Chief Executive's Award for Teaching Excellence (2017/2018)
Excellence Indicators for Teaching Practices for the
<u>Technology Education Key Learning Area</u>

Foreword

The *Excellence Indicators for Teaching Practices for the Technology Education Key Learning Area* are compiled for use as reference in assessing nominations for the Chief Executive's Award for Teaching Excellence (CEATE) (2017/2018).

In drafting the Indicators, we have consulted a number of references, including curriculum documents (see References on page 12).   The Indicators have been formulated and structured in a way that reflects the complexities of teachers' work and the diverse nature of teachers' competencies.

For the purposes of the CEATE, teaching excellence means teaching practices that are –

(i)   outstanding and/or innovative and proven to be effective in enhancing students' motivation and/or in helping students achieve the desired learning outcomes; or

creatively adapted from exemplary teaching practices elsewhere to suit the local (i.e. school-based and/or student-based) context, with proven effectiveness in enhancing students' learning outcomes;

(ii)   based on a coherent conceptual framework, showing reflective practices;

(iii)   inspiring and can be shared with colleagues to improve the quality of education; and

(iv)   instrumental in achieving the learning targets of the Technology Education Key Learning Area (KLA)(i.e. developing technological literacy in students through the cultivation of technological capability, technological understanding and technological awareness to deal with the challenges of the future).

The Indicators fall within four domains, namely, (1) Professional Competence, (2) Student Development, (3) Professionalism and Commitment to the Community, and (4) School Development. The first two domains focus on recognising teaching excellence and the other two on fostering teachers' professional development and building a culture of teaching excellence.

The Indicators are to be used only as a framework for recognising excellent teaching practices; they are not intended to prescribe a rigid model of excellence for every teacher. The examples of excellence cited for each indicator are provided for illustration only and should not be regarded as a checklist. We hope that the Indicators will not only serve as an assessment tool, but may also highlight the qualities of an accomplished teacher in the area of Technology Education, so as to motivate teachers to pursue professional excellence.

All awardees must possess the essential qualities of a professional teacher, such as professionalism and loving concern for students. Each nomination will be assessed according to the four domains mentioned above by adopting a **holistic approach** based on professional knowledge and judgment. However, as the focus of CEATE is on learning and teaching, we are looking for exemplary and effective teaching practices that are inspiring and can be shared with peers. In assessing group nominations, we will also consider the effectiveness of teamwork as measured by the contribution of each group member, interactions among group members, and how the concerted efforts of group members have contributed to the desired outcomes.

Assessment Working Group
Chief Executive's Award for Teaching Excellence (2017/2018)
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Excellence Indicators for Teaching Practices for the Technology Education Key Learning Area

1. Professional Competence Domain

Area	Performance Indicator	Examples of Excellence
Curriculum	1.1 Curriculum Design and Organisation	The teacher is able to: • plan and develop a broad, balanced, systematic and flexible school-based curriculum by making appropriate adaptation to the central curriculum of Technology Education, with a view to developing technological literacy in students through the cultivation of technological capability, technological understanding and technological awareness; • align himself/herself with new educational trends, deliver an open, flexible and up-to-date technology education curriculum and provide students with equal access to comprehensive and balanced learning experiences in technology education; • select a combination of modules covering different learning elements (including core and extension learning elements), and enhance the vertical and lateral coherence of the curriculum, taking into consideration the school's strength, including its teaching staff, available equipment and lesson time allocation; • purposefully and meaningfully integrate the learning elements within the Technology Education Key Learning Area (KLA) or across KLAs with a view to connecting the knowledge and skills of different subjects; and change the existing subject-based curriculum to one that dovetails with students' life experiences; • effectively plan and implement STEM[1] education, strengthen students' abilities to integrate and apply knowledge and skills (including "hands-on" skills), having regard to students' needs, interests and abilities, as well as teachers' expertise and the school context; • help students understand technology in the context of daily life, apply generic skills in an ever-changing

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[1] STEM is an acronym combining the first letters of four academic disciplines, namely Science, Technology, Engineering and Mathematics. In the local curriculum context, STEM education is promoted through Science, Technology and Mathematics Education KLAs.

Area	Performance Indicator	Examples of Excellence
		environment, and effectively develop their creativity, critical thinking skills, communication skills and problem-solving skills so that they can tackle real problems in life; • take a diversified approach to curriculum design and purposefully plan life-wide learning activities to capture the interest of different students and cater for their diversity; and promote learning in authentic situations and real practices by visiting various organisations or participating in technology-related competitions, with a view to enhancing students' understanding of the application of technology in daily life; and • flexibly incorporate the Four Key Tasks into different learning activities under the curriculum for Technology Education KLA and the cross-KLA curricula to help students develop independent learning capabilities, and prepare them for life-long learning.
	1.2 Curriculum Management	The teacher is able to: • take a leadership role in working closely with panel members and/or other KLA teachers to devise a holistic plan for the development of school-based curriculum; • make flexible use of lesson time and organise different in-class and out-of-class learning activities to ensure vertical and lateral coherence among different subjects under Technology Education KLA; • establish an effective Planning, Implementation and Evaluation mechanism to monitor curriculum implementation and evaluate effectiveness, and take forward concrete follow-up measures with a view to reviewing and refining the curriculum in a timely manner; and • make flexible and effective use of various technology education resources to cater for learner diversity, with a view to facilitating students' learning through practice and exploiting their potential in technology.
Teaching	1.3 Strategies and Skills	The teacher is able to: • select balanced learning elements from the curricula under Technology Education KLA, and meticulously design meaningful and effective teaching and learning process that emphasises both theory and practice, with a view to developing the technological literacy of students;

Area	Performance Indicator	Examples of Excellence
		- master appropriate and diversified teaching strategies and techniques to create a harmonious and inspiring atmosphere of learning, so as to effectively stimulate students' curiosity for and interest in technology; - adopt learner-centred pedagogies to allow students to integrate and apply technological knowledge and skills in problem solving and create inventions through "hands-on" and "minds-on" activities; - create meaningful learning contexts that enable students to apply knowledge, skills and experiences with specific purposes in mind; - provide a flexible schedule for learning progress to cater for learner diversity and allow students with varying levels of competence to progress at their own pace; - use information technology to promote interactive learning, thus allowing students to grasp knowledge and skills and access the extensive network of information through application of different media, such as drawing, pictures, videos, or a combination of media, and enabling them to explore different learning resources; - flexibly adopt the e-learning approach to help students learn by experiencing; and use electronic media, including the use of digital resources and communication tools to provide instant feedback for students and promote self-directed learning; - enable students to construct and connect knowledge, concepts and skills under the Technology Education KLA and/or across different KLAs (such as STEM education) through project learning for the purposes of consolidated learning and integrated application; - use the language of instruction skillfully and accurately to give clear instructions and demonstrations and deepen students' understanding of the subject matter; and ask questions at different levels to prompt students to think and to encourage them to learn through enquiry; and - demonstrate good classroom practices, pay attention to and care about students' learning needs and performance, and guide students' learning in a safe and orderly learning environment.

Area	Performance Indicator	Examples of Excellence
	1.4 Professional Knowledge and Attitudes	The teacher is able to: • grasp thoroughly subject contents and the planning of the Technology Education curriculum, master related pedagogical and assessment skills, and make effective use of such knowledge and skills in teaching; • keep abreast of technological developments, including the implications and applications of new technologies, serve as a role model for students by demonstrating the skills and attitudes required for exploring new technologies, and continuously update and enrich their teaching; • take a leadership role in actively promoting professional exchange, sharing, reflection and reviews among teachers in the Technology Education KLA; and make contributions to the profession by connecting subjects and learning elements within the KLA, and actively reflecting on and updating subject knowledge; • take on multiple roles, including that of a knowledge imparter, information provider, learning facilitator, collaborator, counsellor, assessor and consultant during the learning and teaching process, so as to nurture students as self-directed life-long learners; and • demonstrate a genuine commitment to teaching with a strong sense of responsibility; care about and respect students' uniqueness; have appropriate expectations of their students, and recognise and value their potential and achievements; and build trust and rapport with students.

Area	Performance Indicator	Examples of Excellence
Performance Assessment	1.5 Assessment Planning and Use of Information	The teacher is able to: ● establish a purposeful and holistic assessment mechanism to assess students' performance in the aspects of knowledge, skills and attitudes, with a view to aligning with curriculum planning and assessment theory, and catering for learner diversity; ● utilise various assessment modes and tools to help students identify their learning problems through provision of feedback and seek improvements in teaching; ● incorporate assessment into the learning process and ensure that assessment can reflect all the important learning components, including knowledge, concepts, processes, awareness, generic skills, values and attitudes; and ● record assessment results systematically and make effective use of these results to monitor students' progress, with a view to informing pedagogical planning and design, and charting the direction of learning.

2. Student Development Domain

Area	Performance Indicator	Examples of Excellence
Student Development	2.1 Values and Attitudes	The teacher is able to: • set a role model for students, help them realise the importance and development of technology, and the positive and negative impacts that technologies may have on humanity and the environment, with a view to cultivating positive values and attitudes in them; • introduce different contexts to related topics and appropriate learning and teaching activities to help students perceive an issue from multiple perspectives, and consider and apply positive values and attitudes when solving problems and tackling the challenges brought by today's changing world; • infuse information literacy into the Technology Education KLA to provide an authentic context to help students use information ethically and establish themselves as informed and responsible citizens; • enhance students' interest in learning and develop their self-directed learning attitude, with a view to preparing them for lifelong learning; • develop students' curiosity and inquisitiveness as they learn about technology through classroom and life-wide learning activities, so that they can find solutions that benefit the community; • help students understand the qualities of innovation and entrepreneurial spirit, acquire safe and healthy work habits, and develop a healthy lifestyle and financial literacy; and • encourage students to keep an open mind, respect others' views, and collaborate and share ideas with others readily.
	2.2 Knowledge and Skills	The teacher is able to: • provide opportunities for students to have a good grasp of technological knowledge, technological processes and the impact of technologies, and provide them with timely updates to keep them abreast of the rapid changes in technological development; • strengthen students' ability to integrate and apply knowledge and skills; nurture their creativity, collaboration and problem-solving skills as required in a world with rapid technological development; and

Area	Performance Indicator	Examples of Excellence
		foster their innovation and entrepreneurial spirit;
		• include authentic problems as the context of study to inspire students' invention of products, services or systems using resources in their hands-on and minds-on attempts, and transfer their skills to other domains with a view to improving people's daily lives;
		• encourage students to use appropriate learning strategies and various resources to achieve their learning goals, such as using information technology to gather and sort information;
		• help students master reading strategies, and understand the language features and usage specific to the Technology Education KLA so that they can convey their innovative ideas to others effectively; and
		• help students build a solid foundation of knowledge, arouse their interests in technology, foster their creativity and entrepreneurial spirit by promoting STEM education, with a view to better preparing them for further studies and employment.

3. Professionalism and Commitment to the Community Domain

Area	Performance Indicator	Examples of Excellence
Professionalism and Commitment to the Community	3.1 Contribution to the Profession and the Community	The teacher is able to: • demonstrate a good understanding of the latest development in technology education and education policy, and improve and promote technology education by effectively incorporating new ideas and teaching practices that are in line with the prevailing education or learning theories; • serve as a role model in encouraging teachers to embrace reforms proactively and establish a culture of striving for continuous self-improvement; • actively participate in internal and external professional sharing activities and build a learning community; • make contributions to society and the teaching profession, and actively participate in community services or voluntary work; • produce exemplary teaching materials, actively take part in educational research to try out teaching practices, or make good use of various channels, such as publications, to demonstrate teaching practices with proven effectiveness; and • enhance the professional capacity of teachers and promote inter-school co-operation and professional exchange through professional sharing with peers in related KLAs and academics/experts in STEM-related fields.

4. School Development Domain

Area	Performance Indicator	Examples of Excellence
School Development	4.1 Support to School Development	The teacher is able to: • lead and help peers in realising the school's vision and mission, and jointly promote the continuous professional development of technology education in school, taking into account the latest changes in the prevailing education policies and their impacts on school development; • promote a collaboration and sharing culture among teachers in the school, and assist in building a professional learning community for peers to share good teaching practices and experiences with a view to improving the learning and teaching in the Technology Education KLA; • assist in continuous school development using the ideas, products and systems developed from the teaching and learning process of technology education; • actively support home-school collaboration, and form partnership and build trust with parents with a view to creating a collaborative school environment; • make good use of external resources by sharing and co-operating with local and non-local professional bodies, tertiary institutions, government and non-government organisations, with a view to enhancing community collaboration and students' learning; and • build on the strengths of the school's past experiences and other conducive factors to promote STEM education and share good teaching practices with other teachers through various channels, such as showcasing the fruits of STEM education, and discussing how integrated and cross-disciplinary learning experiences can be offered through collaboration.

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