabus support materials. Advice in the support document <i>Life Skills Years 7–10: Advice on Planning, Programming and Assessment</i> will also be reviewed.</p> <p>The advice provided in the syllabus and in the support materials will be reviewed and clarified.</p>
<p>Mathematics Life Skills outcomes and content</p> <p>Clarification is required regarding whether students with special education needs are required to complete all content points in K–6 and 7–10 (with the exception of Life Skills).</p>	<p>SE NSWTF MUSEC</p>	<p>Syllabus text will be amended to clarify the nature of the content, particularly in K–6, for students with special education needs.</p>

Key matters	Sources	Proposed actions
<p>Further clarification regarding the relationship between Life Skills outcomes and content and the Stage 4/5 outcomes and content is required.</p>	<p>DEC CEOBB TSSC SE Consultation meeting (2)</p>	<p>Possible models for demonstrating links between Life Skills outcomes and Stage 4/5 outcomes will be considered in the further development of the syllabus materials.</p>
<p>Various comments were made relating to the Life Skills outcomes:</p> <ul style="list-style-type: none"> • outcomes need to be structured in a more sequential manner • outcomes relating to language use are not relevant in mathematics • outcomes are too broad and need to be more specific and measurable. 	<p>BCC (Mathematics) SE CEOW BCC (Mathematics) CEOBB TSSC BCC (Mathematics)</p>	<p>The Life Skills outcomes will be reviewed for appropriateness, measurability and sequence.</p>
<p>The nature and scope of the outcomes and content needs to be reviewed to meet the needs of students with more significant difficulties.</p>	<p>DEC CEOBB Stakeholder AASE</p>	<p>The outcomes and content will be reviewed to ensure appropriate access levels are provided for students with significant difficulties. Additionally, experiential outcome indicators will be considered for inclusion where appropriate.</p>
<p>Life Skills content needs to be age-appropriate and relevant to the life experiences of students with special education needs.</p>	<p>BCC (Mathematics) TSSC SE CEOBB Consultation meeting (1)</p>	<p>Life Skills content will be reviewed to ensure it is age-appropriate and that they are applicable to the life experiences of the students.</p>
<p>The structure of the outcomes and content requires further clarity; the relationship between the proficiency and content outcomes is unclear, as is the relationship between Life Skills outcomes and Australian curriculum content.</p>	<p>BCC (Mathematics) DECSYD CEOW IEU</p>	<p>The Years 7–10 Life Skills outcomes and content will be reviewed in the further development of the syllabus.</p>
<p>Further advice is required in relation to the teaching of the content.</p>	<p>BCC (Mathematics) CEOBB CEOW Consultation meeting (1)</p>	<p>Some teaching strategies will be included in the development of the syllabus support materials.</p>

5.8 Continuum of Learning in Mathematics K–10

Summary

Survey respondents (Primary 80% and Secondary 83%) agreed that the continuum of learning provides a useful description of the scope and sequence of learning in Mathematics. Feedback from teacher consultation, stakeholder and BCC meetings suggested that the key mathematical ideas for each substrand are required to assist teachers.

82% of Primary and 83% of Secondary survey respondents agreed that the stage statements are an appropriate summary of what is expected of students at different stages. BCC meeting and written submissions suggested that the stage statements should be reviewed to identify any inconsistencies. Primary (76%) and Secondary (83%) survey respondents agreed that the syllabus forms a sound basis for developing teaching and learning programs.

Feedback affirming the continuum of learning in Mathematics K–10

Feedback	Sources
<p>The sequencing of the content across K–10 is logical and appropriate.</p> <p>Secondary Mathematics teachers indicated that they were of the view that it was unnecessary to include in the syllabus a set of ‘Key Ideas’, as in the current syllabus.</p> <p>There was strong support for the inclusion in the syllabus of a continuum of learning in Mathematics that will allow teachers to monitor student progression across K–10, from stage to stage in each substrand.</p>	<p>DECSYD CEOBB CEOL Submission 3 Submission 9 Submission 14 Consultation meeting (7) Consultation meeting (5)</p> <p>MANSW DEC DECSYD CEOBB CEOSYD CEOW Submission 3 Submission 8 Submission 13 Consultation meeting (5) Survey</p>

Key matters raised and proposed actions

Key matters	Sources	Proposed actions
<p>Continuum of learning</p> <p>The use of the draft outcomes to describe the continuum of learning in Mathematics is inappropriate due to the breadth of the outcomes. In addition to the continuum of outcomes, the syllabus should include a K–10 continuum of ‘Key Ideas’ for the assistance of teachers, as in the current Mathematics K–10 syllabuses.</p> <p>The K–10 continuum of outcomes should:</p> <ul style="list-style-type: none"> • be placed before the syllabus content in the final syllabus • include the Years 7–10 Life Skills outcomes. <p>A continuum of the <i>Australian curriculum: Mathematics</i> content descriptions should be provided in the final syllabus for the assistance of teachers.</p>	<p>DEC DECSYD CEOWF CEOW BCC Stakeholder MANSW PPA Submission 11 Submission 8 Consultation meeting (7) Survey</p> <p>CEOW Consultation meeting (5) Survey</p> <p>DEC</p> <p>CEOSYD Consultation meeting (2) Survey</p>	<p>Additional outcomes will be included, where appropriate, to reduce the breadth and increase the specificity of the outcomes in the final syllabus. In addition, a K–10 continuum of ‘Key Ideas’ will be developed for inclusion in syllabus support materials.</p> <p>The nature, extent and location of the K–10 continuum of outcomes in the syllabus will be reviewed in the further development of the Mathematics K–10 syllabus materials, in light of the consultation feedback on the four Phase 1 K–10 draft syllabuses.</p> <p>The provision of a continuum of the <i>Australian curriculum: Mathematics</i> content descriptions will be considered in the further development of the Mathematics K–10 syllabus materials.</p>
<p>Stage Statements</p> <p>The draft stage statements need to be reviewed for the identification of inconsistencies with the draft syllabus content.</p> <p>The stage statements should be placed before the content in the final syllabus.</p>	<p>DECSYD CEOW BCC Survey</p> <p>CEOBB CEOSYD CEOW Consultation meeting (1)</p>	<p>The syllabus materials will be checked carefully for any inconsistencies in the further development of the Mathematics K–10 syllabus materials.</p> <p>The location of the Stage Statements in the syllabus will be reviewed in the further development of the Mathematics K–10</p>

Key matters	Sources	Proposed actions
<p>There needs to be more information provided in the <i>Mathematics K–10 Draft Syllabus</i> in relation to students’ prior-to-school learning. This includes the need for explicit links to the <i>Early Years Learning Framework</i>.</p>	<p>DEC CEOWF Stakeholder Consultation meeting (3)</p>	<p>syllabus materials, in the light of the consultation feedback on the four Phase 1 K–10 draft syllabuses.</p> <p>The provision of more information in relation to students’ prior-to-school learning, including explicit links to the <i>Early Years Learning Framework</i>, will be considered in the further development of the Mathematics K–10 syllabus materials.</p>
<p>The purpose of the syllabus Stage Statements needs to be explained more clearly in the final syllabus.</p>	<p>Consultation meeting (1)</p>	<p>The explanation of the purpose of the stage statements will be reviewed in the further development of the Mathematics K–10 syllabus materials, in light of the consultation feedback on the four Phase 1 K–10 draft syllabuses.</p>
<p>Clarification of the relationship between the syllabus Stage Statements and the <i>Australian curriculum: Mathematics</i> achievement standards needs to be provided.</p>	<p>CEOSYD</p>	<p>Clarification of the relationship between the syllabus stage statements and the <i>Australian curriculum: Mathematics</i> achievement standards will be provided in the final syllabus materials.</p>

5.9 Assessment

Summary

In general, consultation feedback was supportive of the assessment advice provided in the *Mathematics K–10 Draft Syllabus*. Primary (66%) and Secondary (84%) survey respondents agreed that the assessment advice will assist teachers in making judgements about students' achievement in a standards framework. However, a significant number of survey respondents indicated that the advice should be more specific in nature and describe a clear and consistent approach to the assignment of A–E grades for each stage of the curriculum. Primary (70%) and Secondary (82%) survey respondents agreed that the assessment advice will assist teachers to apply assessment for learning principles. However, other feedback indicated the need for more specific advice to support the implementation of 'assessment for learning' and 'assessment of learning' strategies.

Feedback affirming the assessment advice

Feedback	Sources
The advice provided in the <i>Mathematics K–10 Draft Syllabus</i> in relation to assessment strategies is clear.	CEOSYD Submission 2
The advice provided on assessment will assist teachers in applying the principles of 'assessment for learning'.	DECSYD CEOWF PPA

Key matters raised and proposed actions

Key matters	Sources	Proposed actions
<p>Suggested additions/changes</p> <p>Advice in relation to assessment needs to be:</p> <ul style="list-style-type: none"> more specific to assist teachers in making judgements about student achievement in a standards-based framework. more consistent across the learning areas and include clearer descriptions of 'assessment for learning' and 'assessment of learning', as well as stage-specific advice. <p>The assessment advice should be linked to A–E reporting in schools in order to describe a clear and consistent approach to the assignment of A–E grades for each stage of the curriculum.</p>	<p>DECSYD CEOW IEU Consultation meeting (1) Survey</p> <p>DECSYD PPA Consultation meeting (4)</p> <p>Survey</p>	<p>The advice in relation to assessment in the <i>Mathematics K–10 Draft Syllabus</i> will be reviewed, and extended where necessary, to ensure that it is of sufficient specificity and consistency, in the further development of the Mathematics K–10 syllabus materials.</p> <p>The provision of further advice in relation to reporting will be considered in the further development of the Mathematics K–10 syllabus support materials.</p>

Key matters	Sources	Proposed actions
<p>The advice in the syllabus in relation to assessment should be placed before the syllabus content.</p>	<p>CEOSYD CEOW Survey</p>	<p>The location of the advice in relation to assessment in the syllabus will be reviewed in the further development of the Mathematics K–10 syllabus materials, in the light of the consultation feedback on the four Phase 1 K–10 draft syllabuses.</p>
<p>Life Skills</p> <p>The A–E reporting process for students with special education needs, particularly those working on outcomes and content from a different stage needs to be reviewed.</p> <p>Advice regarding accommodations (changes to the environment), as well as learning adjustments (changes to teaching and learning), should be included in the ‘Assessment for students with special education needs’ section.</p> <p>The advice in the draft syllabus in relation to Years 7–10 Life Skills needs to be more specific.</p>	<p>SEC NSWTF</p> <p>DEC</p> <p>DECSYD CEOSYD</p>	<p>Section 10.3 provides flexibility for school sectors on ways of reporting for students with special education needs.</p> <p>Consistent with the Disability Standards for Education 2005, the term ‘adjustments’ applies to all measures taken to assist a student with a disability to participate on the same basis as their peers.</p> <p>The advice in the draft syllabus in relation to Years 7–10 Life Skills will be reviewed, and include more specific advice where appropriate, in the further development of the Mathematics K–10 syllabus materials.</p>

5.10 Other comments

Summary

Some respondents provided suggestions for the further development of syllabus materials, particularly in relation to the development of syllabus support materials. These suggestions included the development of a K–10 glossary of terms, as well as templates and samples of teaching and learning programs. They indicated a need for syllabus support materials for assessment and reporting and the teaching of content and perspectives new to K–10 Mathematics or new to a particular stage of learning.

Key matters raised and proposed actions

Key matters	Sources	Proposed actions
<p>Online syllabus</p> <p>The online version of the NSW syllabus should include:</p> <ul style="list-style-type: none"> • a range of filtering options (eg by stage or by strand/substrand) • a ‘rollover’ function in relation to terms etc in the syllabus that will allow immediate access to definitions from the syllabus glossary • an ‘e-space’ for teachers to share ideas and/or resources. 	<p>CEOW PPA Consultation meeting (2) Consultation meeting (1) Consultation meeting (1)</p>	<p>A web-based version of the syllabus is being developed. It will include a range of functionalities such as those suggested.</p>
<p>Implementation</p> <p>Further information needs to be provided in the final syllabus to assist teachers to support the diversity of learners in NSW, including Aboriginal and Torres Strait Islander students and students for whom English is an additional language or dialect.</p> <p>A K–10 glossary of terms is needed for the assistance of teachers.</p> <p>Templates for scope and sequence documents and detailed teaching and learning programs are needed. Examples of scope and sequence documents and teaching and learning programs should also be included.</p>	<p>DEC</p> <p>DECSYD CEOW CCTPN Stakeholder Consultation meeting (6)</p> <p>DECSYD Submission 8 Stakeholder Consultation meeting (8) Survey</p>	<p>Further information will be developed to support the diversity of learners in NSW in the further development of the syllabus materials.</p> <p>A K–10 glossary of terms will be developed in the further development of the syllabus materials.</p> <p>Templates, and sample scope and sequence and programming materials, will be developed as part of the syllabus support materials.</p>

Key matters	Sources	Proposed actions
<p>An online programming tool should be provided for teachers to easily create teaching and learning programs.</p> <p>Updated versions of existing K–6 units of work, together with new units of work, are needed.</p> <p>Syllabus support materials for Assessment and Reporting should include sample assessment tasks and student work samples (including mid-stage work samples) to assist in making judgements based on a A–E reporting scale.</p> <p>Hyperlinks to the relevant content in the syllabus should be provided from:</p> <ul style="list-style-type: none"> • syllabus support materials developed by the Board • student work samples (including those on the Board’s Assessment Resource Centre) • resources provided through the <i>Australian curriculum: Mathematics</i> website. <p>Teachers are concerned that they may be required to assess students against Year-based achievement standards developed for the <i>Australian curriculum: Mathematics</i> while working in the stage-based NSW K–10 Mathematics curriculum.</p>	<p>Submission 8 Consultation meeting (6)</p> <p>DECSYD CEOL Stakeholder Submission 1 Submission 2 Consultation meeting (7) Survey</p> <p>DECSYD Submission 1 Submission 2 Submission 3 Submission 8 Consultation meeting (7)</p> <p>CEOSYD CEOL CCTPN Submission 3 Submission 8 Consultation meeting (4) Survey</p> <p>CEOW CCTPN Consultation meeting (5)</p> <p>BCC Consultation meeting (1) Survey</p> <p>DECSYD CEOSYD</p>	<p>The provision of an online programming tool will be considered as a component of the web-based syllabus.</p> <p>It is proposed that the existing K–6 units of work will be updated, and materials targeting content new to the syllabus or new to a stage, will be developed as part of syllabus support materials.</p> <p>Sample assessment tasks, together with sample student responses, will be included in assessment and reporting materials available through the Board’s Assessment Resource Centre.</p> <p>The linking of syllabus support materials and student work samples to the relevant content in the syllabus will be considered in the development of the electronic version of the syllabus.</p> <p>The Board will provide advice to schools regarding the assessment of students in relation to the stage-based NSW K–10 Mathematics curriculum, in the context of Year-based achievement standards developed for the <i>Australian curriculum: Mathematics</i>.</p>

Key matters	Sources	Proposed actions
<p>A document that outlines what is new in the syllabus and what has changed needs to be provided with the final syllabus. This is particularly important for the transition from K–6 to Years 7–10 to ensure that students do not have gaps in their learning.</p> <p>Specific syllabus support materials targeting content that is new to the syllabus or new to a particular stage are needed. These materials should include syllabus support materials in relation to:</p> <ul style="list-style-type: none"> • the Cartesian plane, order of operations, fractions, and different number systems in the content for Stage 3 • transformations on the Cartesian plane, statistics, and probability in the content for Stages 4 and 5. <p>Syllabus support materials should include video and online resources (such as digital learning objects, interactive whiteboard (IWB) files), and links to a variety of websites.</p> <p>Syllabus support materials should include:</p> <ul style="list-style-type: none"> • language-based activities • real-life examples for each substrand • models of open-ended questions • links to other learning areas • links to National Assessment Program – Literacy and Numeracy (NAPLAN) • information about implementing the cross-curriculum areas. <p>Syllabus support materials are needed to assist teachers with the implementation of the cross-curriculum areas of the syllabus.</p> <p>A range of professional development activities, both face-to-face and online, will be needed to familiarise teachers with content that is new to the <i>Mathematics K–10 syllabus</i> or new to a stage.</p>	<p>DECSYD Stakeholder Submission 11 Consultation meeting (7) Survey</p> <p>DECSYD CEOBB CEOWF Stakeholder NSWTF Consultation meeting (4) Survey</p> <p>Consultation meeting (3) Survey</p> <p>DECSYD Consultation meeting (1)</p> <p>DECSYD Submission 8 Consultation meeting (1) Survey</p> <p>DECSYD CEOSYD CEOL MANSW PPA NSWTF IEU Submission 3 Consultation meeting (2) Survey</p>	<p>Advice in relation to what is new in the syllabus, and what has changed, will be developed in the further development of the syllabus materials.</p> <p>Syllabus support materials will be developed that focus on content that is new to the syllabus or new to a particular stage.</p> <p>Materials in relation to a range of modes of delivery will be considered for inclusion in syllabus support materials.</p> <p>A broad range of materials will be developed to support teachers in the implementation and ongoing delivery of the NSW <i>Mathematics K–10 syllabus</i>.</p> <p>Further information and advice in relation to the implementation of the cross-curriculum areas will be developed as part of syllabus support materials.</p> <p>A broad range of online materials will be developed to support teachers in the implementation and ongoing delivery of the NSW <i>Mathematics K–10 syllabus</i>.</p>

Key matters	Sources	Proposed actions
<p>Life Skills</p> <p>Further advice and support is required for teachers regarding supporting students with special education needs in an integrated setting.</p> <p>The advice to teachers regarding programming for Life Skills outcomes and content in an integrated setting needs to be strengthened.</p>	<p>SEC SE NSWTF</p> <p>SEC NSWTF</p>	<p>The advice in syllabus support materials for each syllabus will be strengthened to include more detailed advice around curriculum adjustments and sample units of work that incorporate adjustments.</p> <p>The support document <i>Life Skills Years 7–10: Advice on Planning, Programming and Assessment</i> will be reviewed to include a sample unit of work integrating Life Skills outcomes and content with regular outcomes and content.</p>

6 Respondents

6.1 Responses were received from the following groups and individuals

Organisation/Group/School/Individual	Code
Organisations	
Australian Association for Special Education NSW	AASE
Mathematical Association of New South Wales	MANSW
NSW Department of Education and Communities	DEC
NSW Primary Principals' Association	PPA
NSW Teachers Federation	NSWTF
NSW/ACT Independent Education Union	IEU
Sector Groups	
Catholic Schools Office – Diocese of Broken Bay	CEOBB
Catholic Education Office – Diocese of Lismore	CEOL
Catholic Education Office – Diocese of Wilcannia-Forbes	CEOWF
Catholic Education Office – Diocese of Wollongong	CEOW
Catholic Education Office – Sydney Region	CEOSYD
NSW Department of Education and Communities, Sydney Region	DECSYD
Teacher Groups	
Central Coast Teaching Principals' Network (Lorene Alexander, Ian Baxter, Sondra Broadhurst, Tracey McKeown, Rose Pengelly, Rosslyn Raftery and Garry Standen)	CCTPN
Schools	
Mater Dei Catholic Primary School, Wagga Wagga	Submission 1
St Anthony's Primary School, Kingscliff	Submission 2
St Finbarr's School, Byron Bay	Submission 3
Individuals	
Peter Brown, Lecturer and Director of First Year Studies, School of Mathematics and Statistics, University of New South Wales	Submission 4
Lyndall Crowther, Teacher, St Philip's Christian College, Waratah	Submission 5
Joshua Harnwell, Assistant Head Teacher Mathematics, Knox Grammar School, Wahroonga	Submission 6
Jan Harte, Consultant, Catholic Education Office, Sydney Region	Submission 7
Sue MacGibbon, K–10 Numeracy Consultant, Port Macquarie Office, NSW Department of Education and Communities	Submission 8
Alan McSeveny, Author, On Your Mark Publishing	Submission 9
Marilyn Murray, Teacher, Marsden Intensive English Centre, West Ryde	Submission 10
Debbie Ross, Teacher, Merewether Public School	Submission 11
Jan Stone, Consultant, Association of Independent Schools of NSW	Submission 12

Organisation/Group/School/Individual	Code
Andrew Winfield, Head Teacher Mathematics, Port Macquarie High School	Submission 13
Robert Yen, Editor/Author, New Century Mathematics textbook series	Submission 14
Special Education	
Board of Studies Special Education Committee	SEC
Special Education teacher focus group	SE
Target Special Schools Consultation	TSSC
Macquarie University Special Education Centre	MUSEC

6.2 Board Curriculum Committee consultation meeting on 15 August 2011 (code: BCC)

Name	Organisation
Jenny Allum	Board of Studies NSW
Judy Anderson	Professional Teachers Council NSW
Leigh Crowden	TAFE NSW
Peter Gould	NSW Department of Education and Communities
Jan Harte	Catholic Education Commission, NSW
Anne Hastings	Chair
David Hope	Federation of Parents and Citizens Associations
Lenie Kumulia	NSW Parents Council
Karen McDaid	Professional Teachers' Council NSW
Vicki O'Rourke	NSW Primary Principals' Association
Ernest Pekar	NSW Teachers Federation
Kirsten Tripet	Association of Independent Schools of NSW

6.3 Stakeholder consultation meeting on 16 August 2011 (code: Stakeholder)

Name	Organisation
Shirley Brady	Catholic Education Commission
Garry Brown	Association of Heads of Independent Schools of Australia
Peter Brown	NSW Vice-Chancellors' Committee
Angela D'Angelo	Catholic Education Commission
Matt Dooley	Independent Primary Schools Heads Association of Australia
Peter Gould	NSW Department of Education and Communities
David Hope	Federation of Parents and Citizens' Associations of NSW
Sally Howell	Australian Association for Special Education NSW Chapter
Mia Kumar	NSW Secondary Principals' Council
Moya Muller	Special Education Committee
Kerry Poole	NSW Primary Principals' Association
John Raftery	NSW/ACT Independent Education Union
Steve Tobias	Committee of Chairs of Academic Boards
Peter Tompkins	Association of Independent Schools of NSW

6.4 Teacher consultation meetings

Mathematics K–10 Draft Syllabus afternoon consultations

Venue	Date	K–6	Years 7–10	Life Skills	Not Specified	Total
Tumbi Umbi	21 June	15	17		6	38
Baulkham Hills	20 July	31	31		3	65
Bankstown	25 July	24	27	3	2	56
North Ryde	27 July	38	24		8	70
Broken Hill	28 July	20	7		3	30
Goulburn	3 August	16	20			36
	Total	144	126	3	22	295

Primary meetings

Venue	Date	Number of participants
Bathurst	11 August	15
East Maitland	19 August	18
Wagga Wagga	23 August	17
St. Marys	26 August	16
	Total	66

Special education meeting

Venue	Date	Number of participants
Board of Studies	12 August	14