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Industrial management

## Interpreting data

## Illustrating data

Describing a graph or chart
Writing about data
Avoiding repetition(3).

## -STUDY SKILL Interpreting data

 Many scientific and academic texts contain statistics. These are often illustrated in graphs or charts.Referring to graphs and charts while you are reading will help you to understand the text, and interpret the statistical data better

- ■ Skim the titles of the text and graphs and charts to get a general idea.
- ■ Read the description of the horizontal and vertical data.
- ■ Look at the graph or bar chart. Ask. yourself question:

What is the general picture or trend?
Are there any unexpected or trend?.

- As you read the text, refer to the appropriate part of the diagram. Compare the information in the text with the information in the graph and charts.


## Number of International Tourists 2009



## Tourist Destinations 2005



1- This graph shows the number of international At the start of the year, there were approximately ${ }^{1}$ Tourists in millions, from January to December 2009.At the start of the year, there were approximately ${ }^{2} 20000$ international tourists. This number rose by $50 \%$ in ${ }^{3}$ February to about 30 million. The number remained stable until March. Then it grew steadily to 40 million by April and this increase continued to the beginning of May. Between the beginning of May and the beginning of June, there was only a very slight increase, and then a dramatic rise in July and ${ }^{4}$ August reaching a peak of ${ }^{5} 140$ million tourists around the world. Then, in September it dropped suddenly to about 100 million, followed by a steady fall to the lowest point in 6 November At the end of the year the number of tourists rose steadily to around 40 million. Overall, the graph shows that the most popular period for international holidays is July and ${ }^{7}$ August The least popular time is ${ }^{8}$ November and the beginning of the year, but there is a slight increase in ${ }^{9}$ December.

2-The bar chart shows the top ten most popular international tourist destinations in 2009. The favourite holiday destination was ${ }^{10}$ France which about 67 million people visited in 2005. There was a drop of about $30 \%$ to the second most liked holiday spot, the USA, with about 47 million visitors. In ${ }^{11}$ Third place was Spain, with around 43 million tourists a year. This was followed by ${ }^{12}$ Itaiy and the UK,. There were fewer visitors to Turk and ${ }^{13}$ Mexice in seventh and eighth place respectively; only about ${ }^{14} 20$ million to each country and The ninth tenth places were taken by Malaysia and Mexico . They received between ${ }^{15} 18$ million about tourists each.

1- Write the words from the box in the table. Fall drop rise remainsteady increase Decrease fluctuate remainstable grow

| go up | go down | go up and | stay the same |
| :--- | :--- | :--- | :--- |
| down |  |  |  |

2- Read STUDY Skill Answer the questions. Use a dictionary to check the answers.

1. Which words are both verbs and nouns ?
2. Which verbs are regular?

- STUDY SKILL Avoiding repetition(3)
- The language used to describe graphs can be - repetitive. To avoid this, use:
- synonyms, e.g. increase = rise
- adjectives + nouns, e.g. slight increase
- verbs + adverbs, e.g. increased slightly

3- Look back at the text on page 59 to complete the table with phrases.

## adjectives + nouns

a steady growth
a slight increase a dramatic rise
a sudden drop
a steady fall

## Verbs + adverbs

grow/ grew steadily increased slightly rose dramatically drop/dropped suddedy fell steadily

4- Mach an expression from exercise 3with the graph



4- A sudden drop


5- a steady growth

## 5-Complete the expressions with adjectives from exercise 3 .

1. A dramatic rise (or fall) is both large and fast.
2. A steady growth (or drop) is small, slow, and regula.
3. A slight increase (or decrease) is smal.
4. A sudden drop (or rise) is fast and unexpected.

## STUDY SKILL Illustrating data

Graphs and bar charts are used to show different ways of illustrating data.

Graphs are often used to show changeoveı a period of time.

■use prepositions of time:
in 2005, at the beginning,
between May and June
Bar charts are often used to make comparisons.

■use comparatives: fewer visitors, and superlatives, e.g. the most popular Use adjective + noun and verb + adverb



2- Look at the bar chart. Complete the text using the words in the box.

Fewer largest more same smallest than
This bar chart shows the percentage of French, Russian, and Japanese tourists visiting my country. In 1995 the ${ }^{1}$ largest percentage, $15 \%$, of foreign visitors came from Russia. There were $5 \%{ }^{2}$ Fewer visitors from France and the ${ }^{3}$ Smallest group (5\%) were from Japan. This changed significantly in 2000, when there were ${ }^{4}$ More French visitors (12\%) ${ }^{5}$ Than Russians. Then, in 2005 there was a huge increase in the number of Japanese tourists, who formed the largest group (14\%). The percentage of Russian and French visitors was the 6 at $12 \%$.

Overall, the percentage of French and Japanese visitors increased between 1995 and 2005, whereas the percentage of Russian tourists fell.

## Nationality of Tourists



## Number of Students at University



4-Draw a graph or a bar chart to illustrate the data in $a$ and $b$ Write a description for each set of data and give the descriptions titles. Write about 120

## STUDY SKILL. Describing a graph or chart

Students are often required to transform data from a graph or chart into text. Always:

- say what the graph or chart shows.
- describe the main changes.
- summarize the major trends and/or high and low points.
Vary the vocabulary you use.
a. The amount of time needed for an average worker to earn the money to buy 1 kilo of rice.

190075 minutes
192065 minutes
194035 minutes
196020 minutes
198012 minutes
200015 minutes
b. The number of speakers of the major languages of the world.

1. Mandarin Chinese 845,000,000
2. Hindi

366,000,000
3. Spanish

329,000,000
4. English

328,000.000
5.5 Arabic

221,000,000
6. Bengali

181,000,000
7. Portuguese

178,000,000
8. Russian

144,000,000




## REVIEW

1. Read the description of a graph. Replace the words in bold with synonyms from the unit

The graph shows the average cost of a one-week holiday for a family of four people from 1995 until 2005.

In 1995 the average cost of a holiday was $\$ 500$. This increased dramatically in 1996 to $\$ 700$ and then remained stable for the next year. However, in 1998 there was a slight drop to about 5650 . This was followed by a steady rise over the next two years to 5800 by 2000. Between 2000 and 2003, the price rose dramatically again to $\$ 1,500$. It remained steady at this level in 2004 and then there was an increase to a peak of $\$ 1,750$ in 2005.

Overall, the graph shows that there has been a continual increase in the price of family holidays except for a slight fall in 1998

2- Write a paragraph describing the graph.

Hotels on Rock Island


3-Use the Internet or reference books to find out in which country/countries the languages are spoken

| Language | Country\countries |
| :--- | :--- |
| Mandarin Chinese | China |
| Hindi | India |
| Spanish | Spain, Argentina Chile, Venezuela, <br> Mexico, etc. |
| English | UK, USA, Canada, New Zealand, <br> Australia, etc. |
| Arabic | Saudi Arabia UAS, Jordan, Syria, <br> Egypt, Iraq, etc. |
| Bengali | Bangladesh |
| Portuguese | Portugal, Brazil, Angola, <br> Mozambique, etc. |
| Russian | The Russian federation |

