

Annex I

The Requirements of Basic Academic Attainments for Junior Secondary Geography Education

I. Basic rationale

Junior secondary geography curriculum covers contents of humans and the environment, regional economy and development, etc. The curriculum design should be student-centred and aim to help students master the basic knowledge of Geography, its learning methods and learning attitudes in order to know the reality and development of the society; understand the relationship between human and the environment; explore the link between humans and the natural environment and the social environment as well as the meaning and value of life. At the same time, the curriculum should also help students improve their thinking skills and construct geographic literacy and positive values; nurture students to become good citizens; and lay a sound foundation for their continuing development and learning in the future. On these grounds, the Requirements of Basic Academic Attainments for Junior Secondary Geography Education should comply with the following fundamental principles.

1. Cherishing students' life experiences and development needs, integrating the knowledge of Geography subject.

Geography curriculum should emphasise the connection between students' learning and their life and the interconnection between different knowledge systems in the subject of Geography. The curriculum not only should highlight the space characteristics of Geography, but also should emphasise the integrated connection between different topics. Through the two main categories, namely "Humans and the environment" as well as "Regional economy and development", the basic knowledge and skills of Geography subject, which junior students must master, is integrated. The course materials should cover the geographical situation in Macao, China and the world. Among them, basic content suitable for the development of students is selected to construct the curriculum which especially focuses on the topics of influence and with reference significance in the aspects of social development, the progress of the times and improvement of personality; having a balance between the regional, national and global knowledge while taking into consideration the knowledge fundamentals, development and reality.

2. Enriching geographic literacy, improving students' thinking ability and civic quality.

The learning of Geography is not confined to classroom and subject contents. The curriculum should provide a variety of learning experiences to help students master the overview, connection and influence of the natural environment and social economy related to life in order to cultivate multiple thinking and critical thinking abilities as well as the civic qualities of being proactive, cherishing democratic values, respecting others and different cultural groups. The curriculum highlights the interdependent relationship between humans and the natural environment, whereby to cultivate a sense of belonging to the homeland and country, and develop students' environmental protection values and international perspectives.

3. Advocating diversified teaching methods, devoting effort to develop the crucial learning abilities to learn Geography subject.

The study of geography subject should not only be confined to acquiring knowledge, but should also develop key learning abilities , for example, being able to understand the importance of “spatial distribution”, “regional characteristics” and the relationship between “Humans and the environment”. In addition, when analysing, solving or participating in social and life issues, students are expected to have the ability to propose a preliminary solution based on evidence. Teachers should adopt diversified teaching methods such as discussion, observation, simulation or thematic research to guide students to master the appropriate and effective learning methods so students can develop lifelong learning abilities to learn Geography.

4. Advocating the openness and flexibility of the curriculum, encouraging the development of school-based curriculum.

In implementing Geography education in junior secondary, schools can develop their own school-based curriculum according to their actual needs and situation, providing that the requirements of basic academic attainments are met. Teachers should organise the teaching and learning contents according to the school characteristics and students' learning style, based on the principle of improving the overall qualities of students. Rich teaching resources, vivid and flexible teaching methods should also be used to create interactive learning atmosphere between teachers and students and enrich the contents of the Geography curriculum.

II. Curriculum Goals

1. Enable students to understand basic geography knowledge, including the basic situation of natural environment and humanistic environment, as well as the correlation between human and the environment.
2. Enable students to understand the economic development of different countries and regions and its impact on the society and the natural environment; know about the relationship between economic development, resources exploitation and environmental protection.
3. Help students to acquire the basic skills of reading, analysing, comparing, summing up and processing data; particularly guide them to attach importance to the methods of learning geography.
4. Help students preliminarily grasp the essentials of critical thinking, experimental judgment, problem solving as well as action practice.
5. Develop students' communication, self-expression, sharing and cooperation skills.
6. Help students develop a positive learning attitude; nurture a healthy and positive outlook on life and an innovative sense.
7. Develop students' multicultural perspectives; teach them to respect the rights of others and care about social change and social issues.
8. Enhance students' sense of belonging to and responsibility for the homeland and country.

III. The Requirements of Basic Academic Attainments in different learning domains

Explanation of coding:

- (1) The capital English letters represent the requirements of basic academic attainments in different learning domains; A –“Humans and the environment”, B –“Regional economy and development”.
- (2) The first number following the English letter represents the serial number of the learning category in various learning domains.
- (3) The second number following the English letter represents the serial number of the requirements of basic academic attainments in the respective learning category.

Learning domain A: Humans and the environment

A-1 Space and regions

- A-1-1 Be able to use maps to identify the distribution of continents and oceans; locate the countries on different continents.
- A-1-2 Be able to briefly describe the natural characteristics of landlocked countries, coastal countries, and island countries.

- A-1-3 Be able to identify China's territory and its provincial administrative units as well as the distribution of its neighbouring countries.
- A-1-4 Be able to use maps to indicate the four major regions of China; know about the basis for such division and compare the characteristics of people's life in different regions.
- A-1-5 Be able to use maps to indicate the positions of major straits, canals and seaports; illustrate the roles of major straits, canals, seaports and sea routes in regional or international shipping.
- A-1-6 Be able to describe the relationship between the marine and terrestrial ecological environment and human activities, as well as suggest protective measures.
- A-1-7 Be able to use maps to point out the land expansion process in Macao; care about the relationship between land expansion and the social development of Macao.
- A-1-8 Be able to tell the basic elements of a map; identify a place by its latitude and longitude.
- A-1-9 Be able to indicate the basis for the division of eastern and western, southern and northern hemispheres and that of the time zones.
- A-1-10 Be able to use a scale to calculate distances and areas.
- A-1-11 Be able to use topographic maps to identify landforms.
- A-1-12 Be able to use maps to find the location, direction and distribution of things.

A-2 Natural Environment

- A-2-1 Be able to illustrate the relations and influences of geographical elements such as landforms, climates and hydrology through reading materials.
- A-2-2 Be able to use charts and data to describe the distribution patterns of global annual temperature and precipitation; compare the climatic characteristics of different countries and regions.
- A-2-3 Through reading satellite weather images and information, be able to describe the weather conditions and changes in a certain area.
- A-2-4 Be able to take a certain country or region as an example to explain the impact of such factors as landforms, land and sea on the precipitation and temperature of that area.
- A-2-5 Be able to use charts and data to summarise the spatial and temporal distribution characteristics of of temperature and precipitation in China; give examples to illustrate their influence on human production and life.
- A-2-6 Be able to identify the climatic characteristics of Macao and summarise

the causes of their formation.

- A-2-7 By observing practical examples, be able to compare the life and culture of the residents in different regions of different climatic conditions.
- A-2-8 Infer the climate type of a region based on its natural landscape; be able to explain the relationship between natural landscape and climate; be able to explain its influence on residents' life and culture.
- A-2-9 Be able to point out the hydrological features of rivers and lakes.
- A-2-10 By observing practical examples, explain how the development and utilisation of rivers and lakes affect residents' life and production.
- A-2-11 By observing practical examples, be able to identify the effects of internal and external processes on landforms.
- A-2-12 Be able to give real examples to explain how human beings develop and use different terrain types according to local conditions.
- A-2-13 Be able to describe the topographic features of a continent or country and Macao; give examples to illustrate how landforms affect residents' daily life activities and production.

A-3 Natural Disasters

- A-3-1 Be able to explain the causes of natural disasters in a certain continent or country; specify their impacts on human daily life activities and production; suggest the preventive and contingency measures against such disasters.
- A-3-2 Describe the causes of natural disasters such as typhoons and saline water intrusion in Macao and suggest the contingency measures; pay attention to and care about people in disaster areas.

A-4 Environmental issues

- A-4-1 Be able to outline the conditions for the formation of prairies and tropical rainforests; give examples to illustrate how human activities caused prairie desertification and decline of rainforests; concern about it and suggest feasible measures.
- A-4-2 Be able to explain the causes of global warming, acid rain and heat island effect; identify the relationship between such causes and human activities.
- A-4-3 Be able to give examples to illustrate the impacts of pollution from urbanisation and industrialisation on human survival and life; formulate an action plan to reduce pollution at home or at school.
- A-4-4 Be able to tell the basic situation of handling exhaust gases, wastewater and solid waste in Macao; know about the related policies and measures, and give suggestions for improvements.

Learning domain B: Regional economy and development

B-1 Population, resources and economy

- B-1-1 Be able to describe the distribution of the world population; compare the differences in population distribution under different natural conditions.
- B-1-2 Be able to tell the trend of world population growth; compare the impacts of overpopulation and ageing population on the society.
- B-1-3 Be able to describe the distribution and characteristics of dry and wet regions in China; compare the differences in agricultural development under different wet and dry conditions.
- B-1-4 Be able to give examples to illustrate different types of marine and land resources as well as the development and utilisation of such resources.
- B-1-5 Be able to take a certain region as an example to explain the impact of tourism resource development on the economy and the environment.
- B-1-6 Be able to describe the conditions that affect the development of a business centre in a city.
- B-1-7 Be able to take a certain region as an example to describe the conditions for the development of hi-tech industries.
- B-1-8 Be able to take a certain region as an example to illustrate how transportation affects the economic development.
- B-1-9 Be able to take a certain country or region as an example to describe the distribution characteristics and the exploitation of natural resources in that area; give examples to explain the relationship between resources and economy.
- B-1-10 Be able to give examples to explain the impacts of resource exploitation on eco-environment; know to care for the environment.

B-2 Settlements and urbanisation

- B-2-1 Be able to compare the basic features and differences between urban and rural development.
- B-2-2 Be able to describe the conditions for the development of urban functions.
- B-2-3 Be able to take Macao as an example to discuss the problems arising from urbanisation.
- B-2-4 Be able to describe the development status of traffic, economy, and tourism in Macao and know about Macao's locational advantages.

B-3 Sustainable development

- B-3-1 Be able to describe the concept and basic contents of sustainable development.

- B-3-2 Be able to describe the conditions for a sustainable development in Macao and care about the sustainable development of Macao.

B-4 Global contact

- B-4-1 Be able to describe the work and the significance of major international organisations.
- B-4-2 Be able to explain the impact of China's joining international organisations on the development of the country and the society.
- B-4-3 Be able to describe the development trend of economic globalisation in the contemporary world and express views on the opportunities and challenges brought by economic globalisation to the Chinese economy