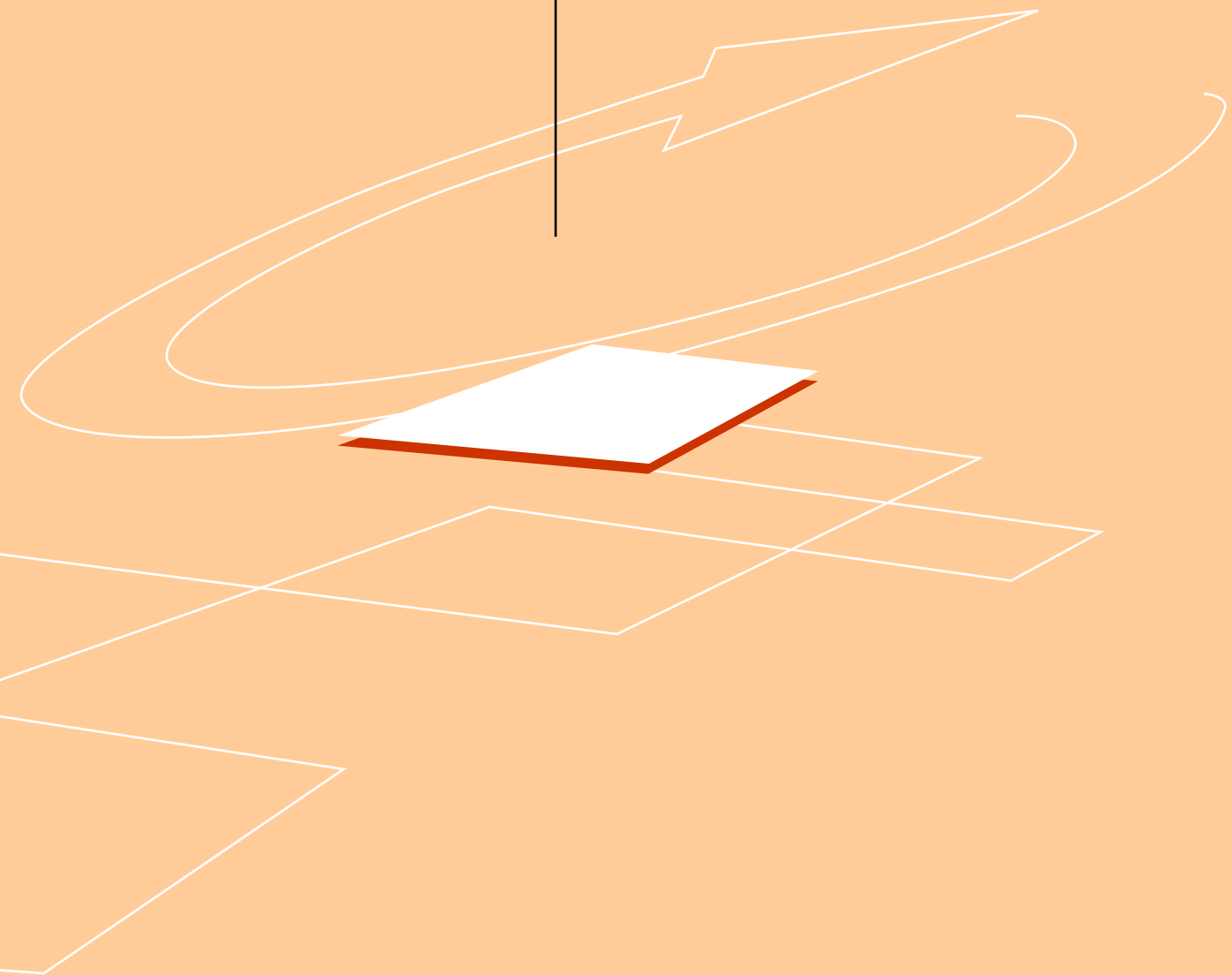


Chapter 5

Measures and Resources to Support Schools and Teachers



Characteristics of Measures and Resources to Support Schools and Teachers

The purpose of this chapter is to recommend measures and resources to support schools and teachers (including teacher librarians), premised on the principles and strategies set out in *Chapter Two*. We are especially aware of the concerns of teachers about the know-how to carry out the reforms and the workload which this will involve. Instead of the top-down linear model of "syllabus-teacher training-inspection" used in the past, we recommend the following measures and resources, which are flexible and diverse enough to suit the different needs of teachers and the varying contexts of schools:

- Continuous central support for essentials such as curriculum guides, textbook review, quality assurance
- A respect for professional knowledge, evidence-based practice, and capacity building amongst all parties involved
- Flexible time arrangements, and a diversity of options of supportive measures for schools and teachers
- Consideration of incentives for schools and teachers (e.g. recognition of courses for promotion and the professional career ladder)
- Measures and resources to target specific levels:

⇒ Systemic and community level – curriculum guides, examination reforms, curriculum bank, textbook review, learning and teaching resources, local and international consultancies, dissemination strategies and networks

⇒ School level – on-site school-based support, collaborative research and development projects, library development, dissemination strategies and networks, partnership amongst all parties

⇒ Teacher level - professional development programmes for teachers and principals, on-site school-based support, creation of time and space for teachers, dissemination strategies and networks

⇒ Student level – making use of the "space" of learning



Curriculum Guides of Key Learning Areas and different Key Stages.

Curriculum Guides and Documents

Purpose

The purpose of curriculum guides is to make the following recommendations for planning the whole-school curriculum:

- setting learning targets for learning and teaching based on the proposed framework in the consultation documents (November 2000) and public feedback
- time allocation and time-tabling
- different modes of organising the framework (e.g. content outline, subjects, modules) and subject choices
- learning and teaching strategies
- student assessment
- resources, exemplars for practice and any other useful information for teachers

Schedule

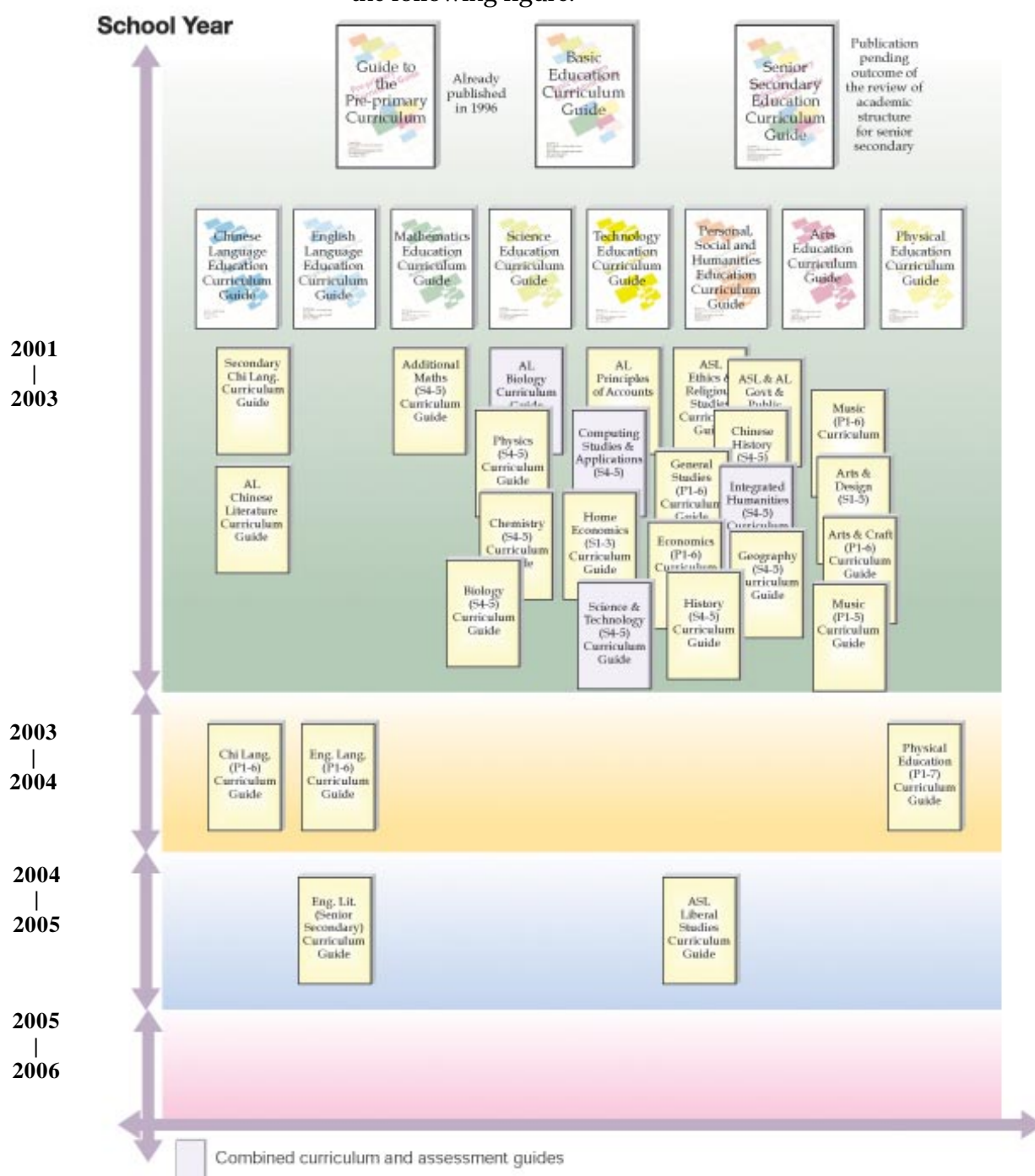
Curriculum Guides

- The new curriculum guides for basic education (P1-6; S1-3) and all the Key Learning Areas in basic education are scheduled to be completed in mid 2002.
- CDI will work jointly with tertiary institutions, experts and schools to conduct "seed" projects to inform recommendations in the curriculum guides, and/or to try out some of the recommendations.
- Any necessary new subject guides for Key Learning Areas and General Studies for Primary Schools in basic education arising from the new framework will be completed in 2003-04.
- All schools should start to implement the new curriculum framework gradually, starting from 2006-07, with a view to putting it into full implementation by 2010-11.
- Some examination subject guides (for S4-5, S6-7) scheduled for revision will be prepared in accordance with the new framework.
- AL Biology Curriculum Guide, Computing Studies and Applications (S4-5) Curriculum Guide, Integrated Humanities (S4-5) Curriculum Guide and Science and Technology (S4-5) Curriculum Guide are combined curriculum and assessment guides, jointly developed by HKEA and CDC.

Cross-Curricular Guidelines

- The four cross-curricular guidelines (for sex/civic/moral/environmental education) in the past will continue to serve schools. Learning and teaching resources as well as exemplars will be developed for the reference of schools when designing school-based life event programmes for promoting moral and civic education.

A schedule for the issue of the curriculum guides is presented in the following figure:



Teacher and Principal Development Programmes

Purpose and modes

- The purpose of the professional development programmes for teachers and principals is to enhance their knowledge and skills in curriculum change, learning and teaching, assessment and school-based curriculum development, so that they can enable students to achieve the learning goals and targets in the school curriculum.
- Different modes of professional development (e.g. web courses, fixed-hour courses, workshops, action learning) are planned in order to meet the specific purpose of each programme, and to cater for the different needs and roles of teachers and principals.
- "Learning through practice" should be a key feature of the programmes implemented to realise the reforms and provide the means for teachers to develop a life-long learning capacity. The contents of the courses will include updating experiences generated by research and development projects, action research and evaluation.

Programmes and Schedule

Priority will be given to the following in 2001-02 to 2005-06:

- Nurturing school heads and principals as curriculum leaders in primary and secondary schools (in all facets of curriculum development)
- Nurturing curriculum leaders in each Key Learning Area, General Studies for Primary Schools, and Moral and Civic Education.
- Enhancing teacher professionalism in :
 - ⇒ four key tasks – moral and civic education, reading to learn, project learning, information technology for interactive learning
 - ⇒ infusing critical thinking and creativity into learning and teaching of KLAs
 - ⇒ assessment for learning
 - ⇒ catering for learner differences
 - ⇒ curriculum change and school-based curriculum development

- Enhancing teachers' knowledge in the specific requirements of the Key Learning Areas (e.g. updating knowledge, curriculum planning, learning and teaching strategies)
- Refresher training for all in-service teacher librarian
- Regular annual induction courses for new teachers and new panel chairpersons in each Key Learning Area and for new teacher librarians

Incentives for Teachers

- It is recommended that courses related to curriculum reform should be regarded as equivalent to "Refresher Training Courses" for primary and secondary school teachers, teacher librarians or to any similar course needed for advancement to senior levels.
- Due recognition should also be considered for participation in action research, and research and development projects related to curriculum development in the long run.
- Reviews of professional career development in the future should take into consideration in-service courses in curriculum reform and participation in research and development projects.
- Schools and principals are advised to recognise teachers' professional development in staff appraisal.

Teacher and Principal Development Programmes from 2001-02 to 2005-06

Curriculum management and leadership	Primary Schools heads and middle managers	
	Secondary School principals and middle managers	
	Curriculum leadership in KLAs, General Studies for Primary Schools and Moral and Civic Education	Chinese Language Education
		English Language Education
		Mathematics Education
		Personal, Social and Humanities Education
		Science Education
		Technology Education
		Arts Education
		Physical Education
		General Studies for Primary Schools
		Moral and Civic Education
Learning and teaching strategies, assessment	Project learning	
	Reading to learn	
	Information technology for interactive learning	
	Assessment for learning	
	Infusing generic skills e.g. critical thinking, creativity	
	Catering for learner difference	
Specific needs of KLAs and General Studies for Primary Schools	Chinese Language Education	
	English Language Education	
	Mathematics Education	
	Personal, Social and Humanities Education	
	Science Education	
	Technology Education	
	Arts Education	

	Physical Education
	General Studies for Primary Schools
Regular courses	In-service training course for new teacher librarians
	Refresher courses for teacher librarians
	Induction of new teachers in KLAs
	Induction of new panel heads in KLAs

Textbooks and Resources on Learning and Teaching

Textbooks

- Well-written textbooks have a positive role to play in student learning.
- Textbooks to be written in the future will follow the new curriculum framework. They will contain the core elements, while leaving space for students to further acquire and build up knowledge and for teachers to develop students' diverse learning skills.
- Textbooks should not only provide materials to be taught but also help learners to understand key concepts and use generic skills.
- To facilitate the preparation of textbooks and learning materials, publishers will be informed of the latest curriculum developments and the multiple stages of the consultation process through the CDC Homepage.
- To ensure the quality of textbooks, a set of guiding principles for quality textbooks supporting the curriculum framework and a learner-centred approach to learning and teaching has been formulated for the writing, reviewing and selection of textbooks.
- Teachers should use textbooks flexibly in combination with other learning materials to achieve learning targets and enhance learning effectiveness.
- *A web site called "Textbook World" is being developed in HKeducationCITY (<http://www.hkedcity.net>) to provide teachers, parents and students with a platform to express their views and provide user feedback on the standards and contents of textbooks.*

Resources on Learning and Teaching for Teachers

The following resources are being developed to support teachers and schools:

- The Learning and Teaching Series
 - ⇒ Guidebooks / Tool kits
 - ⇒ Multi-media packages
 - ⇒ Exemplars of learning and teaching practices
 - ⇒ Self-access learning materials for teachers on specific issues (e.g. on motivation, catering for learner differences, assessment for learning)

⇒ CD-ROM Curriculum Planners

- Action Research publications
- Reports on research and development projects
- Educational Television programmes and other multimedia developments
- Life-wide learning database
- *HKeducationCITY* web site
- Resource lists on web sites (including the updated work of different organisations)

Collaborative Research and Development ("Seed") Projects

Purpose

The purpose of collaborative research and development projects is to:

- generate/"seed" useful experiences for the reference of schools, teachers and the community
- develop a critical mass of curriculum change agents and leaders (e.g. teachers, school heads, teacher librarians) to enhance the capacity for reform
- act as an impetus to school-based curriculum development

Themes

All projects are geared towards promoting the learning capabilities of students to achieve the learning targets of the school curriculum in KLAs, General Studies for Primary Schools and other relevant contexts. The following themes will either stand alone as separate projects (in line with the key emphases of the reforms) or act as an integral part of projects in Key Learning Areas:

- Critical thinking and creativity
- Catering for learner differences
- Assessment for learning (including portfolio)
- Four key tasks – moral and civic education, reading to learn, project learning, information technology for interactive learning
- School-based curriculum development
- Curriculum organisations and learning and teaching strategies in KLAs/subjects

Characteristics

Each project:

- begins with practical issues (e.g. enhancing students' capability to learn in the classroom, assessment needs, KLAs) in the natural settings of schools and the community in Hong Kong.
- is based on principles/theories and puts them into practice.
- is evidence-based, evaluative, adaptable to other situations, and suggests actions for improvement.
- is collaborative, involving the participation of schools, curriculum developers, tertiary institutions, and local and international consultants.
- empowers teachers and schools.
- varies in size and objectives (e.g. a single lesson, an activity, a unit, a 3-year longitudinal study), and in the way development and research components interact.
- may build on some earlier success that has worked to the benefit of students learning, for example:
 - ⇒ innovations initiated by the schools themselves
 - ⇒ consultancy studies on learner differences
 - ⇒ action research projects in school undertaken by CDI, QEF and tertiary institutions.
- serves the immediate needs of schools faster than basic research, which segregates development from research and is not yet translated into practice.
- will be evaluated and improved on the basis of experience at the end of each year, in terms of change processes, teacher change and impact on learning.
- the experience generated from the “seed” projects will be disseminated through effective channels.

Participation

- There will be an invitation to schools each year. Schools who have successfully completed a project and nurtured curriculum leaders can help other schools in the next year. It is quality rather than quantity that matters. Additional resources (e.g. in the form of supply teachers) should be given to schools in which teachers will play the role of leaders.

- There will be continuous liaison among schools, ED, tertiary institutions, QEF, SCOLAR and research associations to exchange information, collaborate and complement the work of each other.

Curriculum Bank

Purpose

- A curriculum bank of authentic exemplars showing how students can learn in the curriculum has been developed. It is available at <http://cd.ed.gov.hk> and its purpose is to provide:
 - ⇒ useful references to inform daily practice
 - ⇒ ready-to-use learning and teaching resources
 - ⇒ opportunities for teacher development through the conceptualisation of useful experiences in the exemplars
 - ⇒ a platform for contributions from teachers and the exchange of experiences

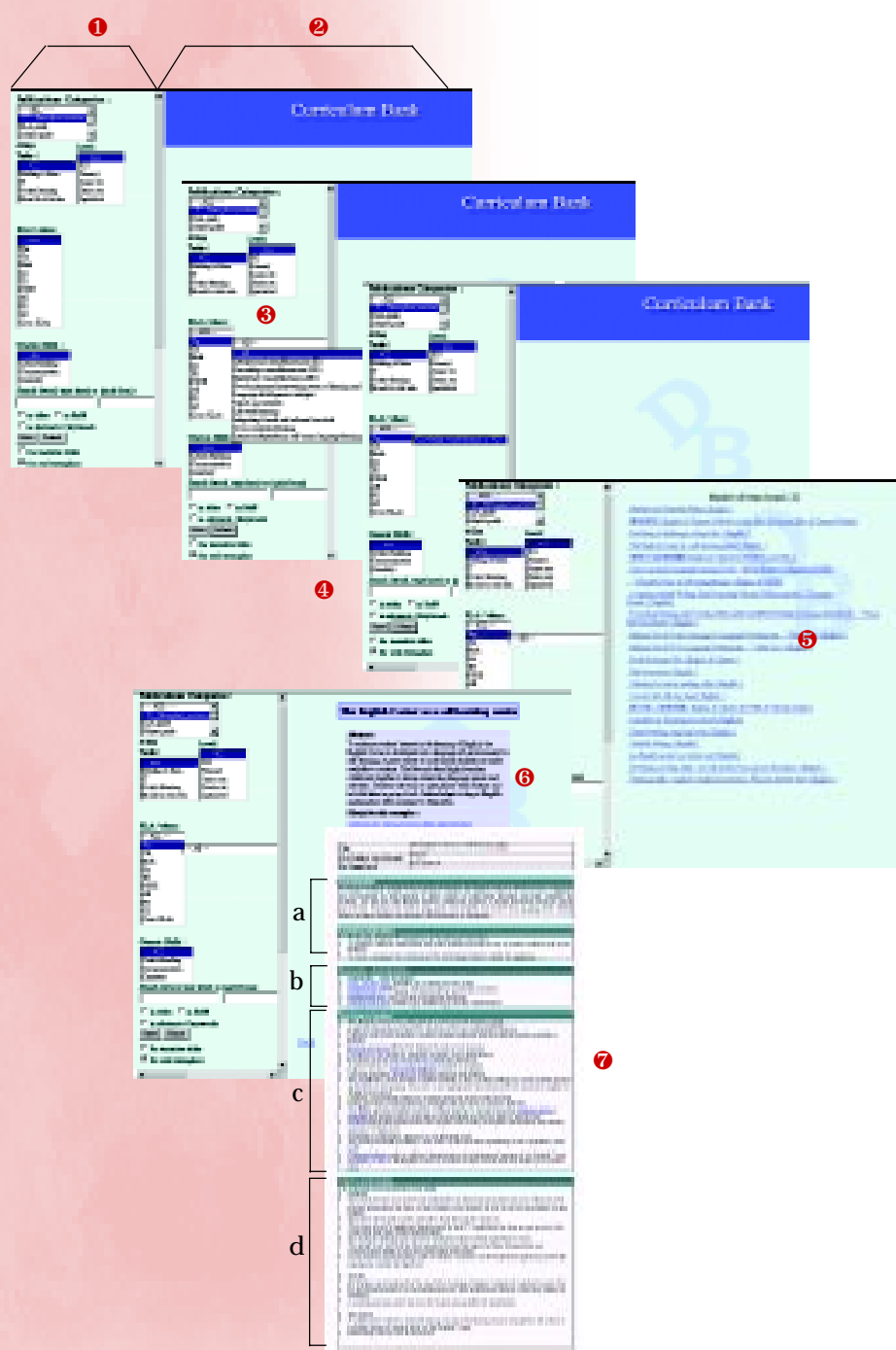
Focus

- The bank will focus on the key emphases of curriculum development for 2001-02 to 2005-06:
 - ⇒ Development of generic skills (critical thinking, creativity and communication), and values and attitudes through the contexts of KLAs
 - ⇒ Learning and teaching processes to achieve learning targets in KLAs
 - ⇒ How new forms of curriculum organisation in KLAs facilitate the achievement of learning targets
 - ⇒ The four key tasks of moral and civic education, reading to learn, project learning, IT for interactive learning
 - ⇒ Catering for learner differences
 - ⇒ Assessment for learning
 - ⇒ School-based curriculum development

Sources and Schedule

- The bank of exemplars is to be enriched by research and development projects. Contributions from teachers and schools, tertiary institutions and all partners will be highly valued.
- By 2005-06, a full bank of exemplars for the whole curriculum framework will be available.

Seven Steps to Access the Curriculum Bank



The web page is divided into 2 parts:

search criteria in ①, and exemplars displayed in ②

Select from different categories of criteria ③, such as Key Learning Areas, key tasks, levels and generic skills

Press the Submit button ④

A list of exemplars is displayed. Click on the desired exemplar ⑤ to view the summary

Click on the hyperlink ⑥ to view the detailed description

⑦ 4 tiers in the structure of each exemplar:

- a description– introduction and learning targets
- b resources– learning and teaching materials and web sites
- c learning, teaching and assessment strategies
- d impact on learning (as seen by students, teachers and schools)

Screen Capture of Seven Steps to Access the Curriculum Bank

Library Development

Our vision for school libraries is that they should empower each student to attain information literacy through collaborative teaching and resource-based learning. We recognise the importance of having professional full-time teacher librarians in schools and expect each of them to play a new role as information and media specialist, teaching partner, curriculum change agent and learning and teaching resources coordinator.

Support Strategies

- Strategies to support library development include:
 - ⇒ Promoting resource-based learning through a collaborative planning and teaching (CPT) “seed” projects
 - ⇒ Developing an interactive problem-solving and skill-learning web site known as "Internet Hunt" for Primary 3 to 6 students
 - ⇒ Developing and maintaining an updated reading list on recommended materials across the school curriculum
 - ⇒ Providing a web-based sharing database on library materials to facilitate cataloguing work among schools
 - ⇒ Assisting schools in library automation
 - ⇒ Seconding teacher librarians to the Library Section of the ED to support schools without central libraries

Enhancing the Professionalism of Teacher Librarians

- To enhance teacher librarians’ professionalism, the following measures have been drawn up:
 - ⇒ Refresher workshops/courses for all serving teacher librarians
 - ⇒ A resource pack to be developed embodying practical ideas for school heads/principals, teachers, teacher-librarians, parents and students, on how to make effective use of library and information services for promoting learning to learn among students
 - ⇒ Annual induction for all new teacher librarians
 - ⇒ Close liaison with professional associations and tertiary institutions on latest developments, and with the Leisure and Cultural Services Department on the interface between public and school libraries, to promote the collaboration between teacher librarians and teachers

School-based Curriculum Development Support

Professional Support to Primary Schools

- The CDI school-based curriculum development primary team will provide the following professional support to primary schools to help promote students' learning to learn capabilities:
 - ⇒ Conducting collaborative action research with teachers
 - ⇒ Adapting the central curriculum through collaborative lesson preparation
 - ⇒ Providing a consultancy service on curriculum-related areas in line with the curriculum reform
 - ⇒ Helping schools to link experience obtained at teacher level to the whole school through:
 - ◇ setting up a school-based curriculum policy
 - ◇ coherence of curriculum initiatives
 - ◇ teacher development
 - ◇ generating and conceptualising different models of change for the reference of schools
 - ◇ contributing to the curriculum and leadership course for primary school heads

Professional Support to Secondary Schools

- The CDI school-based curriculum development secondary team will provide professional support to secondary schools which have a high concentration of academically low achievers or have a wide mix of students of different abilities, in the following areas:
 - ⇒ curriculum planning
 - ⇒ learning, teaching and assessment strategies
 - ⇒ catering for learner differences
 - ⇒ life-wide learning
 - ⇒ curriculum management and leadership
- The support given will also be in line with the focuses for actions in Key Learning Areas and whole-person development, and will ultimately contribute towards whole-school curriculum development.

Other Support

- The Regional Education Offices (REO) will work in collaboration with schools in their development.
- The Advisory Inspectorate Division will provide post inspection support to schools which have undergone quality assurance inspection.

Creating Time and Space for Teachers and Learners

Teachers can create more time and space to help students learn in the following ways:

- "Trim down" the curriculum as recommended in Chapter Three
- Re-engineer work processes and reduce unnecessary administrative workload of teaching staff, supported by the principal and the School Management Committee (SMC)
- Introduce common lesson preparation time during which teachers can discuss and work together on how to help students to achieve learning targets
- Reduce the number of tests/examinations, to be replaced by the effective use of formative feedback
- Trust that all students can learn, so that some rules/regulations can be relaxed
- Reduce the amount of direct transmission of knowledge, so as to offer more space for student thinking (as suggested for learners below)
- Use readily available materials and resources for learning and teaching rather than preparing over-sophisticated ones
- Design flexible time-tables with flexible time allocation, and use library support
- Make good use of the Capacity Enhancement Grant (CEG)
- Harness the contributions of senior students to support younger learners and cultivate their responsibility and commitment
- Share useful practices with other teachers through networks

Learners can gain more learning “space” through the opportunities offered by teachers and their initiatives in the following ways:

- Take part more in life-wide learning activities outside the classroom
- Read more, see more, and think more about the meaning of what they read and see
- Reduce rote-learning, ask why things are as they are, and reflect on the answers
- Find better ways of studying and doing things, and find ways of making things better
- Pay more attention, and pay attention to more

Dissemination Strategies and Networks

Effective strategies for documenting, collecting and disseminating useful experiences and for building up networks of people are important for developing the overall capacity of schools, teachers, the community and the government. Through forming a variety of learning groups, everyone can benefit from everyone else’s experiences of how to help students achieve learning targets, raise levels of achievement and work effectively. The following are examples of important networks:

- Learning communities in research and development projects formed by the participants, consultants and the Curriculum Development Institute
- University partnership projects
- District Teacher Networks (DTN) formed by professional education associations
- Regional Education Offices networks formed by the Education Department
- Professional and subject-based academic associations
- Self-initiated networks of principals and teachers
- ***HKeducationCITY***
- Curriculum expert groups to be formed by the government of Hong Kong and Mainland China
- International educational networks

Local and International Consultancies

- To cope with the scale of the reforms, professional input and evidence-based practice are essential for capacity building of quality assurance. Local and international consultancies should be harnessed so that we can learn from and share experiences with other countries in order to meet international standards.
- A global community of partners can be formed for specific areas:
 - ⇒ learning and teaching
 - ⇒ critical thinking and creativity
 - ⇒ assessment for learning
 - ⇒ curriculum planning for each KLA
 - ⇒ moral and civic education
 - ⇒ curriculum change and evaluation

Partnership – All to Contribute

A major strategy and characteristic of the mode of curriculum development presented in this report is the call for partnership among all parties. Many parties can contribute in different ways to helping our students to learn effectively. A spirit of partnership and concerted effort is advocated so that all will collaborate and act together. The specific roles of each party are suggested below.

<i>Parties</i>	<i>Tasks</i>
Government	<ul style="list-style-type: none">⇒ Steer the direction of curriculum development with the CDC⇒ Support schools, teachers and students with different measures⇒ Conduct continuous review and evaluation
School heads/principals	<ul style="list-style-type: none">⇒ Lead whole-school curriculum development<ul style="list-style-type: none">- consider students' needs and the school's context- develop a curriculum and learning plan for the schools- broaden students' opportunities for whole-person development and life-long learning

	<ul style="list-style-type: none"> ⇒ Encourage teachers to take part in professional development programmes ⇒ Evaluate the impact of change in school ⇒ Suggest measures to improve learning
Department heads/ middle managers in schools	<ul style="list-style-type: none"> ⇒ Develop plans for relevant KLA and curriculum areas in collaboration with other subjects/departments whenever necessary ⇒ Assist principals in implementing curriculum plans ⇒ Develop a professional development plan for staff in the department ⇒ Evaluate and improve continuously
Teachers	<ul style="list-style-type: none"> ⇒ Promote priority generic skills (critical thinking, creativity communication) in the learning and teaching of KLAs ⇒ Use appropriate teaching, learning and assessment strategies to motivate students and to improve learning ⇒ Develop a personal plan of professional development and life-long learning
Teacher librarians	<ul style="list-style-type: none"> ⇒ Work collaboratively with other teachers in planning, teaching, and topping up library resources ⇒ Help students to use the library in ways that are conducive to learning to learn ⇒ Improve the library service in schools e.g. extend the opening hours with help from other people where appropriate
Students	<ul style="list-style-type: none"> ⇒ Take responsibility for their own learning ⇒ Provide feedback to teachers on how to help them learn better ⇒ Contribute, along with schools, teachers, and other parties to their own whole-person development
Parents	<ul style="list-style-type: none"> ⇒ Support the school's curriculum plans ⇒ Complement the work of the school in moral education at home ⇒ Communicate with the school on expected changes ⇒ Share the values of learning to learn and support the students and the school

	<ul style="list-style-type: none"> ⇒ Develop a culture of parent participation in the curriculum development of the school
Employers	<ul style="list-style-type: none"> ⇒ Broaden recruitment criteria ⇒ Provide work experience opportunities for students ⇒ Provide feedback to the government on <ul style="list-style-type: none"> - Students' capabilities in the workplace - Areas requiring improvement
Teacher educators	<ul style="list-style-type: none"> ⇒ Develop and conduct RD and longitudinal research projects to inform curriculum policy and practice in schools ⇒ Share the significant findings of the research through contributions to the bank of exemplars ⇒ Strengthen pre-service and in-service programmes <ul style="list-style-type: none"> - to help teachers promote learning to learn - to fill gaps in areas such as assessment for learning - to provide life-long learning opportunities to teachers
Other government departments and non-government organisations (to support life-wide learning)	<ul style="list-style-type: none"> ⇒ Provide more services for the school sector ⇒ Provide opportunities for teacher development in the field ⇒ Provide students with appropriate learning experiences
Publishers	<ul style="list-style-type: none"> ⇒ Follow the new curriculum guidelines for textbook writing ⇒ Provide more quality reading and learning materials

Conclusion

The measures and resources needed to support schools and teachers are more diversified than before and serve a range of purposes. It is important for the users (i.e. schools and teachers) to judge their own needs in areas which can have effects on promoting the independent learning capabilities of students.