

Annex 2

The Requirements of Basic Academic Attainments for Primary General Studies

1. Basic Rationale

We live in a natural and social environment. Learning to observe, explore and understand natural and social phenomena is conducive to improving our life, broadening our vision of the world, helping us adapt to social development and coexist with the nature in harmony. General Studies curriculum aims to provide students with overall, rather than fragmented, learning experience, enabling them to understand the people, things and issues related to life progressively from near to far, helping them understand individuals, society and nature, as well as the relationships among them, so that students can gain the basic knowledge of natural science, humanities and society as well as diverse learning skills, basically cultivating their humanistic quality and scientific literacy, thus laying a foundation for their whole-person development and lifelong learning. To this end, the curriculum of primary General Studies shall comply with the following basic rationale:

1.1 Based on life and development needs, focus on students' balanced and all-round development

Humans' quest for knowledge derives from the needs of life and future development. Therefore, General Studies curriculum should lay stress on guiding students through learning from life experience. Through learning topics relating to life, students are enabled to understand the relationship between individuals, society and the natural environment, acquire the knowledge and skills needed for living a life and future development, cultivate correct values and attitudes in students, promote their balanced and all-round development.

1.2 Focus on the relation between humans and social environment, pass down historical traditions and social culture, increase national security awareness

The curriculum focuses on establishing a link between students and the social environment, helping them understand the traditions and status quo of the local society as well as learn about the current social issues in China and the world, fostering their affection for Macao and the motherland, as well as the spirit of humanistic care. Through understanding the common knowledge of national security, students can be inspired to have a sense of responsibility in safeguarding national security. By learning Chinese and foreign history and culture, it helps foster students' awareness of respecting as well as inheriting history and excellent traditional culture, enable them to have a sense of mission and belonging to the country.

1.3 Advocate harmony between humans and the natural environment, develop students' spirit of inquiry and innovation

The curriculum places emphasis on the development trend in international science education and the harmonious relationship between humans and the natural environment. It allows students to care about the local, regional and global environmental issues, develop scientific inquiry abilities and literacy, as well as awareness and habits of protecting the environment and cherishing resources. It helps students form a preliminary concept of sustainable development. Through a variety of learning activities, the curriculum aims to arouse students' curiosity about the natural environment and the scientific world, as well as foster the spirit of exploration among them, stimulate their imagination and creativity.

1.4 Place emphasis on diverse and integrated learning experience, develop students' lifelong learning ability

The curriculum advocates diverse and integrated learning experience. By combining different kinds of learning experience, students' ability to integrate knowledge can be enhanced. A model of interdisciplinary education is adopted to strengthen students' comprehensive application and practical abilities, as well as exploit students' innovative potential. The curriculum should provide diverse learning context and guide students on how to make good use of different learning resources and methods, so as to help them basically master the ability to obtain, organise and analyse information, develop the basic ability and attitude for lifelong learning.

2. Curriculum Objectives

- 2.1 Enable students to acquire the basic knowledge of health and hygiene, develop healthy habits.
- 2.2 Help students develop a correct concept of sex, learn to protect themselves and respect others.
- 2.3 Enable students to understand the traditions and current situation of the community in which they live, foster the spirit of caring about and serving the society among students.
- 2.4 Enable students to understand the history and social culture of Macao and China, know the excellent traditional Chinese culture, and respect cultural differences.
- 2.5 Teach students to care about the social development of Macao, China and the world, develop their critical thinking on social issues, foster national security awareness among them.
- 2.6 Arouse students' curiosity about and interest in natural and man-made world, preliminarily foster their spirit of scientific inquiry and technological innovation.
- 2.7 Enable students to acquire the natural and scientific knowledge related to life, help them gradually develop the ability of application and practice of the interdisciplinary knowledge, as well as problem-solving skills.
- 2.8 Enable students to care about the environmental issues faced by humans, help them develop habits of saving resources and protecting the environment.
- 2.9 Teach students to pay attention to the rapid development of science and technology in China, understand its impact on human life, social development and the natural environment.
- 2.10 Cultivate students to have a basic understanding of the inquiry methods in natural sciences and social sciences, equip them with the ability to obtain, organise and analyse information.

3. Specific Content of the Requirements of Basic Academic Attainments for Each Learning Strand

Explanation of coding:

- (1) The capital letter represents a learning strand: A – “Healthy Life”, B – “Humanistic Society and Life”, C – “Natural Environment and Life”, D – “Science and Life”;
- (2) The first number following the capital letter represents a grade level cluster:
1 - P1 to P3, or 2 - P4 to P6;
- (3) The second number following the capital letter represents a basic academic attainment requirement in that learning strand.

Learning Strand A: Healthy Life

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| A-1-1 | Be able to tell that birth, aging, sickness and death are the inevitable processes of life. |
| A-1-2 | Be able to tell the main parts of the human body and their functions, know how to protect themselves, not to harm others' body. |
| A-1-3 | Be able to distinguish the physiological differences between the sexes, and respect physical privacy. |
| A-1-4 | Be able to follow an adequate diet and develop healthy eating habits based on the principle of a balanced diet and their own development conditions. |
| A-1-5 | Be able to list the common methods of keeping and handling food, and study the impact of these methods on food safety and nutritional value. |
| A-1-6 | Be able to tell the impact of environmental hygiene on health, and know how to maintain personal and environmental hygiene. |
| A-1-7 | Be able to tell the common childhood illnesses and the basic ways to prevent these illnesses, as well as have the awareness of seeking early treatment. |
| A-1-8 | Have safety awareness in daily life. |
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| A-2-1 | Be able to tell the structure and function of the main systems of human body. |
| A-2-2 | Be able to explain the physical and mental changes in boys and girls at puberty, accept their own changes and respect others' changes in the process of growth. |
| A-2-3 | Be able to acquire sexual knowledge through proper channels, and be willing to express their views on sex to their elders. |
| A-2-4 | Be able to describe the process of giving birth to a child, and cherish life. |
| A-2-5 | Be able to tell the adverse consequences of sexual behaviour of minors. |
| A-2-6 | Be able to select healthy food and safe daily necessities according to the |

- information on the product label.
- A-2-7 Be able to tell the nutritional value of different types of food, design a simple and healthy menu.
- A-2-8 Be able to collect, organise and analyse information, share and discuss topics of healthy life with classmates.
- A-2-9 Be able to tell the hazards of common infectious diseases and public health emergencies, propose prevention and response methods.
- A-2-10 Be able to identify the potential hazards in the environment, have the abilities for seeking help and self-help.

Learning Strand B: Humanistic Society and Life

- B-1-1 Understand the meaning of currency, and know that currency will evolve with the development of the times.
- B-1-2 Be able to identify the major industries and common occupations in Macao.
- B-1-3 Be able to know their own roles and responsibilities as members of different social groups, increase the sense of identity and belonging to the mother country and Macao.
- B-1-4 Be able to name the common community facilities and the services provided.
- B-1-5 Be able to learn by using resources in the community, and protect public resources.
- B-1-6 Be able to list the common means of transportation, and tell the functions of transportation in the society.
- B-1-7 Be able to describe Macao as a melting pot of Eastern and Western cultures, be willing to celebrate festivals and respect different cultures.
- B-1-8 Be able to give examples to illustrate China's long history and culture, enjoy reading historical stories and be interested in history and culture.
- B-1-9 Be able to tell that there are rich and diverse national cultures in the world, respect different customs and social habits.
- B-2-1 Be able to pay attention to social issues, and be willing to discuss the issues with others.
- B-2-2 Be interested in investigating social phenomena in daily life, and conduct basic social research.
- B-2-3 Be able to explore the impact of Macao's economic and industrial development on Macao residents' life.
- B-2-4 Be able to give examples to illustrate the close connection between Macao

and its neighbouring regions in terms of economic development and residents' daily lives in Macao.

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| B-2-5 | Be able to tell the geographical location, geographical features and territory of China. Understand the importance of protecting the territorial integrity of the country. |
| B-2-6 | Be able to raise the major social issues in China and the world, and discuss the issues with others. |
- B-2-7 Be able to explore the impact of social media on the lives of young people, pay attention to cybercrime issues and ensure cyber security.
- B-2-8 Be able to identify the causes for food shortages, develop the attitude and habit of cherishing food.
- B-2-9 Be able to tell the rights and interests of consumers.
- B-2-10 Be able to tell that Macao played an intermediary role in cultural exchange between East and West in early times, and that Macao has made outstanding contributions to the exchange and development of Eastern and Western cultures.
- B-2-11 Be able to collect, organise and analyse information, discuss and share views on the topic of the Historic Centre of Macao with classmates.
- B-2-12 Be able to appreciate and protect cultural heritage.
- B-2-13 Be able to name the famous historical figures who once lived in Macao, and acknowledge their contribution to Macao, China and the world.
- B-2-14 Be able to tell the major cultural events in Macao, and enjoy participating in cultural activities.
- B-2-15 Be able to study the process and influence of the Portuguese settling in and occupying Macao, by reading a variety of historical materials.
- B-2-16 Be able to describe the process and significance of China's resuming the exercise of sovereignty over Macao.
- B-2-17 Have a basic understanding of the origin of the Basic Law and the content of "One country, Two systems", realise the importance of defending national sovereignty.
- B-2-18 Have a basic knowledge of national security, and realise that personal life is closely related to national security.
- B-2-19 Be able to understand and appreciate the traditional virtues of the Chinese nation and the connotation of excellent traditional culture.
- B-2-20 Be able to name the Four Great Inventions of ancient China, and their contribution to the development of human civilisation.
- B-2-21 Be able to learn how China is influenced by the important historical figures and events during different periods in Chinese history.

- B-2-22 Be able to tell the contribution of the four ancient civilisations of the world to the development of human civilisation.
- B-2-23 Be able to name the major religions in the world, and respect different religious beliefs.

Learning Strand C: Natural Environment and Life

- C-1-1 Be able to distinguish living and non-living things.
- C-1-2 Be able to identify the morphological characteristics and habitats of common animals.
- C-1-3 Be able to tell the important parts of a plant and their functions.
- C-1-4 Learn about that water, air, sunlight and nutrients are essential for plant growth by planting a plant.
- C-1-5 Know that animals need water, food and air to grow.
- C-1-6 Be able to love animals and plants, and cherish life.
- C-1-7 Be able to make an appropriate response to weather forecast.
- C-1-8 Be able to tell that the length of daytime and nighttime varies from season to season, and describe Macao's climate in four different seasons.
- C-1-9 Be able to tell the methods for prevention of common natural disasters such as rainstorms and typhoons.
- C-1-10 Be able to notice that the sun rises in the east and sets in the west, and be able to tell the relationship between the sun and life.
- C-1-11 Be able to name commonly used energy sources in daily life, and have energy-saving habit.
- C-1-12 Be able to describe the distribution and application of freshwater resources.
- C-1-13 Be able to tell the sources of the drinking water in Macao, and have the habit of saving water.
- C-1-14 Be able to tell that the earth's resources are limited, and form the habit of recycling and reusing resources.
- C-2-1 Be able to compare the similarities and differences between the structures of common vertebrates and invertebrates.
- C-2-2 Be able to give examples to illustrate the main methods and pathways of reproduction of plants.
- C-2-3 Be able to tell the methods and characteristics of reproduction of viviparous animals and oviparous animals.
- C-2-4 Be able to give examples to illustrate the common ecosystems, and know that ecosystems are composed of living and non-living environments.
- C-2-5 Be able to give examples to illustrate the structural adaptations of plants.

- C-2-6 Be able to give examples to illustrate the morphological characteristics and lifestyle of animals that help them adapt to natural environments.
- C-2-7 Be able to explain the relationship between photosynthesis and plant growth.
- C-2-8 Be able to give examples to illustrate biodiversity, and explore the impact of environmental changes on organisms.
- C-2-9 Be able to name the three states of water, and explain that these states change from one to another depending on the temperature changes.
- C-2-10 Be able to explain what causes rain, snow, cloud, fog and other natural phenomena.
- C-2-11 Be able to use simple tools to measure meteorological elements such as temperature, wind direction, rainfall, humidity, use these elements to describe weather.
- C-2-12 Be able to compare the differences in climatic characteristics between Macao and other places, by studying the data giving in the climate chart.
- C-2-13 Be able to have a basic knowledge of the universe, describe the composition and characteristics of the solar system.
- C-2-14 Be able to observe and record the phases of the moon, and know how to admire the starry sky.
- C-2-15 Be able to tell that natural phenomena such as moon phases, solar eclipses, and lunar eclipses are caused by the relative positions of the sun, moon, and earth.
- C-2-16 Be able to tell the geographical location, composition and basic terrain characteristics of Macao.
- C-2-17 Be able to describe different landforms on the earth's surface.
- C-2-18 Be able to give examples to illustrate the major natural hazards such as volcanic eruptions, earthquakes, tornadoes and tsunamis.
- C-2-19 Be able to talk about the non-renewable nature of fossil fuels and the environmental damage caused by using fossil fuels.
- C-2-20 Be able to name the major new sources of energy, describe how the development and application of such energy help promote sustainable development.
- C-2-21 Be able to explore the causes of global warming and its impact on life.
- C-2-22 Be able to discuss the causes and effects of environmental pollution such as air, water, noise, and solid waste pollution.

Learning Strand D: Science and Life

- D-1-1 Be willing to carefully observe scientific phenomena in daily life, master the basic skills in conducting scientific inquiries.
- D-1-2 Be able to feel the presence of air through carrying out experiments and inquiries.
- D-1-3 Be able to tell common light sources in life.
- D-1-4 Be able to explain the law of rectilinear propagation of light, and identify the causes of shadows through experiments.
- D-1-5 Be able to explain that the mirror image is formed by reflection of light, and list different uses of mirrors in daily life.
- D-1-6 Be able to explain that rainbows are formed by refraction of light, and admire the beauty of rainbows.
- D-1-7 Be able to feel that objects vibrate when they make sounds, and be able to explore sound propagation through experiments.
- D-1-8 Be able to explain how heat is produced, and describe the impact of heat on life.
- D-1-9 Be able to tell that objects expand when heated and contract when cooled through observation.
- D-1-10 Be able to name the unit of measurement for temperature, and know how to use a thermometer.
- D-1-11 Be able to know that different materials conduct heat at different speeds through life experience.
- D-1-12 Be able to tell that magnets have south and north poles, and know the law that opposite poles of two magnets attract whereas like poles repel each other through experiments.
- D-1-13 Be able to give concrete examples of uses of magnets in daily life.
- D-1-14 Be able to list precautions for safe use of electricity.
- D-1-15 Be able to give examples to illustrate technology applications in daily life.
- D-1-16 Be able to raise scientific exploration spirit by reading short stories about scientific inventions.

- D-2-1 Be able to initially raise explorable scientific questions based on observation, recording and comparison of scientific phenomena.
- D-2-2 Be able to participate in planning simple and feasible scientific inquiry activities, and conduct scientific experiments.
- D-2-3 Be able to express and present the process and results of scientific inquiries, and put forward reasonable scientific arguments.
- D-2-4 Be able to connect a simple circuit using basic components.

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- D-2-5 Be able to distinguish conductors and insulators through experiments.
- D-2-6 Be able to tell that energy such as electricity, light and heat can be converted into each other, and be able to give common examples;
- D-2-7 Be able to name the power generation methods in Macao, and establish habits of saving electricity.
- D-2-8 Be able to notice that forces are everywhere in life, and be able to list common examples.
- D-2-9 Through experiments, it indicates that force will change the motion state or shape of an object.
- D-2-10 Be able to explain the principles of simple machines, and tell their uses in daily life.
- D-2-11 Be able to understand the basic steps in process of design, and be able to design or produce simple engineering models or products.
- D-2-12 Be able to tell the life story of famous scientists, and appreciate their contributions to social development.
- D-2-13 Be able to talk about the history of human exploration of the universe, pay attention to the development and achievements of China's space exploration and aerospace technology.
- D-2-14 Be able to care about the development and application of new technologies, and list the impact of technological development on life.