Year 12 Summer Work

Welcome to the Cambridge Pre U Geography course at Pate's.

The course is built on aims to:

- prepare you for university and beyond
- support independent and self-directed learning
- encourage you to think laterally, critically & creatively, and to acquire good problem-solving skills
- promote comprehensive understanding of geography through depth and rigour

Paper 1 focuses on different Global Environments, with an emphasis upon the interrelationships between physical and human components of those environments. The study of these environments aims to develop knowledge and understanding of:

• Relevant physical processes and factors operating in the environment

• How these physical processes and factors influence human activity in certain environments

• How human activity influences the environment

• How the environment might be managed sustainably

Paper 1 Global Environments Section B – The Atmospheric Environment		
Required	**Assignment Details**	**Directions**
For this lesson, you will work through the research, review by completing the short questions related to climate classification and then complete the quiz at the end to recall your knowledge and understanding. Use the links to access the research material.		
To Read	Climate Classification https://www.britannica.com/topic/classification-1703397 p200 Classifying Climates http://www.cengage.com/resource_uploads/downloads/0495555061_137431.pdf p314 Waugh Classification of Climate (print out) p167 Waugh Framework 7 Classification (print out)	Use the listed websites to learn about why climate is classified and the problems encountered. Answer the research questions as you learn.
To Watch	What is weather and climate 1:32 https://www.youtube.com/watch?v=sXqDTCqPxWA	Use the listed websites to learn about the Climate System.
To Do	**Consider & Respond: Summarise in 150 words or less.**	Submit your response to me before term start – see email below.

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A1:- Climate definitions and purpose of climate classification

The basic goal of the geographic study of climate is to understand its distribution over the Earth.

The challenge is that climate involves continuous variation and can also change over time, hence the need to adopt a formal system of categories and climate classification.

Research & Review

Read the first part Climate Classification https://www.britannica.com/topic/classification-1703397 and answer the questions below.

Essentially what is climate classification?

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What does Climate Classification rely on?

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Why is climate classification limited?

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What are the two main approaches to classifying climate?

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What is the climate of an area?

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Why is it difficult to organise and classify climates?

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Despite short-term differences the long-term climate may have similarities with other regions in the world and those measurable characteristics (climatic elements) can be grouped together – temperature, rainfall amount and distribution, winds etc. – or classified. Areas can then be compared with each other on a global scale to identify and explain similarities and differences in spatial and temporal distribution and patterns.

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The Process of Climate Classification

Now READ Classifying Climates p200 and ANSWER the following questions from
http://www.cengage.com/resource_uploads/downloads/0495555061_137431.pdf

Which two weather variables are most often used as indicators of climate?

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How does 'ordering' climatic data help geographers?

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Read p314 Waugh Classification of Climate (print out) and answer the following questions

How is it possible to make generalisations about the climate of a place or area?

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Why may the long term 'average' weather used to describe climate not always be accurate?

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READ Waugh p.314-15 alongside the link above.

Identify the methods used to by each climatologist to classify global climatic zones. Note down each classification's respective advantages and limitations.

Climatologist	Method for classifying climate	Advantages of classification	Limitations of classification
Köppen			
Thornthwaite			
Miller			

Hand in this page only to your Geography teacher. Due first lesson of term

Consider & Respond

Name: ……..

Using the research you have just completed, summarise in 150 words or less.

i) Why do geographers try and classify climate?

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ii) What are the advantages of classifying climate?

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iii) What are the limitations of classifying climate?

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iv.) Choose **one** of the following climatic zones: *equatorial, semi-arid tropical, arid tropical, arid temperate, humid temperate, boreal, and arctic*. Provide details of their latitudinal location, climatic characteristics, vegetation type and a named example of a region within that climatic zone.

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CPU Level:

WWW:

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Student response EBI:

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Glossary

http://www.physicalgeography.net/glossary.html

Classification	Process of grouping atmospheric elements into categories.
Climate	Long-term (at least 30 years) atmospheric pattern in a specific area. Characteristics are represented by data on pressure, temperature, wind, precipitation, humidity used to calculate daily, monthly and yearly averages to build up a general global picture.
Macro-climate	Global- or continental-scale climate regions that are hundreds-thousands of km across.
Meso-climate	Regions with associated climatic processes occurring at a scale of tens-hundreds of km.
Microclimate	the climate of a very small or restricted area
Climatic elements	Atmospheric elements are: temperature, pressure, wind, humidity, and precipitation
Climate controls	Latitude, altitude, continentality, atmospheric pressure patterns, prevailing wind patterns, topography.
Weather	Local atmospheric state, usually short timescale (hours to months). Emphasises aspects that affect humans – sunshine, cloud, wind, rain, humidity and temperature.
Climograph	Located graph that plots air temperature and precipitation for the months of the year. Enables comparison between locations and can indicate latitude, hemisphere, atmospheric temperature range, seasonal changes, etc.
Air Temperature	How warm or cold the atmosphere is. Average and seasonal changes (temp, range).
Precipitation	Moisture released from the atmosphere - rain, drizzle, hail, sleet or snow. Includes the total amount and seasonal changes - wet year round, dry year round, dry winter/summer, wet winter/summer
Atmospheric pressure	Weight of air resting on the Earth's surface.
Humidity	Amount of water vapour in the atmosphere measured as a percentage.
Prevailing wind	Dominant direction that a wind blows **from** throughout the year, for a location/region.
Latitude	Imaginary lines around the Earth running parallel to the equator. These are measured in degrees north or south of the equator.
Altitude	A measure of an area's vertical height above sea-level.
Topography/Relief	Altitude and form of the land surface.
Maritime Effect	The effect of large ocean bodies on climate of locations/regions. Results in lower surface air temperature range both daily and annually.
Continentality	Difference between continental and marine climates characterized by increased atmospheric temperature range over land compared with water. Difference is due to much lower heat capacities of land surfaces and reduced evaporation rates.

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