

Welcome to GCSE Geography



Where will it take us today?

Geo-concepts Quiz !!!

Qn 1: Biome or Ecosystem?

Qn 2: How productive?

Qn 3: Producer, Consumer or decomposer?

Qn 4: herbivore, carnivore or omnivore?

Qn5: What's the link between Producers, Consumers and decomposers?

Qn 6: Energy Flow – listen carefully!



Know: Key concepts about ecosystem food chains

Understand: the importance of geo-lingo and revision to success

Questions

Qn1

TRF B

Lake E

Tundra/Polar B

Desert B

Wrekin E

Qn 2

Tundra/polar L

Desert L

TRF H

Decid forest in winter L

Mountain regions L

Qn3

Sheep C

Worm D

Daisy P

Fungi D

Dung beetle D

Qn 4

Sheep H

Lion C

Goat H

Monkey O

Pig O

Qn5

P – C - D

Qn 6

1. How does energy flow through system?
2. What 'fuels' the system?
3. What % energy passes from layer to layer?
4. Why is so much lost?

Qn 1 /5

Qn 2 /5

Qn 3 /5

Qn 4 /5

Qn 5 /1

Qn 6 /4

Topic 4: Sustaining Ecosystems

Life on Earth is supported by global ecosystems and the link between human wellbeing and ecosystem wellbeing is vital.



This is what we will be exploring in this session

- What is the climate, flora and fauna of the six major global ecosystems?

Biome Enquiry

Hypothesis:

The level of productivity of a biome is completely influenced by its latitude

Prediction: what is your gut reaction? Why?

Method:

1. what data would you need to check this out?
2. Get the data!
3. Convert it to a scatter-graph

Know

the location of the world's major biomes

Understand

The effect of latitude upon the distribution (spread) of biomes

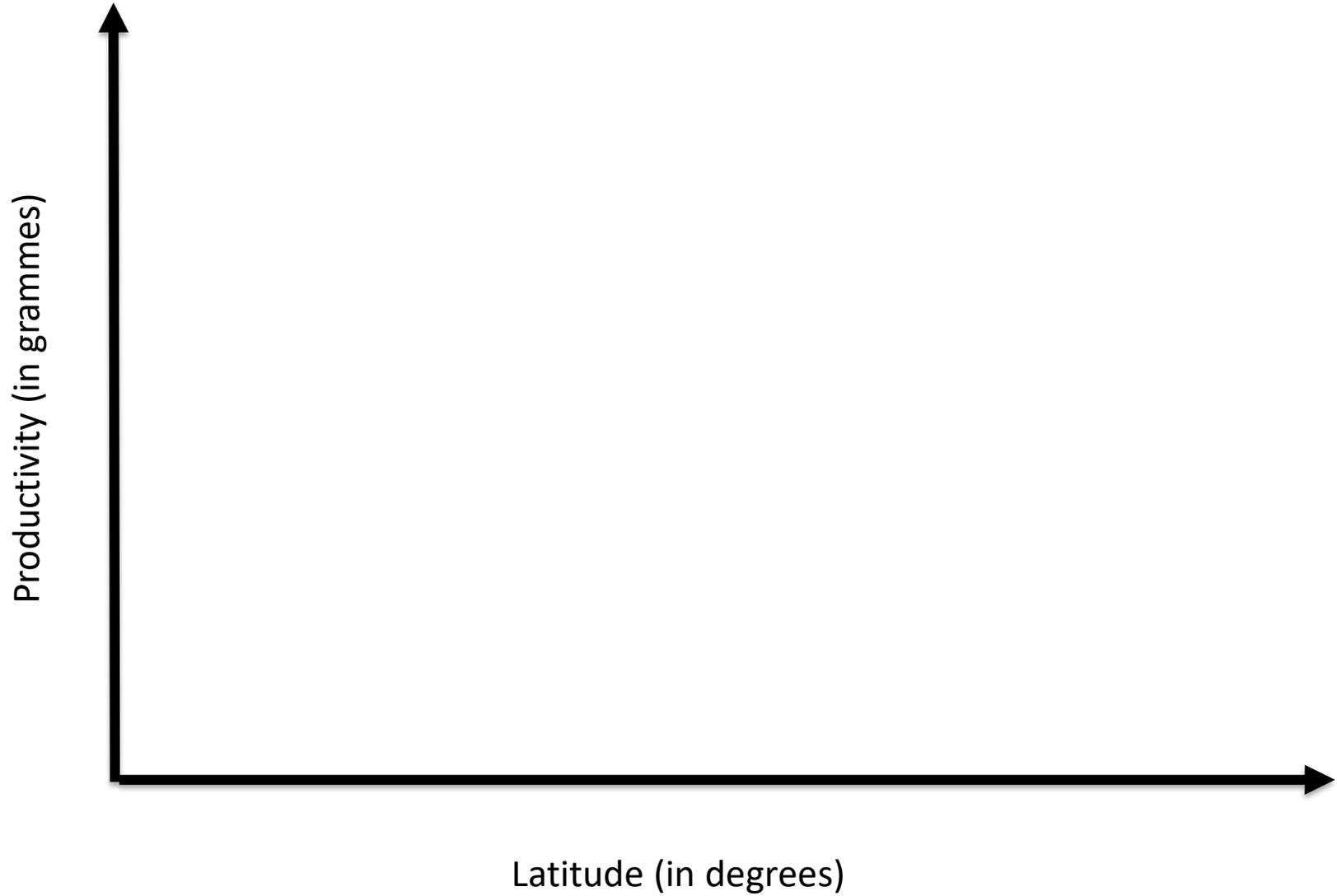


come
get it!



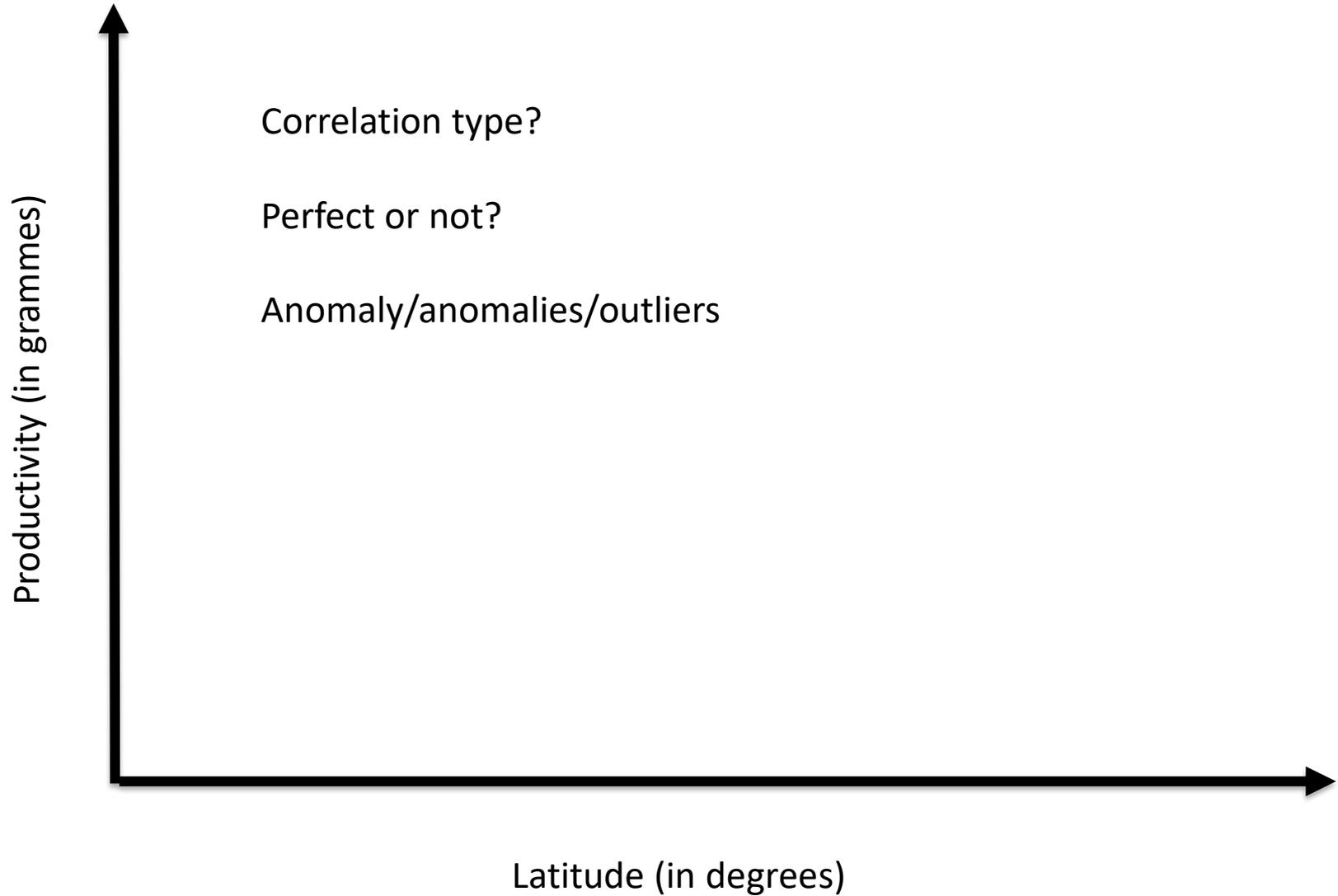
A scatter graph comparing the effects of ? on biome ?

All Four
Top Drawer



A scatter graph comparing the effects of ? on biome ?

All Four
Top Drawer



Why is the climate like this?

Geo-lingo



latitude; precipitation; circulation; photosynthesis;
altitude; tilt; concentrated; diluted; solar energy;
Tropic of cancer; Tropic of Capricorn; air pressure;
temperature



Geo-detectives can think for themselves

10 mins

Over To You:

1. What do the words above mean?
2. Which ones link together?
3. How might this help to explain the location of biome types?

come
get it!



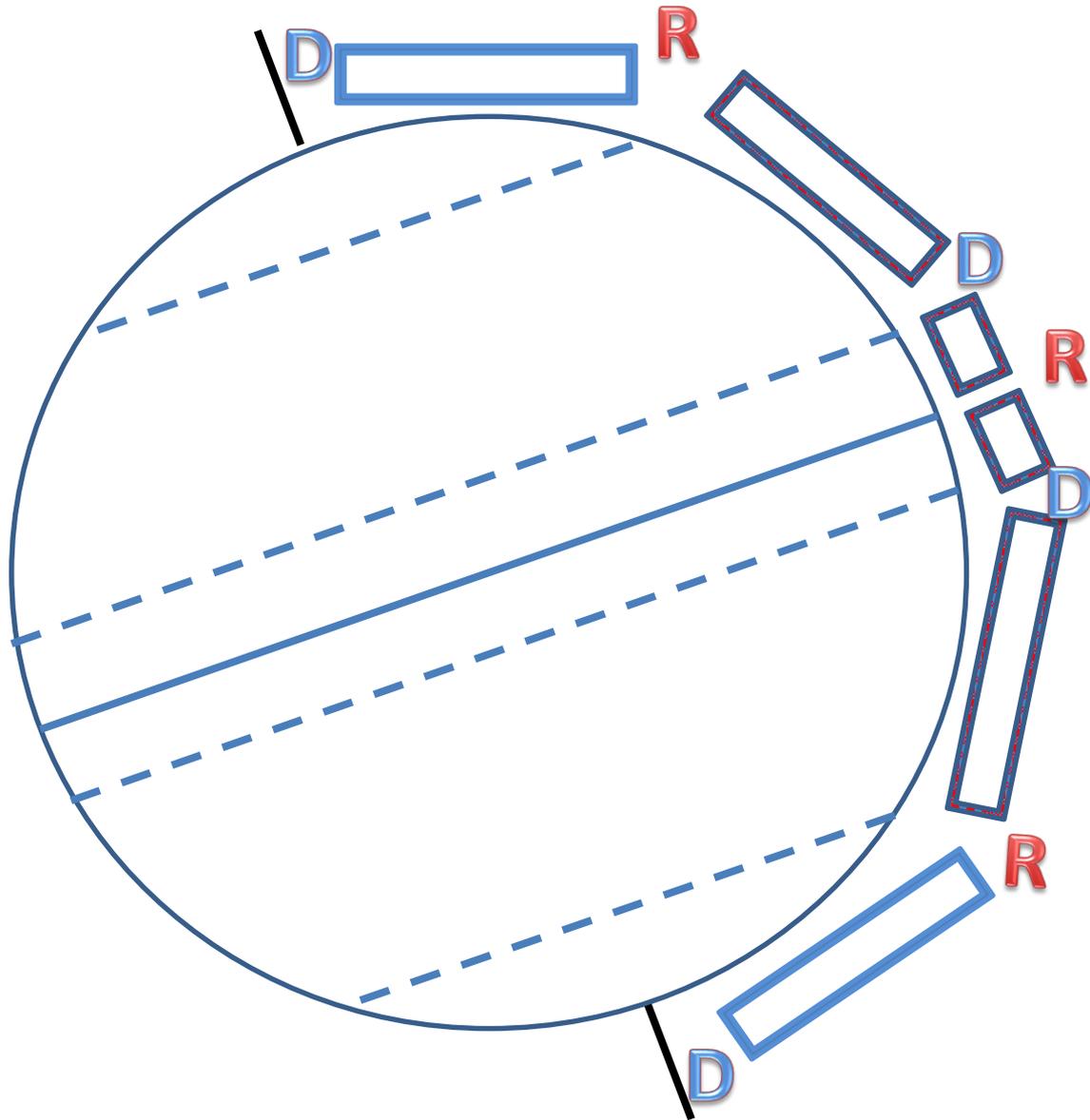
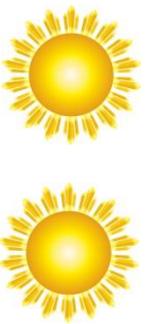
Topic 4: Sustaining Ecosystems

Life on Earth is supported by global ecosystems and the link between human wellbeing and ecosystem wellbeing is vital.



This is what we will be exploring in this session

- What are the factors that affect climate (and therefore biome distribution)?
- What is the climate, flora and fauna of the six major global ecosystems?



Not to Scale!

Hadley
Ferrel
Polar

Factors affecting biome location

There are **FIVE** key factors.....

latitude	
altitude	
continentality	
Ocean currents	
Wind direction	

Over To You:

1. What do the words above mean?
2. How do these influence climate and biome distribution?

Take one of THREE challenges to discover more **GOOD LUCK**



Know

the 5 factors that affect the location of the world's major biomes

Understand

How they affect climate of places

Factors affecting biome location

There are **FIVE** key factors – unscramble these

Latitude	Ocean currents bring warm or cold water. This will either warm up or cool down places. The west coast of the UK is warmed by the North Atlantic Drift.
altitude	Inland areas are warmer than the coast in summer and colder than the coast in winter
continentality	Winds from the poles bring cold air, winds from the Equator bring warm air; winds from continent areas bring dry air; winds from oceans bring moist air.
Ocean currents	How far north/south of the Equator you are located. The closer you are the warmer the temperature.
Wind direction	How high up or elevated a place is; generally the higher it is the colder it is

20
mins

Over To You

- Your team will be assigned a global ecosystem (biome) at random, your mission is to find out about its
 - ❖ Climate (temperature) [min, max, range, seasons?]
 - ❖ Climate (precipitation) [min, max, range, seasonal?/regular?/reliable?]
 - ❖ Flora (the vegetation/plant life) [types of/amounts]
 - ❖ Fauna (the animal species) [types of/amounts]

Success Criteria....

- Team work inc co-operation and communication skills
- Time management skills
- Ability to compile concise, accurate data
- Ability to 'tag' secondary resources
- Use of geo-lingo

What have I learned today?

I now know that

I now understand

Skills I have developed or practised include

Knowledge
Understanding
Employability
Literacy skills



Grazing herd eg zebra; hunting groups eg lions	Canopy layer; lots of species	Hot all year 25-30	Warm summers, mild winters (5-20)	Cold winters. Cool summers (<10)	Wet and dry seasons >2500mm/year	Temperate forest
Very high 2500	Tropical grassland	Low <500mm	Grassland, few trees	A very wide range of species	tundra	N/A
Very low (<300mm)	Seaweed, plankton, algae	Hot desert	Mainly migrating ones; live here summer only	Coral reef	Animals adapted to dry cond's eg camels	Small short plants; summer only
Coral; 1/3 World's fish live here	Tropical & sub tropical oceans 16-30	Animals adapted; some hibernate	Mainly deciduous; a sound variety	TRF	Hot by day (30) cold at night	Biome
Variable 500-	v. few species;	Warm all year 20-30	Plants	Animals	Rainfall	Temps (degrees c)