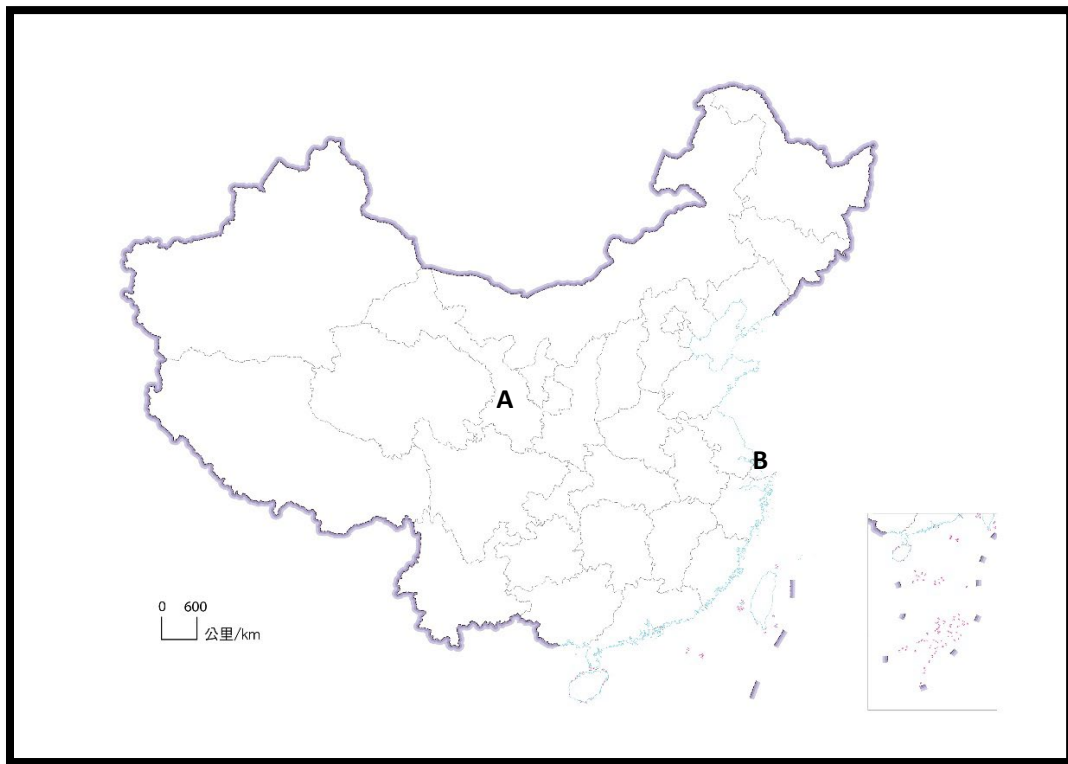


Learning and Teaching Resource Package Related to the Geography of China
Topic 8 Industrialisation
(Junior Secondary Worksheet)
Theme: Manufacturing industry in our country

Pre-lesson task

- (a) Please provide information about a product you have used or purchased that was made in China. On the map of China below, mark the manufacturing location and share relevant details about the product and its manufacturing location. Two examples have been done for you.

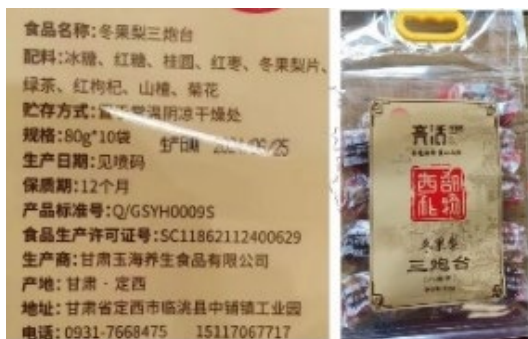
Figure 8.1 Examples of products and their manufacturing locations



Map reference: 中華人民共和國自然資源部審圖號 GS(2023)2767 號 (Date of reference: 28 April 2025)

Location A:

I bought this Sanpaotai tea when I travelled to Lanzhou, Gansu. The tea is produced in Dingxi, Gansu and is intended for locals and tourists.



Location B:

I have used the Logitech webcam product for online courses / lessons. It is manufactured in Shanghai, while the company is headquartered in Sweden. Logitech operates two large factories in Suzhou, which is about 100 km away from Shanghai. The displayed product may be labelled as a product from Shanghai, as Logitech has its regional office in Shanghai.



Details of my product

Open-ended answer

(b) Read Knowledge Box 8.1.

Knowledge Box 8.1

According to the nature of the products, industry can be divided into two types, namely heavy industry and light industry. Heavy industry is the large-scale production of goods, often using heavy machinery and complex processes. These industries require a lot of capital investment and infrastructure. Light industry focuses on the smaller-scale production of consumer goods, often using lighter machinery and fewer raw materials. Light industry usually requires less capital and infrastructure than heavy industry.

Reference: Geography textbook of Shanghai Education Edition Grade 7, Volume 2; National Bureau of Statistics of China,

https://www.stats.gov.cn/english/ClassificationsMethods/Definitions/200205/t20020517_72382.html

(a) Complete the following table to compare the characteristics of heavy and light industries.

	Heavy Industry	Light industry
Scale of production		
Type of machinery used		
Capital investment and infrastructure		

[Hints:

	Heavy Industry	Light industry
Scale of production	larger	smaller
Type of machinery used	heavier	lighter
Capital investment and infrastructure	more	less

]

(b) Answer the following multiple-choice questions.

(i) Which of the following is an example of heavy industry?

- A. Textile industry
- B. Electronic assembly
- C. Steel industry
- D. Food industry

(ii) Which of the following is an example of light industry?

- A. Car manufacturing
- B. Oil refinery industry
- C. Shipbuilding industry
- D. Toy-making industry

[Answer: (i) C; (ii) D]

In-class learning and teaching

Learning objectives:

- To understand the development process of manufacturing industry in our country
- To understand the spatial distribution of manufacturing industry in our country
- To understand the development of manufacturing industry in Zhujiang Delta Region

Development 1: The development and distribution of the manufacturing industry in our country

Watch the video titled Topic 8 Manufacturing Industry in Our Country (for junior secondary). Read Knowledge Box 8.2, and discuss the questions below.

Knowledge Box 8.2

- Before the founding of the People's Republic of China, our country's industries were mainly concentrated in the coastal and riverside areas. After the founding of the People's Republic of China, the country focused on the development of industry and gradually formed a heavy industrial base in the Northeast and many industrial centres in the central and western regions. From 1952 to 1978, under the heavy industry priority development strategy, secondary production grew rapidly. By 1978, the share of secondary production in GDP had risen from 17.6% to 44.1%.
- After the reform and opening-up in 1978, industry developed rapidly in the coastal and riverside areas, some old industrial centers grew and expanded, new industrial centers continued to emerge, and industrial bases such as the Chang Jiang Delta, central and southern Liaoning, Beijing-Tianjin-Tangshan, and the Zhujiang Delta Region were formed.
- With the implementation of strategies such as Western Development Strategy (1999) (西部大開發), the revitalisation of old industrial bases in Northeast China (振興東北老工業基地) and the rise of the Central China Plan (中部崛起計劃), the level of infrastructure in the central and western regions has steadily improved.
- In recent years, the central and western regions have attracted more investment and speeded up industrial development by taking advantages of abundant natural resources and lower production costs.

Reference: Geography Textbook of Junior Secondary School Human Education Edition Textbook, Grade 8, Volume 1; The Central People's Government of the People's Republic of China, 2009, https://www.gov.cn/test/2009-09/11/content_1415037_4.htm

1. Refer to Knowledge Box 8.2. How has the industrial location changed in our country?

(a) Before the founding of the People's Republic of China, where were the industrial areas mainly located in our country?

- A. Northeast China
- B. Coastal and riverside areas
- C. Central and Western regions
- D. Southwest China

(b) After the establishment of the People's Republic of China, what type of industrial base was developed in the northeast region?

- A. Light industrial base
- B. Heavy industrial base
- C. Science and technology industrial base
- D. Service industry base

(c) After the reform and opening-up, new industrial centers have formed. In which of the following regions is a major new industrial base not found?

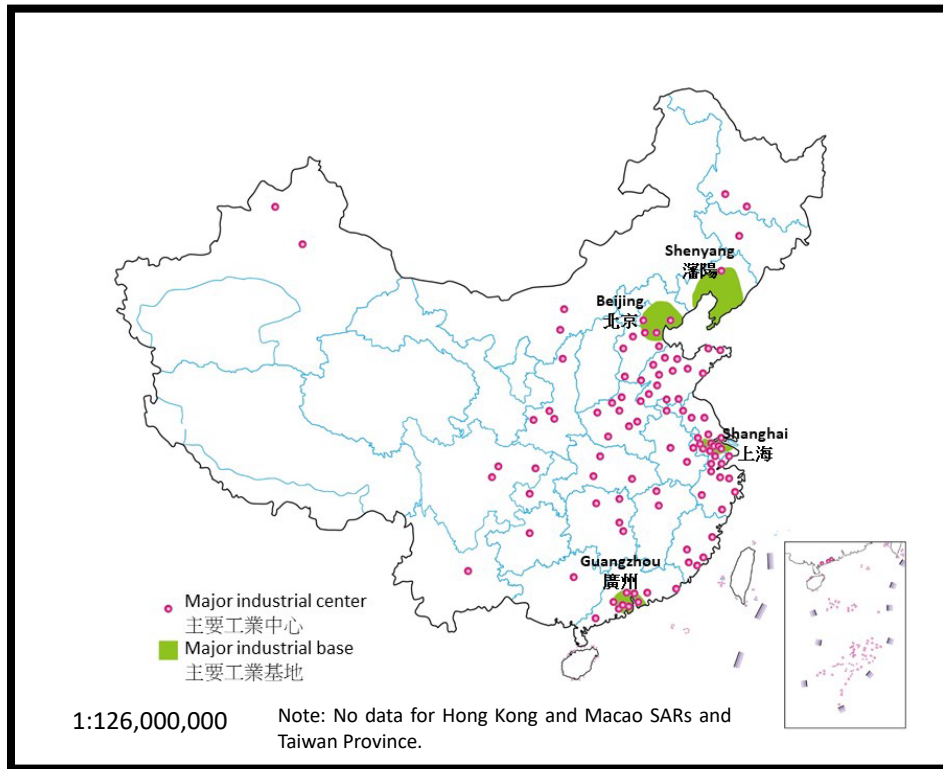
- A. Chang Jiang Delta
- B. Zhujiang Delta Region
- C. North China Plain
- D. Beijing-Tianjin-Tangshan

[Answer: (a) B; (b) B; (c) C]

2. Label the following main industrial bases on Figure 8.2.

Central and Southern Liaoning (遼中南)
Beijing-Tianjin-Tangshan (京津唐)
Chang Jiang Delta (長江三角洲)
Zhujiang Delta Region (珠江三角洲地區)

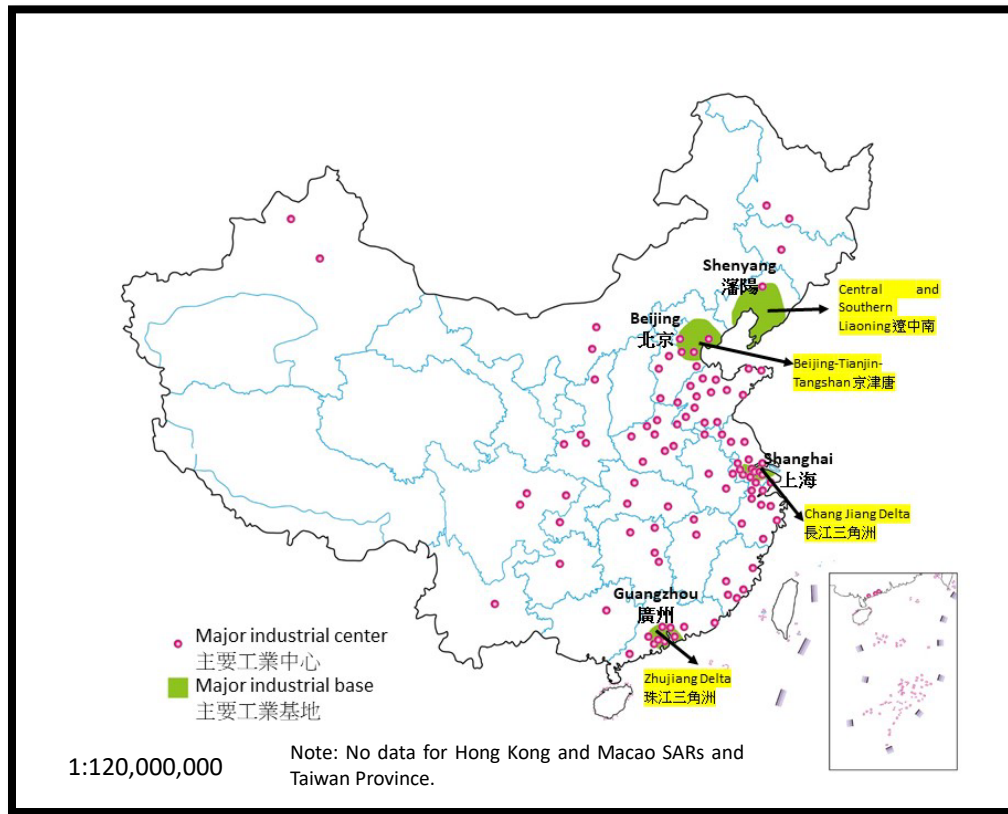
Figure 8.2: Industrial distribution in our country



Source: Junior Secondary School Human Education Edition Textbook, Grade 8, Volume 1.

Data Source: China Regional Statistical Yearbook, China Provincial and Municipal Statistical Yearbook

Industrial distribution in our country



3. What is the pattern of industrial distribution in our country?

[Hint: Figure 8.2 shows that the general pattern of industrial distribution in our country is as follows: the eastern coastal areas are densely populated with industrial centres and are home to the main industrial bases; the central region has a relatively high concentration of industrial centres; the western region has fewer industrial centres and a sparse distribution.

Among them, the central and southern parts of Liaoning (遼中南地區) are major old industrial bases in our country, and also the largest heavy industrial base, which is mainly characterised by heavy industries such as iron and steel, machinery, and petrochemicals. The Beijing-Tianjin-Tangshan area (京津唐地區) includes industries such as iron and steel, machinery, chemicals, electronics, and textiles, making it the second-largest comprehensive industrial base in our country and the largest comprehensive industrial base in the northern region. The Chang Jiang Delta (長三角地區) is the largest comprehensive industrial base in our country, where both light and heavy industries are highly developed; it is also the most historically established, the largest in scale, the most structurally complete, and the one with the highest technological level and economic benefits. The main industrial sectors include textiles, machinery, electronics, metallurgy, and the

chemical industry. The Zhujiang Delta Region (珠三角地區) is a comprehensive industrial base that focuses mainly on light industry and has developed into an important emerging electronic industrial base nationwide.

Development 2: The industrial development in the Zhujiang Delta Region

Read the article “Industrial Development in the Greater Bay Area”. Complete the fill in the blanks in Knowledge Box 8.3, and discuss the questions below.

https://www.edb.gov.hk/attachment/en/curriculum-development/kla/pshe/references-and-resources/geography/Industry%20development_E.pdf

Knowledge Box 8.3

The Zhujiang Delta Region is located in the southern part of the Guangdong Province of China, adjacent to Hong Kong and Macao. It is one of the most economically developed regions in our country. The industrial development of the Zhujiang Delta Region can be roughly divided into the following stages.

Fill in the blanks.

1. Before 1978: (a) _____ dominated	Economic structure: Mainly agriculture, with weak industrial foundation
2. 1978-1992: (b) _____ policy	1978: China implemented the reform and opening-up. The Zhujiang Delta Region became the first batch of open areas. 1980s: Special economic zones, including Shenzhen and Zhuhai were established to attract foreign investment and develop labour-intensive industries such as textiles, toys and electronics assembly.
3. After 1985: Hong Kong's economy gradually shifted from manufacturing to service sector.	By forming a “front shop, back factory” (前店後廠) model with the Zhujiang Delta Region, Hong Kong played the role of a “shop” by providing (c) _____, management, design, marketing and (d) _____.
4. 1992-2001: Period of rapid development	Industrial upgrading: From labour-intensive to capital-intensive industries, driven by the growth of (e) _____ sectors such as electronic equipment, machinery, chemicals, and automobiles. This shift has strengthened the region’s foundation for advanced industries such as telecommunications, machinery manufacturing, biopharmaceuticals, and software, significantly boosting its overall competitiveness.
5. 2001-2008: Globalisation and industrial upgrading	2001: Our country joins the World Trade Organisation, and the manufacturing industry in the Zhujiang Delta Region further integrates into the (f) _____ market.

<p>6. 2008 to present: Transformation, upgrading and innovation drive</p>	<p>The government promotes industrial upgrading and develops high-end manufacturing and modern service industries.</p> <p>Innovation-driven: Shenzhen, Guangzhou, and Dongguan have become centers of technological innovation, where high-tech companies such as Huawei and Tencent have emerged. Shenzhen is a leader in integrating smart manufacturing technologies, such as the Internet of Things (IoT), artificial intelligence (AI), big data, robotics, and cloud computing, into the industrial base.</p> <p>Regional synergy: The construction of the (g)_____ promotes regional economic integration, and the manufacturing industry develops in an intelligent and green direction.</p> <p>Urbanisation: The growth of the industrial sector has led to a massive influx of migrants and rapid urban expansion. The transformation of Shenzhen from a small fishing village to a global metropolis is an example of this process. Furthermore, the clustering of industry has accelerated the formation of an urban agglomeration, with cities in the region becoming increasingly interconnected through transport, and economic and cultural ties, favouring an interdependent regional economy.</p>
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Answers:

- (a) Agriculture
- (b) Reform and opening-up
- (c) capital
- (d) technologies
- (e) high-tech
- (f) global
- (g) Guangdong-Hong Kong-Macao Greater Bay Area

1. Read Knowledge Box 8.3. Choose the best answer for the following multiple-choice questions.
 - (a) What was the primary role of Hong Kong in the “front shop, back factory” model established with the Zhujiang Delta Region?
 - A. Providing land
 - B. Offering capital, management, design, marketing, and technology
 - C. Providing labour
 - D. Being responsible for manufacturing and production
 - (b) Which of the following best describes the transformation of the manufacturing industry in the Zhujiang Delta Region since the 2000s?
 - A. A shift from capital-intensive to labour-intensive industries
 - B. A focus on traditional industries like food and garments
 - C. A transition from labour-intensive to capital-intensive industries, driven by high-tech sectors
 - D. A decline in manufacturing due to urbanization
 - (c) Which of the following best describes the impact of industrialisation on urbanisation in the Zhujiang Delta Region?
 - A. It led to a decline in population and urban infrastructure
 - B. It attracted a large flow of migrants and facilitated rapid urbanisation
 - C. It caused a shift from high-tech industries to traditional manufacturing
 - D. It reduced the interdependence of cities in the region

[Answer:

(a) B; (b) C; (c) B]

2. According to Knowledge Box 8.3 and Table 8.1, how does industrialisation contribute to economic development in the Zhujiang Delta Region?

Table 8.1: Industrial Composition of GDP in the Zhujiang Delta Region (%)

	2010	2015	2020
Primary Industry	2.1	1.8	1.8
Secondary Industry	48.6	43.6	39.9
Tertiary Industry	49.2	54.6	58.3

Source: Guangdong Provincial Statistical Yearbook

[Hint: Economic growth and higher incomes: The growth of manufacturing has significantly boosted the region's economy by creating jobs, attracting migrant workers, and rising income levels, which further boosted economic growth.

Urbanisation and infrastructure development: Industrialisation encouraged urban growth through migration and the development of infrastructure such as transport, housing, schools, and hospitals, improving the quality of life for residents and supporting continued economic growth.

Formation of an interdependent regional economy: The concentration of manufacturing industries led to a tightly-knit cluster of cities in the Zhujiang Delta Region, fostering a resilient and dynamic regional economy through shared resources and collaboration.

A shift in economic structure: According to Table 8.1, the Zhujiang Delta Region has shifted from a manufacturing-based to a service-oriented economy, with initial industrialisation laying the foundation for this transition.

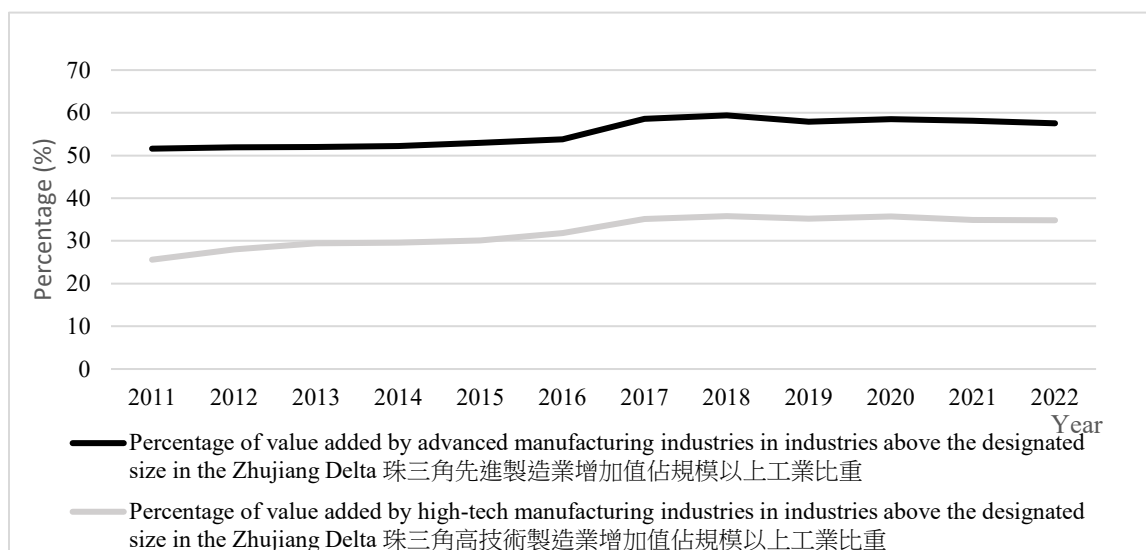
Industrialisation has driven economic growth, urbanisation, and significant changes in the region's economic structure, paving the way for sustainable development and prosperity.]

Post-lesson task

In recent years, with the rapid economic development of the Zhujiang Delta Region region, the government of Guangdong Province has been gradually relocating the traditional manufacturing industry, that is very polluting and consumes a lot of energy , to the mountainous regions in the eastern, western, and northern parts of Guangdong Province in order to free up the Zhujiang Delta Region for the development of high-growth and high-value-added industries, and increase the share of medium to high-end manufacturing industries in the industrial structure of the Zhujiang Delta Region. With the gradual relocation of traditional industries from the major cities in the Zhujiang Delta Region, the local government has started to make vigorous efforts to develop advanced manufacturing and modern service industries in recent years. To facilitate the upgrading of industrial organisations, the local government has invested a lot of resources in promoting the development of high-value-added and high-tech industries to increase the share of the middle-to-high-end sector in the industrial structure.

Refer to Table 8.1 and Figure 8.3. Search for relevant information on the Internet and discuss the following questions.

Figure 8.3 Share of value added by advanced manufacturing industry and high-tech industries above the designated size in the Zhujiang Delta Region



Data Source: Guangdong Yearbook

Note: “Industries above the designated size” refer to industrial enterprises with an annual main business income of RMB 20 million or more.

1. What direction of transformation is the manufacturing sector in the Zhujiang Delta Region currently facing?

[Hint: The data shows that the industrial structure of the Zhujiang Delta Region has changed significantly over the past decade, with the share of secondary industry (including manufacturing) gradually declining from 48.6% in 2010 to 39.9% in 2020. Meanwhile, the share of the tertiary industry (service sector) has increased significantly, from 49.2% in 2010 to 58.3% in 2020. This trend indicates that the Zhujiang Delta Region is undergoing a transformation from traditional manufacturing industries to modern service industries and advanced manufacturing industries with higher value-added capacity and higher input of technology.

Specifically, the direction of transformation of the manufacturing sector in the Zhujiang Delta Region includes the following aspects:

- (a) Abolishing the highly polluting and energy-consuming traditional manufacturing industries: With the rapid economic development of the Zhujiang Delta Region, the local government has gradually relocated the highly polluting and energy-consuming traditional manufacturing industries from major cities to the eastern, western, and northern mountainous regions of Guangdong Province. This initiative aims to free up space for more environmentally friendly and energy efficient industries.
 - (b) Development of high-value-added and high-tech industries: The Government has invested considerable resources to promote the development of high-value-added and high-tech industries, and increase the proportion of medium- and high-end manufacturing industries in the industrial structure. This transformation includes the strengthening of technological innovation, the introduction of high-tech enterprises, and the development of smart manufacturing.
 - (c) Upgrading the advanced manufacturing sector: Unlike the traditional manufacturing industry, the advanced manufacturing industry has higher input of technology and higher added value and is the focus of the future development of Zhujiang Delta Region. Through the introduction of new technologies and improving production efficiency, the Zhujiang Delta Region hopes to occupy a higher-end market position in the global manufacturing sector.]
2. How have advanced manufacturing and high-tech manufacturing industries contributed to the development of the Zhujiang Delta Region? What are the predicted future trends of these industries in the Zhujiang Delta Region? Please search on the internet and gather additional information to answer the question.

Recommend to search the information through these websites:

Guangdong Provincial Statistical Yearbook, Shenzhen Statistical Yearbook / Manufacturing data released by the National Bureau of Statistics / Guangdong-Hong Kong-Macao Greater Bay Area Outline Development Plan

[Hint: The major contributions of advanced manufacturing and high-tech manufacturing industries in the development of the Zhujiang Delta Region are:

- (a) Boosting economic growth: The advanced manufacturing industry and high-tech manufacturing industry have become the new engine of economic growth in the Zhujiang Delta Region. Through the introduction of high level of technology and the increase in industrial added value, these industries have greatly improved the productivity and economic performance of the region. The sustained GDP growth of the Zhujiang Delta Region is partly attributed to the rise of these high-tech industries.
- (b) Enhancing international competitiveness: As a prior region of our country's reform and opening-up, the rapid development of advanced manufacturing and high-tech manufacturing in the Zhujiang Delta Region has led the region to occupy an important position in the global manufacturing industry. Particularly in high-tech fields such as electronic information, automobiles, robotics, biomedicine, etc., enterprises in the Zhujiang Delta Region have become more competitive in the international market.
- (c) Promoting the upgrading of industrial structure: With the outward shift of traditional manufacturing industries, the Zhujiang Delta Region has realised the transformation from low-value-added industries to high-value-added industries through the development of advanced manufacturing and high-tech manufacturing. This transformation not only optimises the industrial structure but also reduces reliance on resources and energy and promotes sustainable development.
- (d) Innovation-driven development: The rapid growth of the high-tech manufacturing industry has greatly contributed to the innovative atmosphere in the region and promoted the industrialisation of many scientific research results. High-tech enterprises in the Zhujiang Delta Region, such as Huawei and BYD in Shenzhen, have become an important force in global innovation.

From Figure 8.3, the trend of the advanced manufacturing and high-tech manufacturing industries as a whole shows an upgrading. For the future development of these industries in the Zhujiang Delta Region, the share and influence of these industries in the Zhujiang Delta Region will continue to grow with the political support of these industries by the national and local governments. It is expected that in the coming years, these industries will play an important role in economic, innovative and sustainable development, driving the Zhujiang Delta Region to the forefront of the global manufacturing industry.]