

Global energy supply and demand

22/03/2018

Do Now

Which regions of the world consume the most energy?



Aim

- To understand that the distribution of global energy is uneven

Global energy consumption

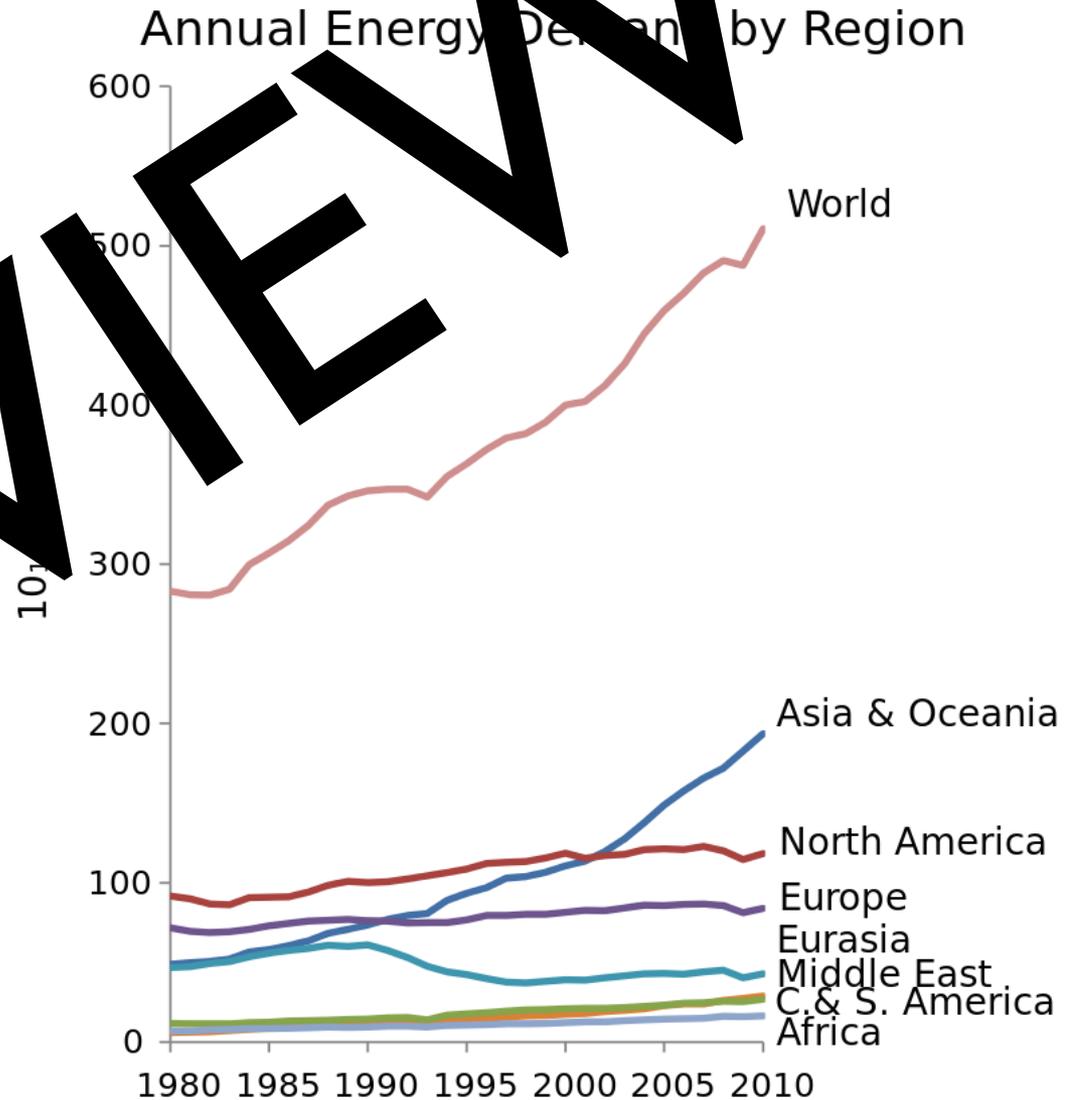
- Some countries consume far more energy than others
- The USA, Canada, much of Europe, Australia and the Middle East use a large proportion of the world's energy
- Energy use is low across Africa and parts of South East Asia

Global energy demand

Comment on
the graph

Ext – Is this what
you would expect
to see?

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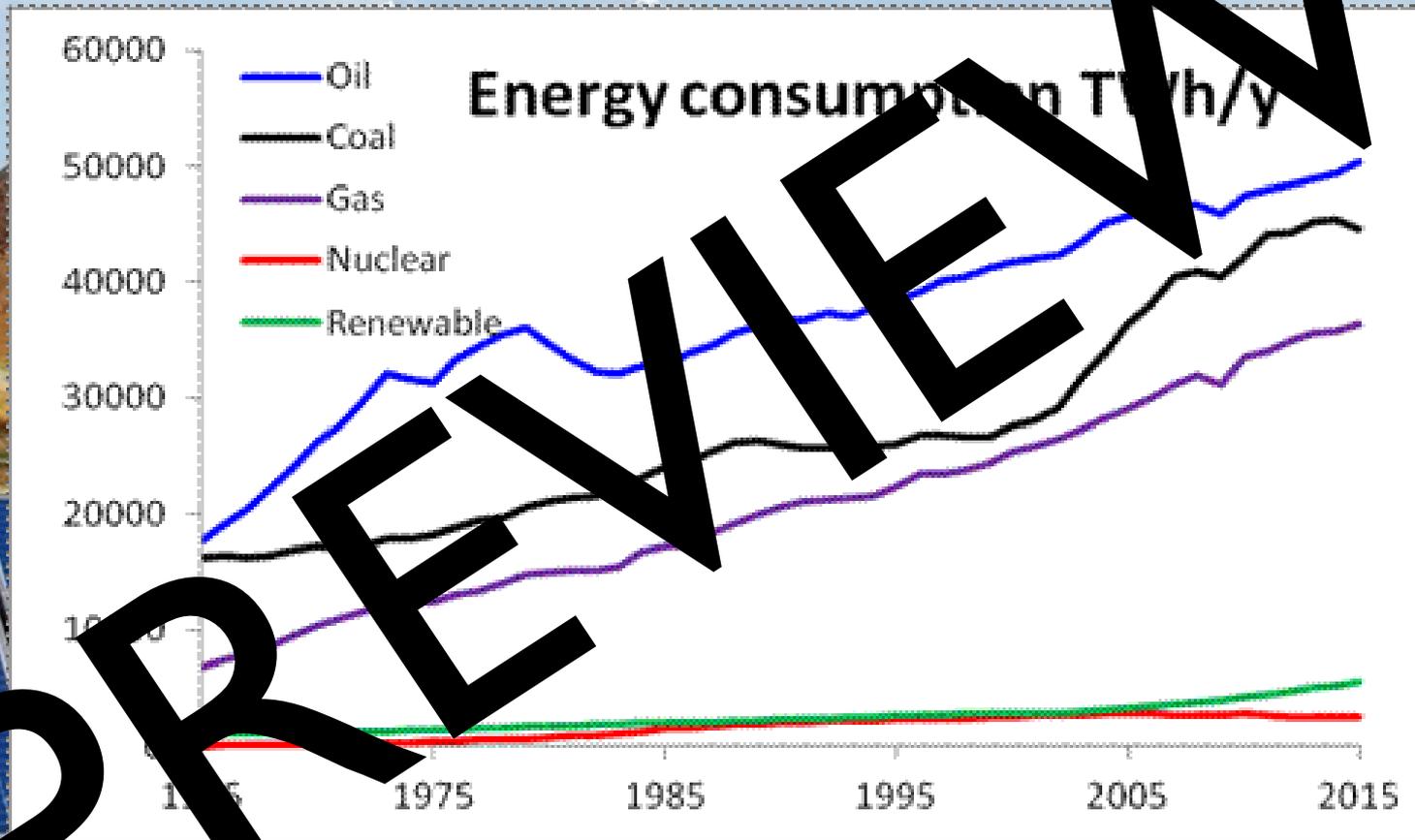


Resources

- Some areas of the world have rich supplies of coal, oil and gas
- Increasing nuclear power is also used in MEDCs

PREVIEW

Describe the graph below



Energy security

- Security = supply (production)
demand (consumption)

PREVIEW

Energy security

- If supply exceeds demand a country has an energy surplus
- Energy insecurity is when demand exceeds supply

Why do you think global energy demand is increasing?

<https://www.youtube.com/watch?v=90J0GI-5ggs>



Task

Mindmap factors effecting global energy supply

Cost to exploit energy. E.g. oil requires a huge investment to pay for pipelines and rigs

Technological advancements. E.g. we can now exploit North Sea oil and gas. Fracking is now also possible.

Geology of the areas and availability of fossil fuels. Coal is formed millions of years ago

Tectonic activity. E.g for the production of geothermal energy. Average energy bills in Iceland are £100 per year.

Political factors such as instability of government, conflict and subsidies

Climate. Without the right climate solar power will be impossible. The correct conditions are also needed for tidal energy and HEP

PREVIEW

Task

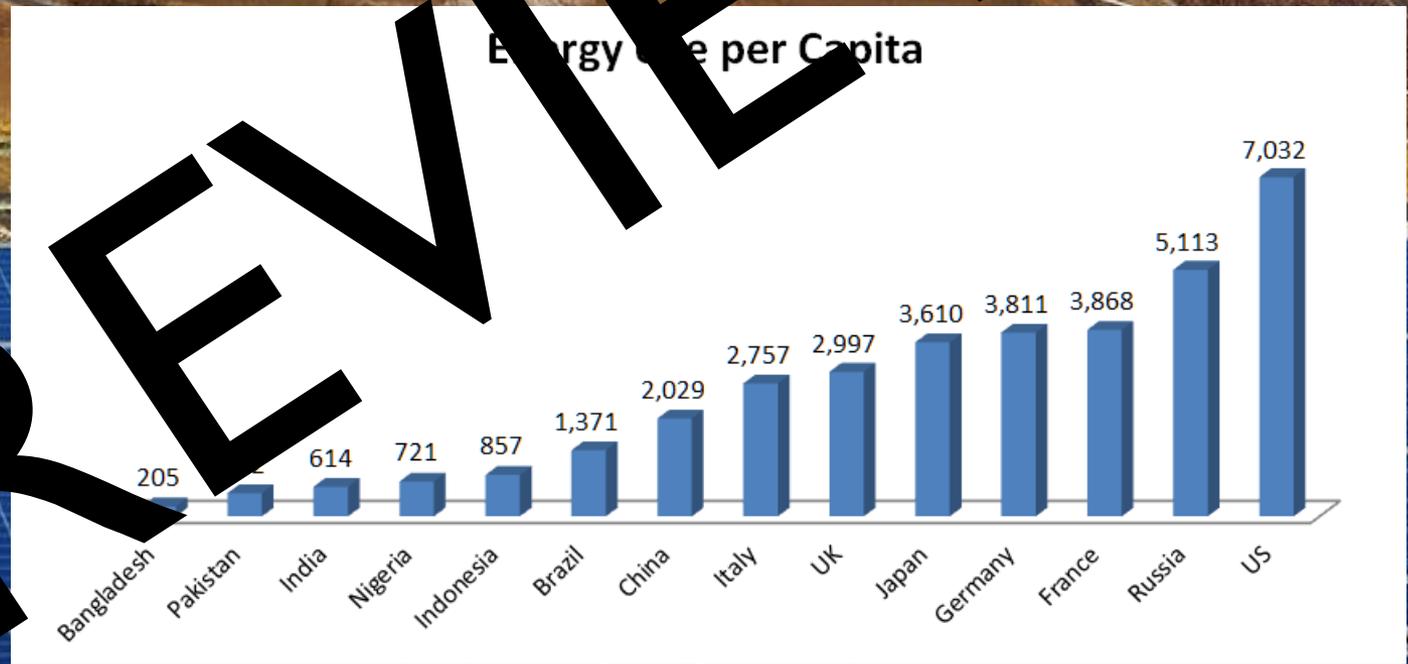
Look at the graph below. Does this show the pattern that you would expect to see?

Why are some countries are the level of energy consumption indicated?

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Ext – How does technology effect energy production?

Plenary

- Write down 3 questions you still have about global energy

PREVIEW

What have we learnt today?

Aim

- To understand that the distribution of global energy is uneven

What we will learn next...

- Impacts of energy insecurity

