

HONG KONG



PISA Rankings

2006			2003			2000		
MATH	SCIENCE	READING	MATH	SCIENCE	READING	MATH	SCIENCE	READING
4	2	3	1	3	10	1	3	6*

Population size:	6,977,700
Student enrollment:	1,018,100
U.S. states with similar statistics:	Arizona, Indiana, and Washington

General description of K–12 education:

Beginning at approximately age six, Hong Kong requires six years of primary school education and three years of junior secondary education. The school year is 190 days long. Hong Kong has a national curriculum it calls the National Curriculum Framework. Hong Kong administers the Territory-wide System Assessment (TSA) at the end of the third primary year, sixth primary year, and third secondary year to evaluate student competency in Chinese language, English language, and math. The TSA is designed to help schools modify school standards to better meet student needs. In addition, secondary school students complete the Hong Kong Certificate of Education Examination and may complete the Hong Kong Advanced Level Examination to attend tertiary-level education.

Required subjects:

Chinese language, English language, math, personal/social/humanities (including Chinese history, economics, geography, ethics/religious studies, government, social studies, and civics), science, technology, arts, and physical education.

EXCERPTS

The documents included for Hong Kong are excerpts from the national curriculum framework, obtained from the Education Bureau of the Government of Hong Kong SAR:

- Science—grades 4–6
- Visual Arts—grades 4–6

* Test taken in 2002

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Excerpts

NATIONAL CURRICULUM FRAMEWORK

Science • Grades 4–6

Science and Technology in Everyday Life

This strand aims at arousing students' curiosity and interest in science and technology through hands-on and minds-on activities. Students are expected to have an increased awareness of the natural and human world, keen interest in observing their surroundings and to acquire a basic understanding of some simple natural phenomena. Under the guidance of teachers, students are expected to relate their experience of science and technology to everyday contexts. They are also expected to develop sensitivity to safety issues related to science and technology in everyday life, as well as treating the environment with care.

CORE ELEMENTS

- Planning and conducting simple investigations
- Investigating some simple patterns and phenomena related to light, sound, electricity, movement and energy
- Use of some materials and their related consequences on human and environment
- Efficient transfer of energy and the interaction between energy and materials
- The patterns of changes / phenomena observable on Earth caused by movement of the Earth and the Moon around the Sun
- The wonder of the Universe
- Contributions of space exploration to everyday life
- Functional and aesthetic requirements in various processes in technology learning activities
- The design cycle and its application in making models
- The application and effects of technological and scientific advances in daily life
- Technological advances leading to the detailed observation of distant big objects and very small objects
- The trends in scientific and technological advances
- Safety and personal responsibility in using science and technology
- Awareness that the usage of technology might be different in other cultures

SUGGESTIONS FOR EXTENSION

- Schools may choose to provide more life-wide learning opportunities for students, e.g. they might take part in science competitions, visit resource-based learning

centers such as laboratories in secondary schools or institutes.

- Further exploration on “famous scientists and inventors and their contributions” can also be introduced in addition to information from textbooks on the subject, e.g. students may select examples of scientists/inventors and study about their discoveries/inventions and their impact on our daily life.
- Schools may also consider extending the depth of study on all or part of the core elements. Schools can get students to undertake the sort of scientific investigation that requires them to make hypotheses, design and carry out experiments, collect and analyze data, make judgments and report results and conclusions.
- Schools can also choose to allow students to study and use the design cycle when engaged in technology learning activities, e.g. rather than asking students to build a tower up to a specific height, teachers can allow students to choose different materials for building the same structure (e.g. tower) or to build different structures with the same material (e.g. straw).

Visual Arts Education • Grades 4–6

The visual arts curriculum has four learning targets:

- Developing creativity and imagination: Through active participation in art appreciation, criticism, and making, students will develop new and different ways to enhance their power of imagination, creative thinking, and presentation skills.
- Developing skills and processes: Students will learn to use visual language, different visual arts forms, and a variety of materials and techniques for visual arts making.
- Cultivating critical responses: As students learn to understand works of visual arts, they acquire the abilities to give critical, informed, and intelligent responses based on well-explored background of information about the artwork, the artist, and just as importantly, with reference to their own experience, training, culture, and personal judgment.
- Understanding arts in context: Students will learn to understand the meaning and value of works of visual arts in their own and other contexts including the art historical, personal, social, cultural, ideological, and political.

DEVELOPING CREATIVITY AND IMAGINATION

<i>Learning Objectives</i>	<i>Examples of Learning Activities</i>
1. Seek, select, and organize information for the purpose of art creation	<ul style="list-style-type: none"> ▪ Collecting images from magazines and making selections to create a surrealist poster ▪ Collecting some special packaging designs and analyzing the artistic features and functions to explore ideas for a design project
2. Use direct observation and various experiences to explore ideas	<ul style="list-style-type: none"> ▪ Observing different facial expressions of oneself in a mirror to explore ideas for a self-portrait painting ▪ Recording human movements in sketches and using various materials to construct forms of movement according to sketches
3. Explore art elements and design principles to express ideas and feelings	<ul style="list-style-type: none"> ▪ Bringing out the center of interest of an artwork by using the principle of contrast ▪ Observing several sculptures, paying special attention to the use of positive and negative spaces so as to stimulate ideas for creating a new sculpture on a theme such as “merging” or “contrast”
4. Explore alternatives by re-composing and by trying different combinations	<ul style="list-style-type: none"> ▪ Using images from magazines and reconstructing them in an order to form a storyline. ▪ Combining different geometrical figures to show human movements and comparing the visual results between different combinations
5. Use sketching to explore a range of possibilities for finishing a piece of work	<ul style="list-style-type: none"> ▪ Using sketches to explore and develop ideas for creating a toy robot ▪ Drawing sketches of puppets of fairy tale characters, considering the choice of materials and the linkages of joints of the puppets
6. Interact with others to develop artistic ideas	<ul style="list-style-type: none"> ▪ Visiting an artist’s studio or an exhibition to inspire with ideas to create a new piece of artwork ▪ Discussing with classmates to stimulate ideas for creating a piece of artwork on a theme such as “Space Emigration” or “The Future Houses”

DEVELOPING SKILLS AND PROCESSES

<i>Learning Objectives</i>	<i>Examples of Learning Activities</i>
1. Create artworks which reflect skills in applying art knowledge, techniques, and processes to express ideas and feelings	<ul style="list-style-type: none"> ▪ Using bright colors to express the visual impact of joy in painting about the celebration of an event ▪ Using color effects to paint a scene to express the feeling of harmony
2. Convey ideas in selected medium	<ul style="list-style-type: none"> ▪ Using clay to create forms to illustrate facial expression ▪ Adapting ideas from some interesting themes in current affairs or daily life expressing them in a four-framed comic
3. Explore and use a variety of art media, tools, and techniques	<ul style="list-style-type: none"> ▪ Exploring and using different materials and techniques to make a lantern ▪ Exploring the techniques and tools making a wire sculpture to form human figures in motion
4. Understand and compare knowledge and skills of visual arts in relation to other disciplines	<ul style="list-style-type: none"> ▪ Linking up the concept of mathematical patterning with the use of gradation by M.C. Escher in his printmaking to create a patterning piece ▪ Expressing the imagery in a poem by painting, and comparing the media of expression between poetry and painting

CULTIVATING CRITICAL RESPONSES

<i>Learning Objectives</i>	<i>Examples of Learning Activities</i>
1. Use art terminology to describe and analyze artworks	<ul style="list-style-type: none"> ▪ Describing and analyzing the use of color, structure, and contents of the Chinese New Year Print illustrating the New Year woodblock print ▪ Describing the form and analyzing the relationship between the subject matter and the use of material of the work “Crab#4” by local sculptor ZHANG Yi
2. Interpret visual forms based on techniques, meaning, and art elements and principles of design	<ul style="list-style-type: none"> ▪ Studying the sculptures by Henry Moore to understand the concepts of “negative shapes” and “positive shapes” ▪ Appreciating the painting of “Shrimp” by QI Baishi and understanding how the artist uses Chinese painting techniques to create the shapes of objects with ink
3. Express and give reasons for their opinions/preferences	<ul style="list-style-type: none"> ▪ Expressing personal opinions, with reasons, on the composition of a popular comic and the form of its characters ▪ Expressing opinions on “Guernica” by Picasso after understanding the background of the work
4. Apply criteria to assess artworks	<ul style="list-style-type: none"> ▪ Assessing a poster design based on its effectiveness in terms of communication and artistic qualities ▪ Evaluating an artwork according to the appropriateness of the selection of material for the expression of a particular theme

UNDERSTANDING ART IN CONTEXT

<i>Learning Objectives</i>	<i>Examples of Learning Activities</i>
1. Recognize art heritage and its role in society	<ul style="list-style-type: none"> ▪ Understanding the scenery and people illustrated in the paintings or sketches by Hong Kong artists ▪ Understanding Chinese/Western culture as reflected in temples/churches in Hong Kong
2. Recognize artworks with distinctive uses of local materials and local environmental features	<ul style="list-style-type: none"> ▪ Exploring the relationship between local sculptures and public spaces ▪ Analyzing and discussing the relationship between folk-tales of traditional Southern and Northern “lion-head” designs and folkloric customs
3. Recognize the fact that artworks serve different purposes in different cultural contexts, past and present	<ul style="list-style-type: none"> ▪ Recognizing the functions of Christmas cards in relation to Western culture ▪ Recognizing the relationship between the forms of Chinese pottery and their functions