

## Subway




## Unit One Inquiry

## Lead-in

Match the following pictures with the words in the box.

| turnstile | route | platform |
| :--- | :--- | :--- |
| entrance | peak | schedule |




| 1号线首末班车时刻表 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 站名 | 往升山澵方向 |  | 徍部方同 |  |
|  | 首班车 | 末班车 | 曾妆车 | 未程车 |
| \＃f1uial | － | － | 6：20 | 23：00 |
| 火车北站 | 7：01 | 23：41 | 6：22 | 23：03 |
| 人民就路 | 6：58 | 23：39 | 6：24 | 23：05 |
| 文玟楿 | 6：56 | 23：37 | 6：27 | 23：07 |
| 唯ら市 | 6：54 | 23：35 | 6：29 | 23：09 |
| 天柎场 | 6：52 | 23：33 | 6：31 | 23：11 |
|  | 6：50 | 23：31 | 6：33 | 23：13 |
| 华西坝 | 6：49 | 23：29 | 6：34 | 23：15 |
| 学体肖溏 | 6：47 | 23：27 | 6：36 | 23：17 |
| 䠔家桥 | 6：45 | 23：25 | 6：38 | 23：19 |
| 栓样林 | 6：43 | 23：23 | 6：40 | 23：21 |
| 火车南 | 6：41 | 23：21 | 6：42 | 23：23 |
| 离斯 | 6：38 | 23：19 | 6：45 | 23：25 |
| 金部域 | 6：36 | 23：17 | 6：47 | 23：27 |
| 明化园 | 6：35 | 23：15 | 6：49 | 23：29 |
| 铛駴场 | 6：33 | 23：13 | 6：50 | 23：31 |
| 世妃城 | 6：30 | 23：11 | 6：53 | 23：33 |
| 天拊三畄 | 6：28 | 23：09 | 6：55 | 23：35 |
|  | 6：26 | 23：07 | $6: 57$ | 23：37 |
| 先㐌大道 | 6：24 | 23：05 | $6: 59$ | 23：39 |
| 四河 | 6：22 | 23：02 | 7：01 | 23：42 |
| 「部 | 6：20 | 23：00 | － |  |



## Section A：Situational Dialogues

## Dialogue 1

It＇s George＇s first visit to Chengdu，and he is inquiring a metro employee about taking the subway．
$G=$ George $\quad M=$ Metro employee
M：Good morning，sir．Can I help you？
G：Yes，please．I＇m new here．Could you tell me how to take the subway？
M：First，you need to buy a ticket at the ticket center．Then swipe the ticket at the turnstile，and it will open．You can pass through it and walk downstairs to the platform．
G：I see．How do I leave the platform after getting off the train？
M：That＇s easy．You insert the ticket into the slot at the turnstile，and the ticket will be taken automatically．Then you can go through the turnstile and exit the station．

G：How long is the interval between trains？
M：The interval between trains is different in peak hours and non－peak hours．
G：When is the peak hours？

M：From Monday to Friday，the morning peak is defined as 7：00－9：00，and the evening
peak 17：00－19：00．Normally，the interval in peak hours is about 2 minutes，and 5
minutes in non－peak hours．
G：What＇s the departure time of the first and the last train？
M：For most of the Lines，it＇s 6：30－22：30．But the time for each stop is different．Here is the time schedule of Chengdu Metro，you can refer to it．

G：Thanks a lot．

## Words to Know

| inquire | ［［n＇kwaıə（r）］ | vt．\＆vi．ask for information about sth．打听，询问 |
| :---: | :---: | :---: |
| swipe | ［swayp］ | $v t$ ．to pass a plastic card through a special machine that is able to read the information that is stored on it 刷（磁卡） |
| turnstile | ［＇t3：nstarl］ | $n$ ．a mechanical barrier at the entrance to a place（入口处等的）旋杆，闸机 |
| platform | ［＇plætfo：m］ | $n$ ．the raised flat area beside the track at a train station where you get on or off the train 站台 |
| insert | ［in＇s3：t］ | $v t$ ．to put sth．into sth．else or between two things 插入，嵌入 |
| slot | ［slot］ | $n$ ．a long narrow opening，into which you put or fit sth．（投放或插入东西的）窄缝，扁口 |
| exit | ［＇eksit］ | n．a way out of a public building or vehicle 出口，通道 $v i$ ．to go out，to leave a building，stage，etc．出去，离去 |
| interval | ［＇intəvl］ | $n$ ．a period of time between two events（时间上的）间隔，间隙 |
| peak | ［pi：k］ | $n$ ．the point when sb．／sth．is best，most successful，strongest，etc．顶峰，高峰 |
| departure | ［dı＇pa：tfə（r）］ | $n$ ．a plane，train，etc．leaving a place at a particular time（在特定时间）离开的飞机（或火车等） |
| schedule | ［＇Sedju：1］ | $n$ ．a plan that lists all the work that you have to do and when you must do each thing 时刻表，进度表 |

## Phrases and Expressions

pass through
经过，通过
walk downstairs
peak hour
non－peak hour

## 下楼

## 高峰时段

非高峰时段

## Dialogue 2

George is now at the North Railway Station，Chengdu．He is going to Mingshu Royal Cemetery，so he is asking a metro employee for direction．
$G=$ George $\quad M=$ Metro employee
G：Excuse me，could you help me figure out how to get to Mingshu Royal Cemetery？
M：You can＇t get there directly from here and it＇s a little complicated．Let me show you on the map．
G ：That＇s great．
M：There are two ways．You can take Line 1 and after 3 stops，get off at Luomashi Station．Then transfer to Line 4 bound for Xihe．The other one is to take Line 7 to Huaishudian，and then also transfer to Line 4 to the destination．

G：Which way is faster？
M：They are almost the same mileage．But if you choose Line 7，you must take the inner－circle， which runs in a clockwise direction based on this map．It＇s much faster than the outer－circle．
G：How long would it take me to get there？
M：It＇s approximately 30 minutes in total．
G：So nice of you．Thank you so much．
M：My pleasure．Remember，don＇t take the train in the opposite direction．

## Words to Know

| transfer | ［træns＇f3：（r）］ | vt．\＆vi．\＆n．the act of transporting sth．from one location to <br> another 换乘，转移 |
| :--- | :--- | :--- |
| destination | ［．destr＇ner $[\mathrm{n}]$ | $n$. a place to which sb．／sth．is going or being sent 目的地，终点 <br> mileage［＇marlid3］n．the distance that a vehicle has travelled，measured in miles 英 <br> 里数，里程 |


| clockwise | ［＇klokwaız］ | adj．\＆adv．moving around in the same direction as the hands of a <br> clock 顺时针方向的（地） |
| :--- | :--- | :--- |
| opposite | ［＇ppəzıt］ | adj．on the other side of a particular area from sb．／sth．and usually <br> facing them 相对的，对面的 |

## Phrases and Expressions

| figure out | 弄明白，解决 |
| :--- | :--- |
| bound for | 驶往 |
| inner－circle | 内环 |
| outer－circle | 外环 |

## 87878 Exercise 1：Vocabulary

Fill in the blanks with corresponding English of the following words and expressions．
闸机 $\qquad$刷卡 $\qquad$

插卡 $\qquad$出站 $\qquad$

站台 $\qquad$换乘 $\qquad$

时刻表 $\qquad$列车间隔 $\qquad$

高峰期 $\qquad$非高峰期 $\qquad$

Exercise 2：Response

Suppose you are a metro employee. Give your response to the following situations.

1. How can I get to People's Park from here?
2. When will the next train arrive?
3. What's the time of the last train to Shuangliu International Airport?
4. How do I exit the station after getting off the train?
5. Could you give me some suggestions about the tourist attractions near Metro stations?

## 27878 Exercise 3: Role Play

Work with your partner to create a dialogue based on the given situation.
Suppose you are an employee at Chengdu Metro Station, and your partner Tony is a foreigner. He wants to know how to take the subway and the route from East Railway Station to Chengdu Zoo and other attractions near the Metro as well. Create a dialogue by referring to the diagram in Appendix $I$.

## Section B: Reading

## Urban Rail Transit in China

Urban rail transit in the People's Republic of China encompasses a broad range of urban and suburban electric passenger rail mass transit systems including subway, light rail, tram and maglev. Some classifications also include non-rail bus rapid transport. By the end of 2016, there are 30 metro systems in Chinese mainland with a total combined length of 3,586 kilometers. Today China boasts both the world's longest, second and fourth longest metro systems. The Shanghai Metro only started operating in 1993 and has since expanded to be the world's longest subway system. Out of the top 10 busiest metro systems in the world 4 of them are in China. As of January 2016, 39 cities have metro systems approved according to
the National Development and Reform Commission. China plans to spend 4.7 trillion yuan ( $\$ 706$ billion) on transport infrastructure in the next 3 years. As of early 2017, China has $5,636.5 \mathrm{~km}$ of under construction rail transit lines.

Several Chinese cities had urban electric tramways in the early 20th century, which were dismantled in the 1950s to 1970s. Nanjing had an urban railway from 1907 to 1958. The first subway in China was built in Beijing in 1969. The Tianjin Metro followed in 1984. Hong Kong, at the time still under British rule, completed its first section of subway in 1979. Today, Hong Kong's MTR Corporation has investment, consulting and management stakes in the rapid transit systems of several mainland cities.

The rapid growth of the Chinese economy since the late 80 s has created a huge surge in demand for urban transport. This prompted cities across China to pursue and draft proposals for subway networks, with Shanghai and Guangzhou opening their first sections of subway in the 90s, inspiring more cities to propose subway networks. In 1995, the Central Government, alarmed by the high cost and financial debt from these ambitious subway plans, put out a "notice on the suspension of approval of urban underground rapid rail transit projects". At the time Nanjing, Wuhan, Chongqing, Dalian and Shenzhen had advanced proposals waiting to be approved. Wuhan, Chongqing, and Dalian managed to circumvent the moratorium on subway construction by constructing and opening lower cost elevated light metros and monorails in the early 2000s. Rapid urbanization of China leads to severe congestion and pollution in urban areas leading to the suspension being lifted. Initially, light metro lines using small profile and shorter rolling stock were constructed to reduce costs. It was assumed that as ridership grows, the line will operate trains at a low headway to increase capacity. This design paradigm was known in China as "small groups, high density" operation. However, after a few years operating, many of these lines such as Guangzhou Metro Line 3, Shanghai Metro Line 6 and Line 8 were severely overcapacity. This led many cities such as Beijing, Guangzhou, Wuhan and Chengdu to use higher capacity designs on newer lines.

Since the early 2000s, the growth of rapid transit systems in Chinese cities has rapidly accelerated, with most of the world's new subway mileage in the past decade opening in China. From 2009 to 2015, China built 87 mass transit rail lines, totaling 3,100 km, in 25 cities at the cost of 988.6 billion yuan. In 2016, the Chinese government lowered the minimum population criteria for a city to start planning a metro system from 3 million to 1.5 million residents. As part of the 13th Five Year Plan, the Chinese government published a transport white paper titled "Development of China's Transport". The plan envisions a more sustainable transport system with priority focused on high-capacity public transit particularly urban rail transit and bus rapid transit. All cities with over 3 million residents will start or
continue to develop urban rail networks. Regional rail networks will be constructed to connect and integrate urban agglomerations such as the Jingjinji, Yangtze River Delta and Pearl River Delta areas. In 2017, some 43 smaller third-tier cities in China, have received approval to develop subway lines.

The first subway in west China was launched on September 27, 2010 in Chengdu, capital of Southwest China's Sichuan province.


Passengers read newspapers in a subway train in Chengdu city on Monday.
[Photo/Xinhua] Updated: 2010-09-27 21:45

Chengdu Metro Line One runs between northern and southern Chengdu over a distance of 18.5 km with 17 stations, said Yu Bo, chief engineer of Chengdu Metro Co., Ltd., builder and operator of the line.

The subway's construction began in 2005 with an investment of about 8 billion yuan ( $\$ 1.19$ billion). The subway operates from 7 am to 9 pm with an interval of 10 minutes between trains. It is designed to carry 180,000 to 200,000 passengers per day.

Chengdu will accelerate its subway construction in the next few years. It plans to have a 298 km subway system, carrying more than three million passengers per day by $2020, \mathrm{Yu}$ said.

Now, China's subway manufacturing technology is in the leading position in the world. The following is a report from CGTN on October 18, 2017 entitled "China Metro Goes to the World"


The subway system in the US city of Boston will soon be equipped with train cars＂Made in China＂，which will be shipped to the city in December．The current train cars in Boston have been running for decades and are too old to provide a modern trip experience．

Made in northeastern China＇s Jilin Province，the new cars can run at a speed of 102 kilometers per hour．Although designed according to the US standard，the producing method of the cars is owned by a Chinese company named CRRC，the China Railway Rolling Stock Corporation．The final products match the Boston subway＇s strict maximum weight requirement of 34 tons per car，which barred a lot of world－famous companies from getting the order form．
＂The cars have to be solid，but light－weight at the same time，＂technology manager of the project Hong Haifeng told CCTV＇s Mandarin news channel．＂And they have to be compatible with the century－old facilities in Boston．＂This is the first time for Chinese rail equipment to be used in the United States．The new cars are designed to run for 30 years．

CRRC showcased the model car in Boston on April 3．CCTV reported that the model was praised by the local leaders and citizens，including the governor of Massachusetts Charlie Baker．＂We＇re really looking forward to putting these in transit，＂he said，adding that the upgrades will bring the Boston subway into the modern era．


Words to Know

| transit | ［＇trænzit］ | $n$ ．the system of buses，trains etc．for traveling from one place to another 交通运输系统 |
| :---: | :---: | :---: |
| encompass | ［in＇kımpəs］ | $v t$ ．to include a large number or range of things 包含，涉及 |
| tram | ［træm］ | $n$ ．a vehicle driven by electricity，that runs on rails and carries passengers 有轨电车 |
| maglev | ［＇mæglev］ | $n$ ．train is suspended on a magnetic cushion above a magnetized track 磁悬浮列车 |
| boast | ［bəust］ | $v t$ ．to have sth．that is impressive and that you can be proud of 以有．．．．．．而自豪 |
| infrastructure | ［＇infrestrıktfə］ | $n$ ．the basic structure or features of a system or organization基础设施，基础建设 |
| construction | ［kən＇strıkfn］ | $n$ ．the process or method of building or making sth．建造，建筑物 |

