HSC Tough Skills GTA NSW 2019

Graphs and Statistics

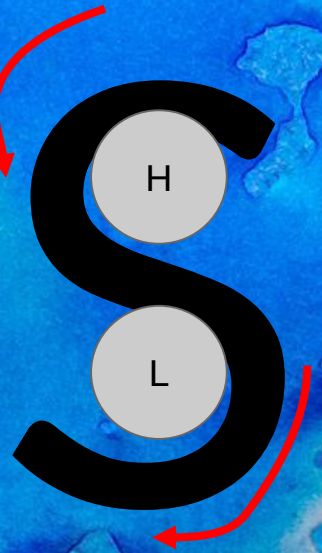
Students learn to analyse graphs and statistics by:

- calculating the rate of increase or decrease between two points
- estimating the value of proportional circles of different size using a key
- estimating the v… …fferent size
- identifying the th… …the line scale of each
- stating the 'mix'
- identifying cluste…
- constructing and…
- interpreting frequency distributions and diagram…
- reading and interpreting logarithmic and semilogarithmic …aphs
- interpreting and analysing population pyramid data.

Kahoot!

General tips

- Recognise the conceptual difficulty of these skills
- Give students regular and consistent practice
- Be confident in yourself
- Incorporate skills into content analysis



Percentage increase

$$\text{Percentage Change} = \frac{(\text{Value 2} - \text{Value 1})}{\text{Value 1}} \times \frac{100}{1}$$

- Negative values for decrease, positive for increase
- Use for populations, ecosystem areas, telecommunication values… many possibilities!

Kinshasa grew from 9.8 million in 2013 to 11.8 million in 2017. What is the percentage increase?

= (11.8 - 9.8) / 9.8 x 100

= 2 / 9.8 x 100

= 0.204 x 100

= it grew by 20.4%

Rate of change

Rate of change = Change in variable / Time

A car travels 180km in 3 hours. What is the rate of change?

Rate of change = 180km / 3hr

= 60km/hr

A car travels 180km in 3 hours. What is the rate of change?

Make sure the period of time is equal if trying to compare rate of change.

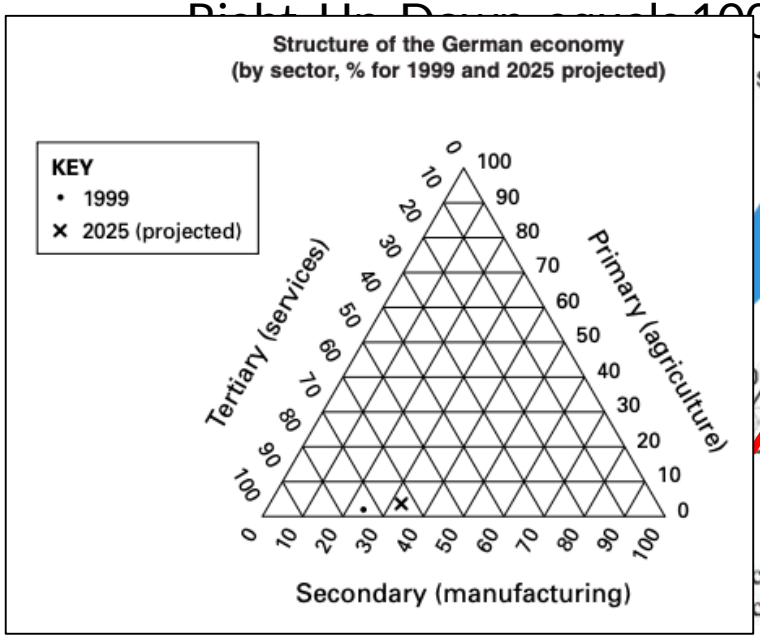
A car travels 180km in 3 hours. What is the rate of change?

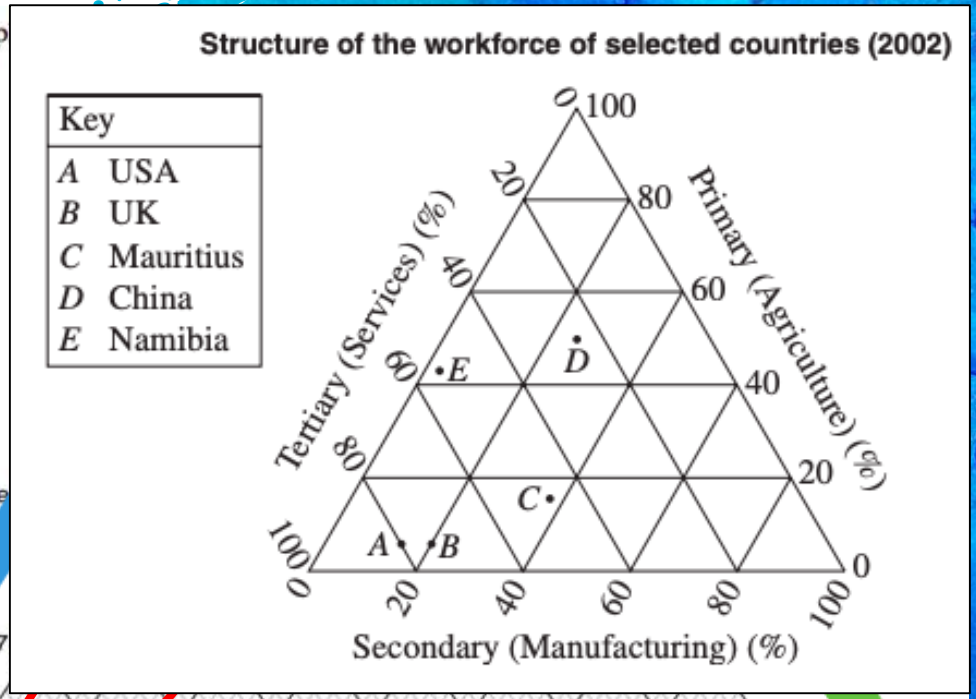
Many changes in distance

Ternary g

For Students, remember:

- Finding values on tr
- 1. R.I.U.D.E. Method
- Finding a mix of valu
- Right, Up, Down equals 100





16 A ternary grap
is shown.

Service

First

country has 3% of its people employed in agriculture, 34% in industry and 63%
ces?

Semi-logarithr

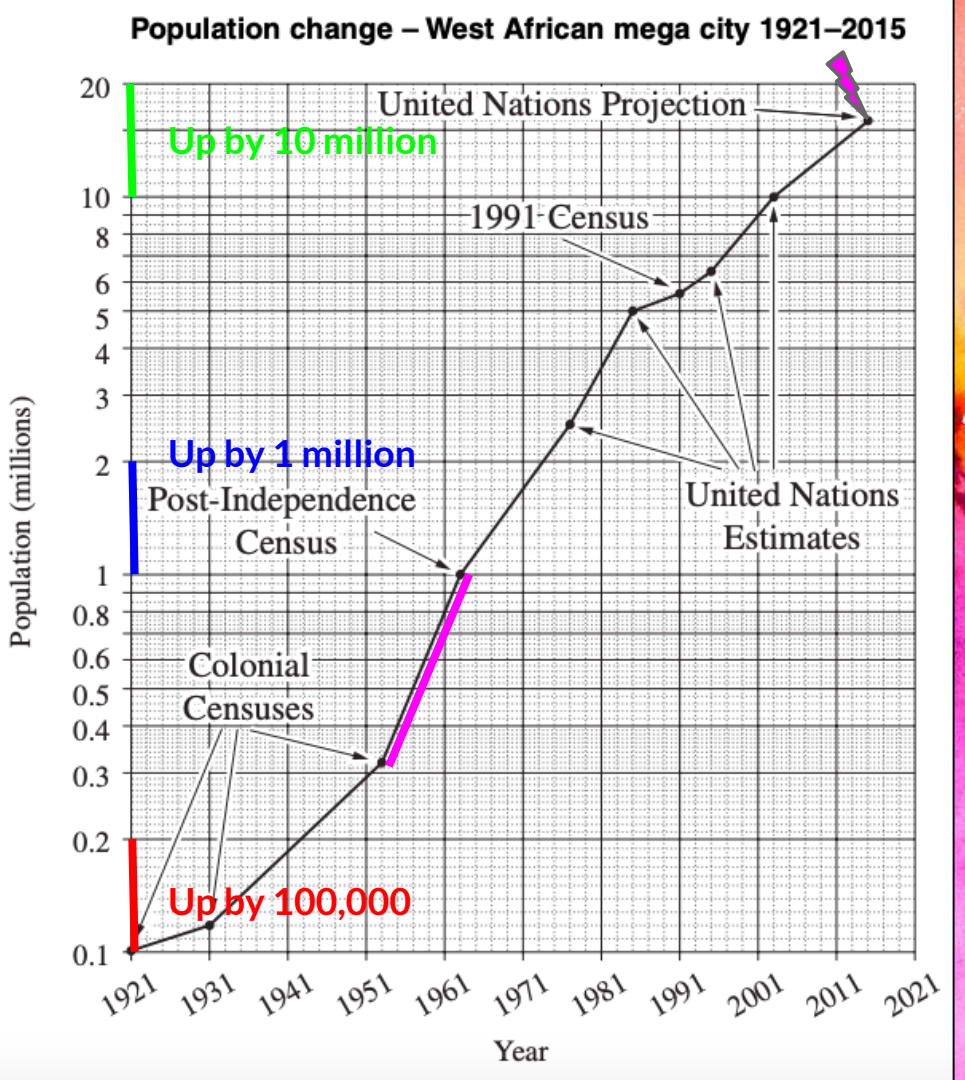
2006 HSC Q17a-b.

a. What is the UN Projection for the city in 2015?

b. Which period had the greatest rate of increase?

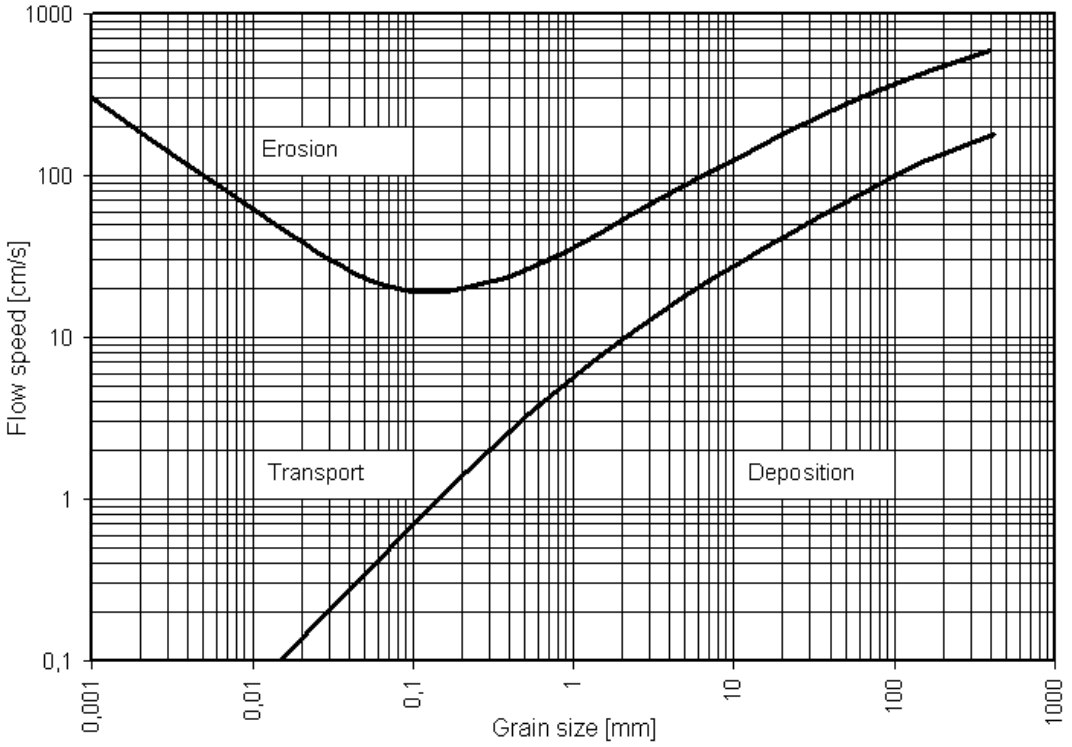
× Steepness (gradient) of gr
increase.
× Check the scale for units (
× Logarithmic graphs do not

- × 16 million in 2015
- × 1953 - 1963 had the fastest growth. It grew from 300,000 - 1 million people



Logarithmic Graphs

- Same rules apply
- Both axes are logarithmic
- E.g. Hjulström curve for rivers



Integrating Skills

- Easy to make regular pre-tests or understanding checkpoints
- Use an Learning Management System
  - Google Forms is great and free.
- If you cannot find examples make them up.
- Build the analysis aspects of your lessons from the graph or statistical tool

Pop Quiz!

tinyurl.com/2019GTASKILLS

Example Questions

Work through the questions with your table.

See you this afternoon!

- Later this afternoon Drew Collins will present the use of photos, maps and diagrams

Remember

- Skills provide a great way for your students to build confidence.
- The use of tools define Geography