

KNOWLEDGE ORGANISER

WORLD STUDIES

Year 7 Geography

Term 5: South America Part 1

Name:

Class Teacher:




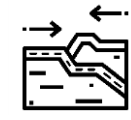
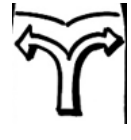











| Big Question | Task | Due Date |
|----------------------|--|----------|
| 2 | Complete Homework 1 on page 6 | |
| 4 | Complete Homework 2 on page 9 | |
| 7 | Complete Homework 3 on pages 12 | |
| Voluntary (5 HPs) | Wider Reading: Amazon deforestation (Page 19) | |
| | Wider Reading: Classifying countries (Page 20) | |
| | Revise for mid unit assessment | |



ENQUIRY QUESTIONS

1. What is the continent of South America like?
2. What is the structure of the Earth?
3. What is continental drift?
4. How do tectonic plates move?
5. Where do volcanoes and earthquakes occur?
6. What is the physical of geography of Brazil like?
7. What is the historical geography of Brazil like?
8. How developed is Brazil?
9. What are the challenges of urbanisation in Rio de Janeiro?

GLOSSARY

| Key term | Icon | Definition |
|-------------------------------|---|---|
| Continental crust |  | Ancient, less dense and makes up the continents |
| Conservative plate boundary |  | Plates slide past each other in opposite directions, or in the same direction but at different speeds. |
| Convergent (subduction) |  | Also known as a destructive plate boundary, usually involves an oceanic plate and a continental plate. |
| Convergent (collision) |  | If two continental plates collide, neither can sink and so the land buckles upwards to form fold mountains. |
| Divergent plate boundary |  | Also known as a constructive plate boundary, the plates move apart from one another. |
| Development |  | Improved standard of living and quality of life |
| Human development Index (HDI) |  <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> Health</div> <div style="text-align: center;"> Wealth</div> <div style="text-align: center;"> Education</div> </div> | |
| Mantle |  | Semi-molten rock (where magma and lava come from and this is the thickest layer 84% of earth's volume) |
| Oceanic crust |  | <200 million years old, dense, oceans float on top of it (because the crust pushes deeper into the mantle) |
| Over population |  | Too many people moved to the cities because of the attraction of the pull factors |
| Pangea |  | Around 225 million years ago, all seven of our continents made up one big supercontinent known as the Pangea . |
| Pull factors |  | Reasons people are drawn to cities from rural areas |
| Urbanisation |  | Increased proportion of people living in urban areas compared with rural areas |

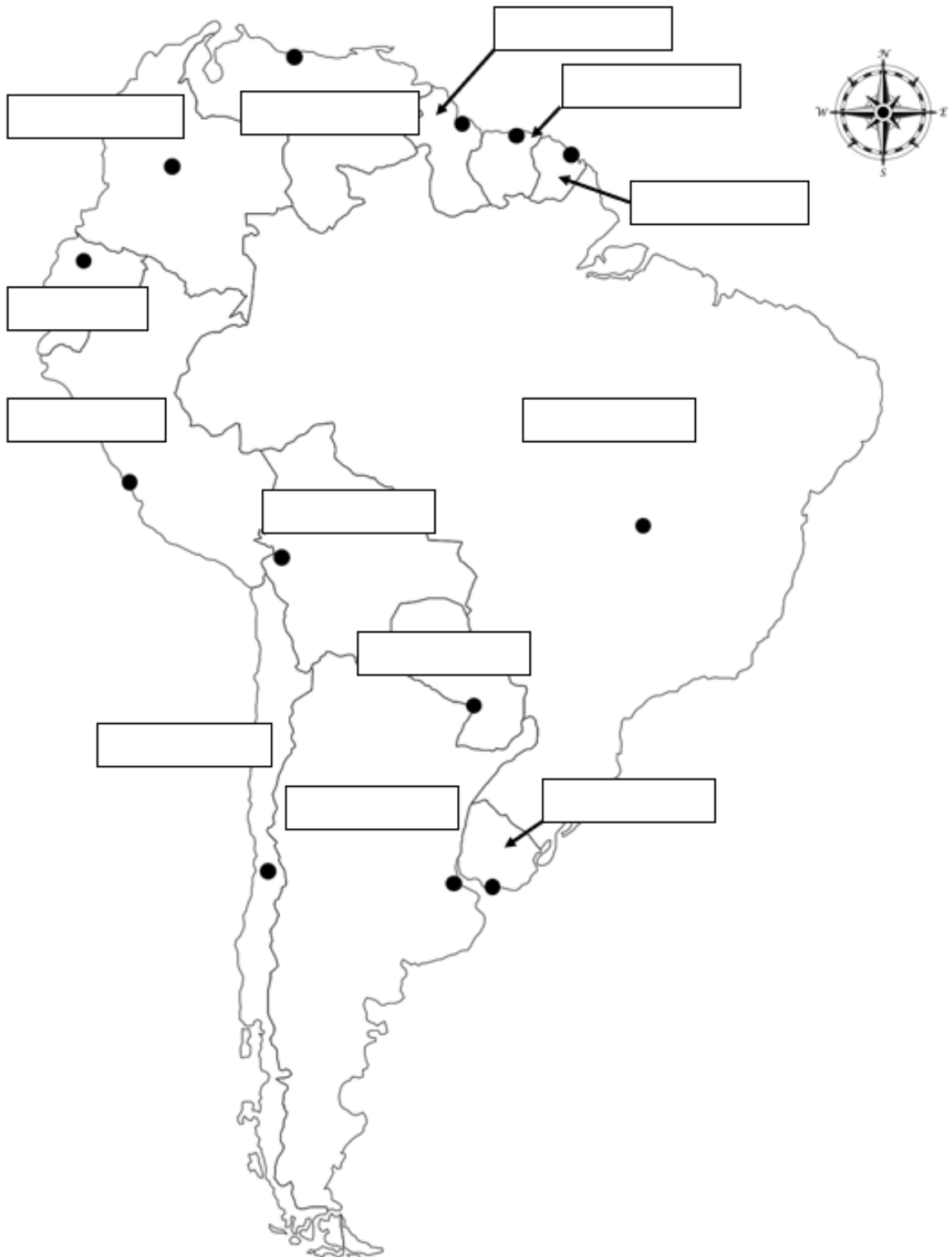
BQ1. WHAT IS THE CONTINENT OF SOUTH AMERICA LIKE?

- South America is the fourth largest continent in the world.
- There are 14 countries in South America including the Falkland islands



HOMEWORK 1

Using the map on page 2 you need to learn the spelling and location of **countries and capitals in South America**. You should practice on the blank map, covering the answers to test yourself.

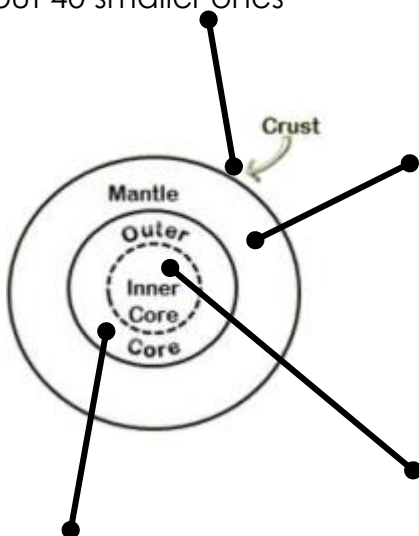


BQ2. WHAT IS THE STRUCTURE OF THE EARTH?

Around 4.5B years ago cosmic dust and gas began to combine to form the Sun and all of the planets in our solar system including Earth.

Due to gravity as the earth formed it split into layers. The heavier metals fell to the centre and the lighter rocks formed on the outside. We now know that the earth has FOUR main layers.

The lithosphere (crust) is where we live and it's divided into seven major tectonic plates plus about 40 smaller ones



The **mantle** has the hottest rock when it is nearest to the core (5,000°C).

The rock is semi molten and contains an area known as the **asthenosphere**.



The **inner core** is solid and has a temperature of 6,000°C, as hot as the surface of the sun.

The area heating all of these up is the **outer core** - made up of rocks containing iron and nickel.

There are two different types of crust:

Continental lithosphere is:

- Older – most is over 1,500 million years old.
- Less dense – so cannot sink
- Cannot be renewed or destroyed.



Oceanic lithosphere is:

- Newer – most is less than 200 million years old
- Denser – so therefore can sink
- Can be renewed and destroyed



BQ3. WHAT IS CONTINENTAL DRIFT?

1912 – Alfred Wegener proposes a theory of Continental Drift

Proposes that 229 million years ago there was a super continent called **Pangea**

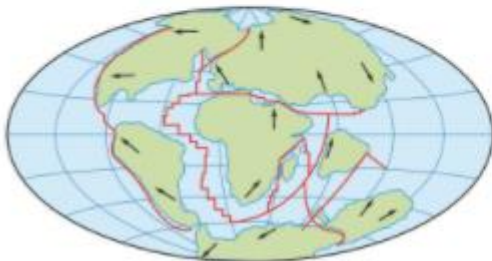
200 million years ago



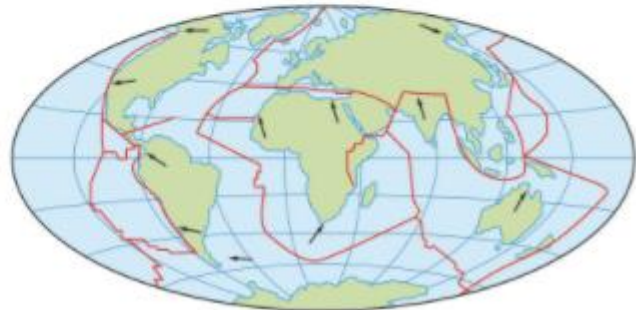
135 million years ago



65 million years ago



Today



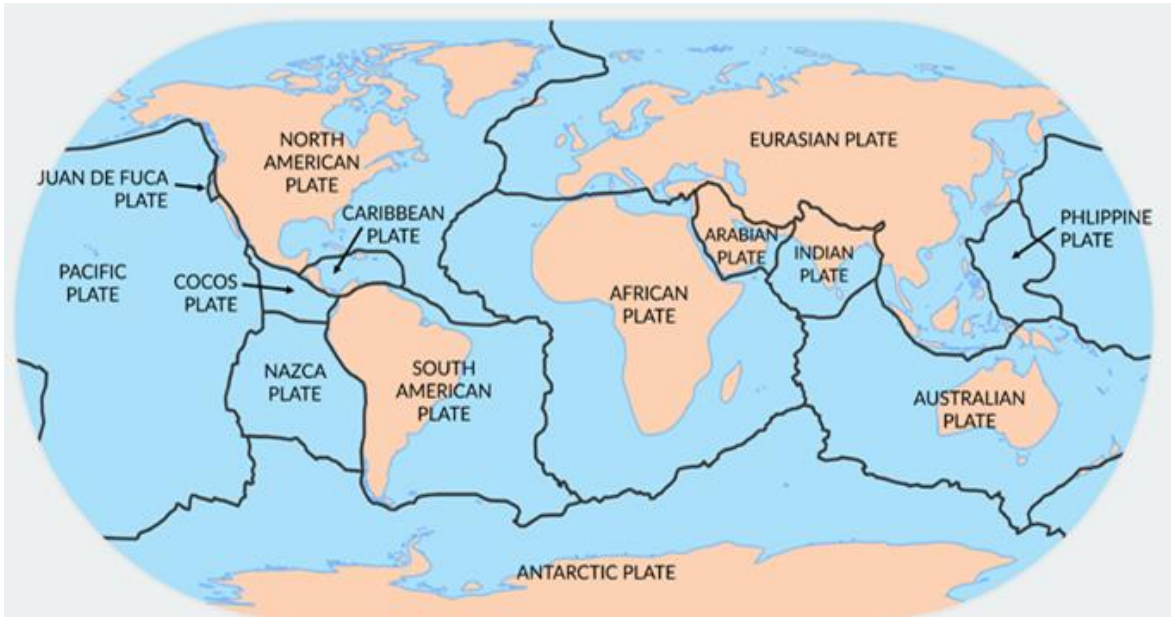
Similar animal **fossils and rock types** were found on different continents – be believed it would have been impossible for these animals to swim across oceans.

Evidence that there had been **an Ice Age** at the same time in the past across parts of the continents, even the hottest ones

A pattern in the formation of some of the **old mountain ranges** and matching fossil remains on different continents.

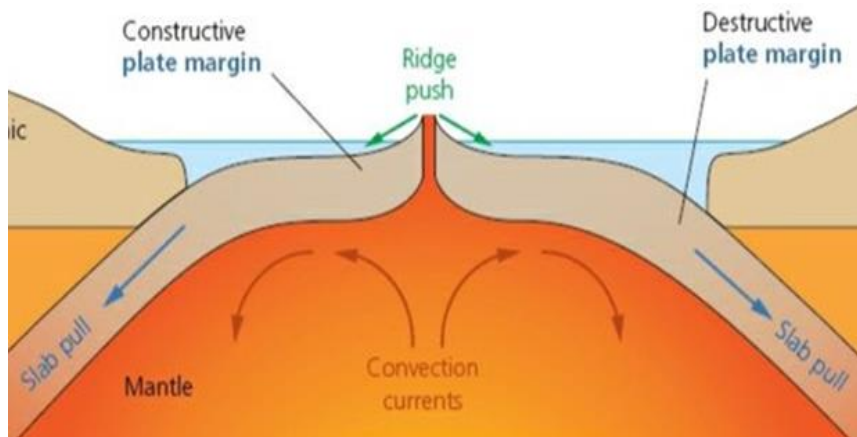
BUT he couldn't explain what was moving these great plates.

BQ4. HOW DO TECTONIC PLATES MOVE?



Second World War, the United States Navy mapped the ocean floor discovering huge mountain ranges called **mid-ocean ridges**.

The mountain ranges (known as ocean ridges) and ocean trenches mark the boundaries of what we now know to be tectonic plates.



Originally thought to be driven by heat from the core creating convection currents



Now due to Slab Pull – the weight of the oceanic lithosphere pulls the whole plate down when it is subducted.



Gravity causes the mid-ocean ridge to sink down and spread out = ridge push

Where plates pull apart, new crust is created

HOMWORK 2

Try to answer all of these key knowledge questions. Then check your answers using the answer page. These are some of the questions that will be in the knowledge quizzes and the mid and end of unit tests.

Questions in *italics* are from older work.

| Key knowledge question | Your answer |
|---|-------------|
| How many layers of the earth are there? | |
| What is the core made from? | |
| How thick is oceanic and continental crust? | |
| What shape is the earth? | |
| Who proposed continental drift? | |
| What is biological evidence for continental drift? | |
| What was the name of the proposed supercontinent? | |
| How were tectonic plate boundaries first discovered? | |
| What is the main force driving plate movement? | |
| Where does the earth's internal heat come from? | |
| <i>Which type of rainfall is most common in the UK?</i> | |
| <i>What are the 4 LAWS of climate?</i> | |
| <i>What type of waves deposit material?</i> | |

BQ5 & BG6. WHERE DO VOLCANOES AND EARTHQUAKES OCCUR?

Divergent plate boundaries



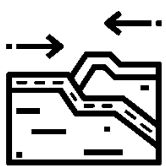
At a divergent plate boundary - also known as a constructive plate boundary, the plates move apart from one another. When this happens the magma from the mantle rises up to make (or construct) new crust. The movement of the plates over the mantle can cause earthquakes. Rising magma can also create shield volcanoes.

Convergent plate boundary (destructive)



A convergent plate boundary also known as a destructive plate boundary, usually involves an oceanic plate and a continental plate. The plates move towards one another and this movement can cause earthquakes and volcanoes.

Convergent plate boundary (collision)



If two continental plates collide, neither can sink and so the land buckles upwards to form fold mountains. This is called a collision boundary. Earthquakes can occur at collision boundaries. Huge fold mountains, violent earthquakes, NO volcanoes

Conservative plate boundary



The two plates collide pushing the land upwards to form **high mountains** = severe earthquakes but not volcanoes.

BQ7: WHAT IS PHYSICAL GEOGRAPHY OF BRAZIL LIKE?

The **Amazon River** and **rainforest** dominates the **north** of Brazil. The Amazon River has its source in Peru and flows through Brazil to the mouth at the Atlantic Ocean. The Amazon River is 6,840km long, making it the world's second longest river (the River Nile is first).



The **Brazilian Highlands** are a mix of ancient hills, high flat areas and mountains. They rise sharply from the coast, forming a steep gradient called the Great Escarpment. The Brazilian Highlands are in the south and east of the country



The **Amazon Rainforest** covers around 40% of Brazil and is the largest area of tropical rainforest in the world. The rainforest is special because it is home to the world's greatest biodiversity, much of which is yet to be discovered.



Brazil's **climate** is very diverse given its size. The majority of Brazil is within the Tropic of Cancer and the Tropic of Capricorn so it is hot all year. The average temperature of Brazil is 28°C.

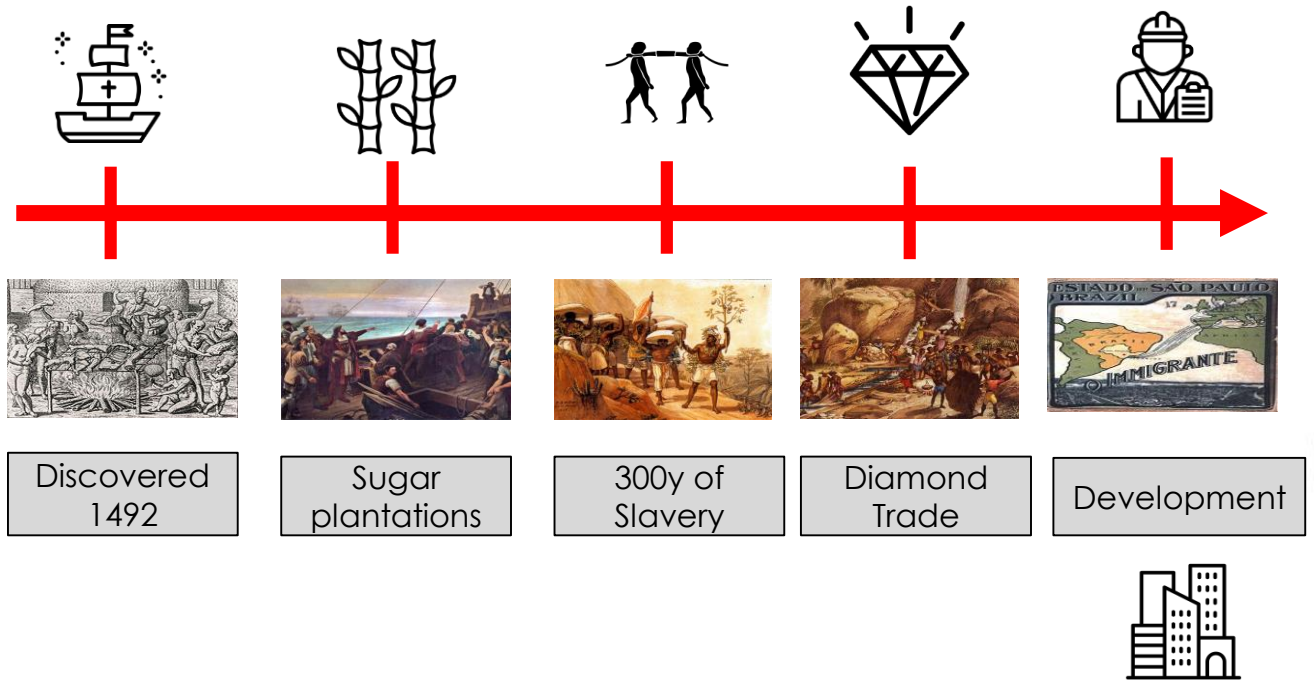
HOMWORK 3

Try to answer all of these key knowledge questions. Then check your answers using the answer page. These are some of the questions that will be in the knowledge quizzes and the mid and end of unit tests.

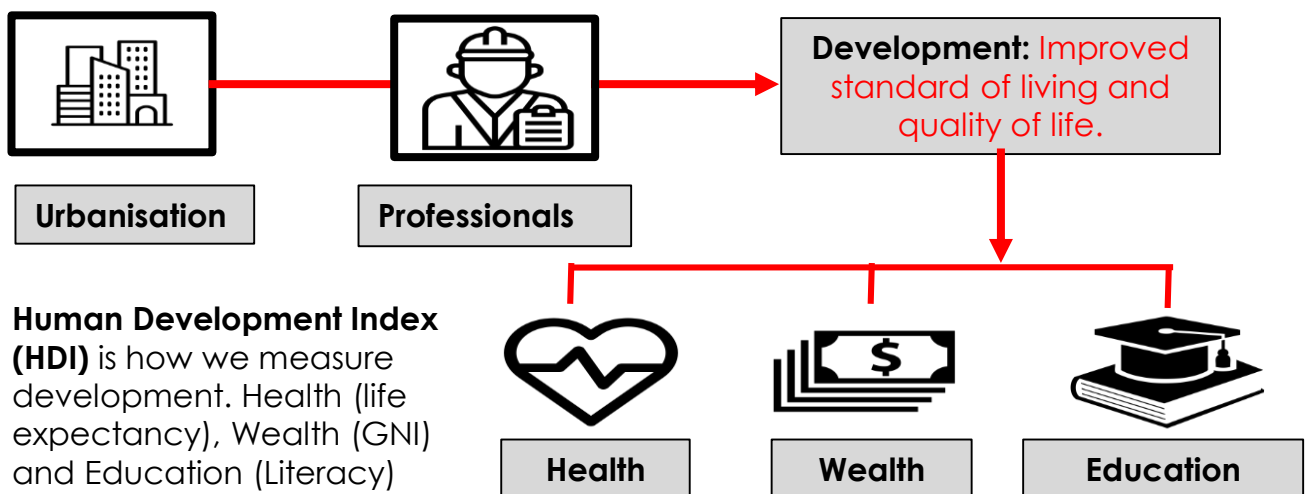
Questions in *italics* are from older work.

| Key knowledge question | Your answer |
|---|-------------|
| Which 2 types of boundaries have no volcanoes? | |
| When did the earth form? | |
| What is the oceanic plate made of? | |
| Which type of crust is more dense? | |
| Which way are the plates moving at a divergent boundary? | |
| What is the capital of Brazil? | |
| Name two of Brazil's ecosystems | |
| How much of Brazil is covered in rainforest? | |
| When is the wet season and how wet is it? | |
| What does biodiversity mean? | |
| <i>What is wave refraction?</i> | |
| <i>What is transport of sediment along a beach called?</i> | |
| <i>What types of rocks are found on a concordant coastline?</i> | |

BQ8: WHAT IS THE HISTORICAL GEOGRAPHY OF BRAZIL?



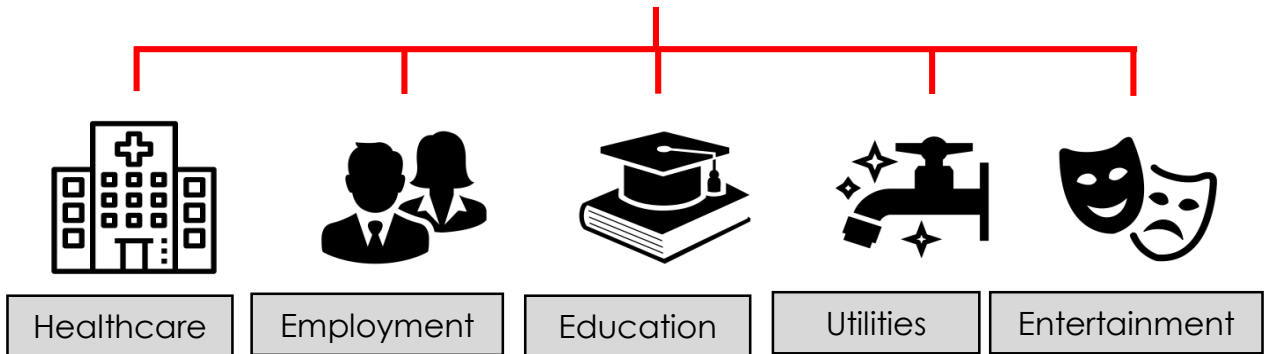
How does urbanisation lead to development?



BQ9: HOW DEVELOPED IS BRAZIL?

Pull factors of urban areas

Pull Factors (reasons people are drawn to cities from rural areas)



After slavery, many Europeans started to migrate to Brazil (1870-1930 3 million migrants). The majority worked in agriculture before urbanisation. During urbanisation, more builders, teachers, doctors and engineers were needed. Population today is 209 million.

| Indicator | Brazil | United Kingdom |
|--------------------------------------|-------------|----------------|
| GDP (US\$) | 2.06T | 2.62T |
| Population (millions) | 212.5 | 67.8 |
| Urban population | 86.6 | 83.4 |
| GDP per capita (US\$) | 15.5K | 43.3k |
| Life expectancy (years) | 75.9 | 81.3 |
| Literacy (percent) | 92 | 99 |
| (Human Development Index) HDI | 0.76 | 0.92 |



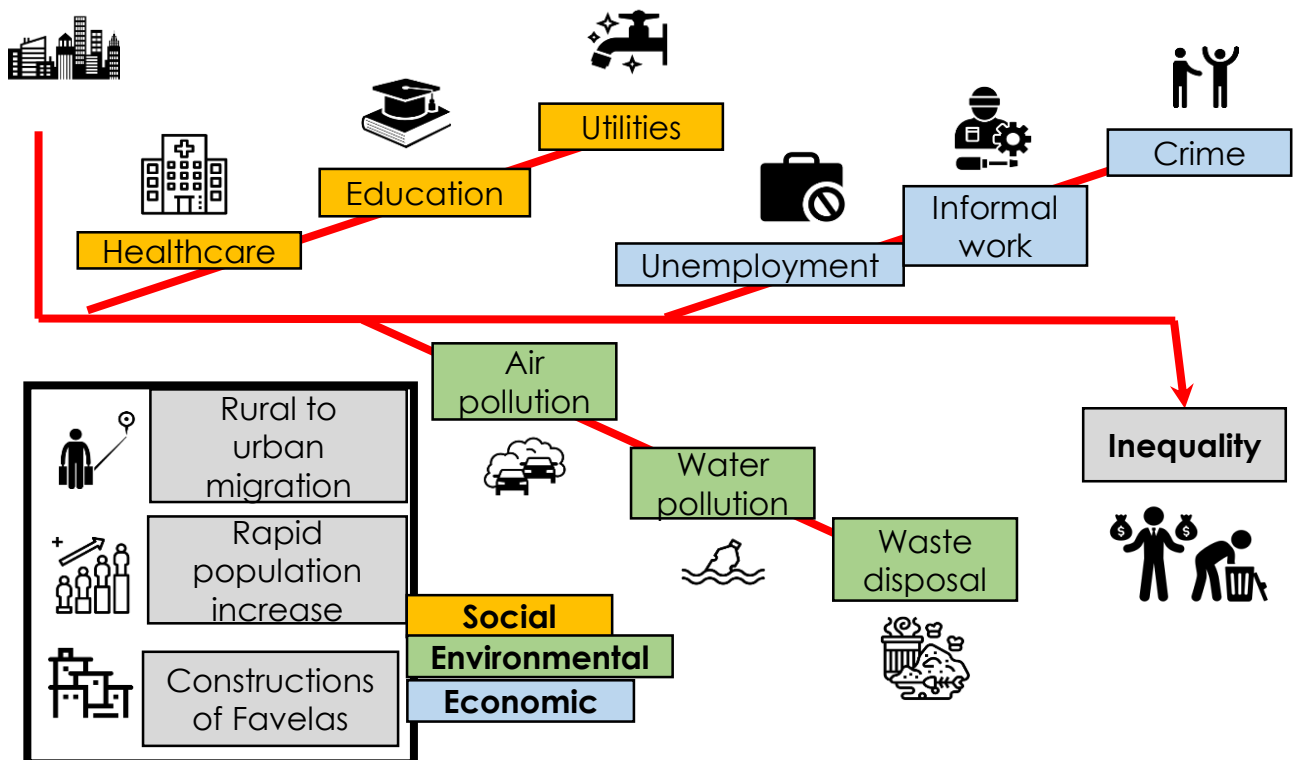
BQ10: WHAT ARE THE CHALLENGES OF URBANISATION IN RIO DE JANEIRO?

Rio de Janeiro is a large city of 11.7 million people situated on the south east coast of Brazil in South America. It is the second largest city in Brazil (after São Paulo), and is the 39th largest city in the world. It was the capital city of Brazil up until 1960, when it was replaced by Brasília.



Urbanisation is the increasing proportion of people living in towns and cities. It occurs as a result of **migration** and **natural increase** (births)

The challenges facing Rio de Janeiro



WIDER READING: 5 HOUSE POINTS



The New York Times

06/06/20

AMAZON DEFORESTATION SOARS AS PANDEMIC HOBLES ENFORCEMENT

A rise in illegal deforestation heightens the risk of fires in the Brazilian rainforest even more destructive than those that drew global outrage last year.

Since coming to office, President Jair Bolsonaro of Brazil has enabled increased razing of the Amazon rainforest.

Now, the coronavirus has accelerated that destruction.

Illegal loggers, miners and land grabbers have cleared vast areas of the Amazon with impunity in recent months as law enforcement efforts were hobbled by the pandemic.

Those recently cleared areas will almost certainly make way for a rash of fires even more widespread and devastating than the ones that drew global outrage last year. The newly cleared patches are typically set ablaze during the drier months of August to October to prepare the land for cattle grazing, often spiraling out of control into wildfires.

"The trend line is shooting upward compared to a year that was already historic in terms of a rise in deforestation," said Ana Carolina Halluc Bragança, a federal prosecutor who leads a task force that investigates environmental crimes in the Amazon. "If state entities don't adopt very decisive measures, we're looking at a likely tragedy."

The fallout from the pandemic has exacerbated the ecological degradation set in motion by government policies under Mr. Bolsonaro, who favours expanding commercial development in the Amazon and views environmental regulations as a hindrance to economic growth. But some career civil servants are still working to enforce environmental protections.

An estimated 464 square miles of Amazon tree cover was slashed from January to April, a 55 percent increase from the same period last year and an area roughly 20 times the size of Manhattan, according to Brazil's National Institute for Space Research, a government agency that tracks

deforestation with satellite images. Already last year, deforestation in the Amazon had reached levels not seen since 2008.

At the same time, the coronavirus has killed more than 34,000 people in Brazil, which now is recording the highest daily number of deaths in the world. It has also fueled political polarization and dominated headlines and policy debates in recent months, scripsing the increased damage to the rainforest.

Environment Minister Ricardo Salles, who supports Mr. Bolsonaro's loosening of environmental regulation, said in late April that he saw the pandemic as an opportunity to reduce restrictions while attention was focused elsewhere.

"We need to make an effort here during this period of calm in terms of press coverage because people are only talking about Covid," he said during an April 22 cabinet meeting.

The association that represents government environmental workers issued a statement calling Mr. Salles a "criminal" who has been "hollowing out" his own ministry.

Enforcement actions by the country's main environmental protection agency, the Brazilian Environmental and Renewable Natural Resources Institute, or Ibama, fell sharply during 2019, Mr. Bolsonaro's first year in office.

In 2019, Ibama reported 128 instances of environmental crimes, a 55 percent decrease from the year before. The amount of illegally logged timber seized by the agency fell by nearly 64 percent from 2018 to 2019, according to the document.

Roughly 50 percent of the tree cover lost during the first four months of this year was on public land, according to Ipam Amazonia, an environmental research organization.

Fearing a new wave of international condemnation, the Bolsonaro administration in May dispatched a few thousand troops to the Amazon and tasked them with preventing environmental crimes for 30 days.

"We don't want Brazil to be portrayed in front of the rest of the world as an environmental villain," Vice President Hamilton Mourão said as the initiative was launched.

In an emailed statement, the Defense Ministry said it had devoted 3,800 service members, 11 aircraft, 11 boats and 180 vehicles to support the mission. The operation, it said, "clearly demonstrates Brazil's firm determination to preserve and defend the Amazon."

Environmental activists say they welcome any increase in enforcement, but most see the military operation as a public relations ploy that will not change the trajectory of deforestation or lead to punishment for the key people driving the destruction.

Brazil's record on environmental matters during the Bolsonaro era has set off calls for boycotts of Brazilian exports and threatens the implementation of a trade agreement between the European Union and four South American nations.

Adriano Karpuna, an Indigenous leader in Rondônia state where illegal deforestation has increased, said his community feels increasingly vulnerable. "They launch a big operation but it's just to put it on the news," he said. "They never actually arrest anyone."

Mr. Karpuna said the ease with which illegal loggers and miners are destroying the forest is putting remote Indigenous communities — including uncontacted tribes — in grave danger.

"The dynamic can set in motion a genocide by spreading the coronavirus," he said. "The Brazilian government will be responsible."

7 What was Minister Ricardo Salles opinion?

8 What is Ibama and how has their work changed in recent months?

9 What has the Defense Ministry done?

10 What was the Indigenous leaders opinion?

11 Summarise this article.

Guided READING

1 Who is the president of Brazil?

2 What has happened to the Amazon in recent months?

3 Why has there been a change in deforestation in recent months?

4 Why is cleared land set on fire?

5 Why isn't the president stopping the deforestation?

6 How has the tree cover changed from January to April?

WIDER READING: 5 HOUSE POINTS

5 What is a classification

6 what are the classifications now

10 Explain the total global changes in trends since 1978

CLASSIFYING COUNTRIES - THE WORLD BANK

Are richer countries polluting more than poorer ones? What progress in poverty reduction has been made in countries affected by fragility and conflict? To help shed light how different groups of countries are doing, the World Bank categorizes countries based on various characteristics, such as geography, lending eligibility, fragility, and average level of income. When it comes to income, the World Bank divides the world's economies into four income groups: high, upper-middle, lower-middle, and low.

The income classification is based on a measure of national income per person, or GNI per capita, calculated using the Atlas method. In 1978, the first World Development Report introduced groupings of "low income" and "middle income" countries using a threshold of \$250 per capita income as threshold between the groups. In the 1983 WDR, the "middle income group" was split into "lower middle" and "upper middle" groups, and in 1989 a "high income" country definition was introduced.

Since then, the thresholds to distinguish between the income groups have been adjusted for prices over time. As of 1 July 2019, low-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of \$1,025 or less in 2018; lower middle-income economies are those with a GNI per capita between \$1,026 and \$3,995; upper middle-income economies are those between \$3,996 and \$12,375; high-income economies are those with a GNI per capita of \$12,376 or more.

Because most parts of the world have experienced considerable economic growth in recent decades, and the classification thresholds are held stable in real terms, there are now fewer low-income countries and more countries have gained middle or high-income status. Just since 2003, the number of low-income countries has nearly halved, declining from 66 to 31 in 2019. The number of high-income countries is currently 80, up from less than 50 in the 1990s. The number of middle-income countries is 107 (60 LMICs and 47 LMICs) and has not changed much as countries have transitioned both in and out of this group.

The changes are even starker when looking at the share of the world population that live in each type of countries. The vast majority (75 percent) of people currently live in countries defined as lower or upper-middle income countries. As large countries, such as India and China, have transitioned from low income countries to middle income countries, the population shares have shifted dramatically. In the 1990s, more than 6 in 10 people of the world's population lived in low-income countries, while today it is just about 1 in 10.

With only a small share of the world currently classified as "low income" and as the thresholds not having changed since 1988 (in real terms), critics argue that these income groups are losing relevance, and are somewhat arbitrary and dated.

Statistical facts don't come to people naturally. Most people understand the world by generalizing personal experiences which are very biased. In the media the "news-worthy" events exaggerate the unusual and put the focus on swift changes. Slow and steady changes in major trends don't get much attention. Unintentionally, people end-up carrying around a sack of outdated facts that you got in school (including knowledge that often was outdated when acquired in school).

1 What is the World Bank?

2 What are the different income levels?

3 Define threshold

4 Describe how the thresholds have changed?

11 What is disparity

12 What is the media's role

9 What is a LMIC - guess

7 What happened July 2019

8 Using your own knowledge, why did this have to change

KEY KNOWLEDGE QUESTIONS

| Key knowledge question | Answer |
|---|---|
| How many layers of the earth are there? | Four (Inner core, outer core, mantle, crust) |
| What is the core made from? | Iron-nickel (inner solid, outer liquid - magnetism) |
| How thick is oceanic and continental crust? | Oceanic 5-8km/Continental 25-60km_ |
| What shape is the earth? | Ellipsoid (Oblate spheroid) |
| Who proposed continental drift? | Alfred Wegener |
| What is biological evidence for continental drift? | Fossils of plants and animals that cannot swim in deep waters have been found on each continent |
| What was the name of the proposed supercontinent? | Pangea |
| How were tectonic plate boundaries first discovered? | During World War Two, the United States Navy mapped the earth's ocean floor |
| What is the main force driving plate movement? | Slab pull |
| Where does the earth's internal heat come from? | Radioactive decay |
| <i>Which type of rainfall is most common in the UK?</i> | Relief rainfall |
| <i>What are the 4 LAWS of climate?</i> | Latitude Altitude Prevailing winds Distance from the sea |
| <i>What type of waves deposit material?</i> | Constructive waves |
| Which 2 types of boundaries have no volcanoes? | Conservative and convergent (continental/continental) |
| When did the earth form? | 4.5 billion years ago |
| What is the oceanic plate made of? | Basalt |

KEY KNOWLEDGE QUESTIONS

| Key knowledge question | Answer |
|---|---|
| Which type of crust is more dense? | Oceanic |
| Which way are the plates moving at a divergent boundary? | Away from each other - Mid Atlantic Ridge |
| What is the capital of Brazil? | Brasilia |
| Name two of Brazil's ecosystems | Brazilian Highlands and Amazon rainforest |
| How much of Brazil is covered in rainforest? | 40% |
| When is the wet season and how wet is it? | December to May. March has the highest rainfall of around 325mm |
| What does biodiversity mean? | Means the number of different types of plants and animals living in a place |
| What is wave refraction? | Wave energy is concentrated on a headland |
| <i>What is transport of sediment along a beach called?</i> | Longshore drift |
| <i>What types of rocks are found on a concordant coastline?</i> | The same rocks lying parallel to the sea |