

## Information Sheet

### Exploratory Learning in Kindergarten

Children like to explore and are active learners. For children from birth to 5-6 years old, their learning is closely related to their growth and developmental patterns. Inappropriate learning content or strategies will adversely affect the learning effectiveness, learning interest and motivation of children. When schools and teachers are planning and designing kindergarten curriculum, due consideration should be given to “what to learn” and “how to learn” for children at such a young age. “What to learn” refers to the learning content, while “how to learn” is the appropriate curriculum planning and learning strategies that should be adopted.

The *Kindergarten Education Curriculum Guide* provides schools with the guiding principles of curriculum design and planning:

**(1) Catering for the growth and developmental needs of children**

**(2) Providing real-life, sensory and interesting learning experiences**

Based on the above-mentioned guiding principles, the learning activities in kindergartens **should provide children with opportunities for free exploration, cater for children’s development and interests, make good use of real-life themes and let children appeal to multiple senses to gain firsthand experiences and knowledge related to their lives.**

The kindergarten education curriculum adopts the principle of promoting comprehensive and balanced development in children covering five developmental objectives, namely “Moral Development”, “Cognitive and Language Development”, “Physical Development”, “Affective and Social Development” and “Aesthetic Development”. The five developmental objectives are to be achieved through six learning areas namely, “Physical Fitness and Health”, “Language”, “Early Childhood Mathematics”, “Nature and Living”, “Self and Society” and “Arts and Creativity”. Real-life learning themes that are closely related to children’s daily life experiences, cognitive abilities and interests can connect the content of the six learning areas **to provide children with integrated and comprehensive learning experiences**, thereby promoting children to learn happily.

## Examples of Exploratory Learning in Kindergartens:



Learning Areas	Learning Objectives	Examples of Learning Expectations
Physical Fitness and Health	<b>To use senses to explore the surroundings</b> , raise awareness of health and safety, and develop self-protection abilities	<ul style="list-style-type: none"> <li>Identify the functions of the five senses, i.e. sight, hearing, taste, smell and touch, and improve knowledge of the body</li> </ul>
Early Childhood Mathematics	To be aware of the relationship between mathematics and life, and <b>gradually build up the ability to think and solve daily life problems by using mathematics</b>	<ul style="list-style-type: none"> <li>Explore the properties of quantity, shapes and space (e.g. front, back, left, right) by various methods such as observation and touching</li> </ul>
Nature and Living	<b>To develop curiosity</b> about the environment and phenomena around and <b>to enjoy exploring</b> the surroundings and nature	<ul style="list-style-type: none"> <li>Be curious about natural phenomena and display a desire for exploration</li> <li>Take the initiative in understanding their surroundings and be willing to try out technological products</li> <li>Develop an attitude of inquisitiveness and truth-seeking</li> </ul>
	To cultivate an objective and open-minded attitude; <b>to acquire basic exploratory skills</b> through observation, questioning and making assumptions;	<ul style="list-style-type: none"> <li>Be able to observe by using the senses of sight, hearing, taste, smell and touch</li> <li>Be capable of using observation, prediction and</li> </ul>

	and to <b>develop abilities to solve problems</b>	<p>comparison to explore and understand things in their environment</p> <ul style="list-style-type: none"> <li>• Be able to express findings in simple language and share thoughts of things discovered</li> </ul>
	To <b>appreciate, respect and care for nature</b> and live an environmentally-friendly life	<ul style="list-style-type: none"> <li>• Care for and appreciate the beauty of nature, animals and plants</li> <li>• Develop attitudes and habits of protecting the environment and cherishing resources</li> <li>• Appreciate that technology improves life and know how to make good use of technology</li> </ul>
Arts and Creativity	To <b>develop creativity through active exploration</b> in art activities	<ul style="list-style-type: none"> <li>• Explore timbre and sound effects through various media and ways</li> <li>• Create and explore visual arts through using various materials and ways</li> </ul>
<p>The above information is excerpted from the <i>Kindergarten Education Curriculum Guide</i>:  <a href="http://www.edb.gov.hk/attachment/en/curriculum-development/major-level-of-edu/preprimary/ENG_KGECG_2017.pdf">www.edb.gov.hk/attachment/en/curriculum-development/major-level-of-edu/preprimary/ENG_KGECG_2017.pdf</a></p>		

## Support Measures:

The Education Bureau continues to adopt diversified measures to support kindergartens in developing and sustaining young children’s curiosity and exploratory spirit, which include explaining the rationale of the curriculum, learning objectives, examples of learning expectations, and pedagogical approach of each learning area in the *Kindergarten Education Curriculum Guide*. In addition, the Education Bureau provides the Suggested Book List on the theme of “Nature and Living” and uploaded to the Education Bureau website for schools’ reference. Every year, a series of teacher training programmes on curriculum development is organised to enhance the professional capabilities of kindergarten principals and teachers in designing activities with exploratory elements and multi-sensory experiences for young children to learn through exploration, and cultivate their interest in learning as well as an inquisitive mind. Teachers may make reference to the following information to design appropriate exploratory activities for young children.

### Teacher Reference Material:

Item	Reference Materials	Link to the Website	QR Code
Curriculum Document	Kindergarten Education Curriculum Guide	<a href="http://www.edb.gov.hk/attachme nt/en/curriculum-development/major-level-of-edu/preprimary/ENG_KG ECG_2017.pdf">www.edb.gov.hk/attachme nt/en/curriculum-development/major-level-of-edu/preprimary/ENG_KG ECG_2017.pdf</a>	
Theme-based Reading	Suggested Book List for Kindergartens  Theme: Nature and Living	<a href="https://www.edb.gov.hk/attachme nt/tc/curriculum-development/major-level-of-edu/preprimary/theme-based-reading/Nature%20and%20Living_KGs.pdf">https://www.edb.gov.hk/attachme nt/tc/curriculum-development/major-level-of-edu/preprimary/theme-based-reading/Nature%20and%20Living_KGs.pdf</a>	

## Myth:

Some people possess misconceptions about the implementation of exploratory activities in kindergartens, for instance, whether STEAM education could be carried out in kindergartens. The major myths are summarised as follows:

<b>Myths (1)</b>	<b>The government has been committed to promoting STEAM education in primary and secondary schools in recent years, why not start promoting it in kindergartens?</b>
<b>Reality</b>	<p>STEAM education in Hong Kong is implemented in primary and secondary schools through Science, Technology, Mathematics and Arts curricula, with “hands-on and minds-on” learning activities inside and outside the classroom in subjects and cross-disciplinary approach.</p> <p>Different from primary and secondary education, <b>kindergarten curriculum is related to children’s life experiences, cognition and interest, and real-life themes are adopted to connect the content of the six learning areas in an integrated approach to provide children with comprehensive learning experience.</b> Kindergarten education attaches great importance to cultivating children’s interest in learning, proper values and attitudes, so as to improve their self-confidence and self-care ability. In terms of knowledge learning, the focus is on building up children’s basic knowledge and concepts.</p> <p>Systematic subject-based learning begins at the primary level. STEAM education focuses on strengthening students’ abilities to integrate and apply knowledge and skills, whereas <b>kindergarten education focuses on cultivating children’s interest in learning, inquisitive mind and exploratory spirit.</b></p>
<b>Myth (2)</b>	<b>If STEAM education is not implemented at the kindergarten level, will children be ready for the primary school curriculum?</b>
<b>Reality</b>	The kindergartens adopt an integrated approach to

	<p>design curriculum, focusing on providing opportunities for children to explore freely, cultivating their curiosity and exploratory spirit. Through diversified learning activities, kindergarten education establishes a good foundation for primary level learning, including helping children grasp some mathematical concepts, develop problem-solving skills, understand basic health and safety knowledge, coordinate body movements, as well as develop preliminary understanding of some scientific concepts from observing various natural phenomena, thereby cultivating an objective and open-minded attitude and developing their capabilities of using observation, prediction and comparison for exploring and understanding their environment. <b>Through a variety of activities, children will also learn to communicate and cooperate with others, and express ideas and creativity in different ways. These learning experiences will lay an important foundation for STEAM education at primary level.</b> Therefore, kindergartens should not arrange activities that do not align with children’s learning needs and development, such as coding, in order not to dampen children’s interest in learning by introducing the primary curriculum content in advance.</p>
<b>Myth (3)</b>	<p><b>With the rapid development of science and technology, is it appropriate to promote e-learning, using devices such as tablet computers or robots, or teaching young children coding?</b></p>
<b>Reality</b>	<p>For kindergarten children, using electronic devices such as tablet computers and robots for e-learning in games and activities in schools will reduce their opportunities of using different senses to explore in the real environment and also limit their interactions with teachers and peers. <b>Prolonged exposure to electronic screen products will affect children’s social communication and increase potential health risks easily, which is harmful to children’s physical and psychological development.</b> In addition, schools should not arrange activities that do not align with children’s learning needs and development, such as coding, in order not to dampen children’s interest in learning by introducing the primary curriculum</p>

	<p><b>content in advance.</b></p> <p>Schools should not promote e-learning at kindergarten stage. Information technology could not replace learning activities or games. Furthermore, <b>over emphasis on teaching with technology will deprive children’s learning opportunities through exposure to the real world.</b> Schools should be prudent in introducing information technology equipment to support teaching. When using electronic learning media, teachers should consider whether the activity design is appropriate or whether the content ties in with the development and learning needs of children. Proper attitudes and habits in using electronic products should also be developed.</p>
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