Year 11 Trial Exams 1

Geography Revision

Paper 1

Physical Landscapes in the UK

Rivers

PiXL Independence: Ranking Triangle

Managing Floods – Hard Engineering

Rank the different methods of hard engineering.

Decide what criteria to use – sustainability? Cost? Effectiveness?
Justify your choices.

The most important information goes at the top and then the least important at the bottom.
Make sure you justify WHY you think it the most/least important.

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PiXL Independence: Thinking Hard Model

Managing Floods Case Study – Banbury

Location

Banbury is a town in the Cotswold Hills about 50km north of Oxford. The population is about 45,000. Much of the town is built on the floodplain of the River Cherwell, which is a tributary of the River Thames.

History of flooding

Banbury has experienced many devastating floods. In 1998 flooding led to the closure of the town's railway station, shut local roads and caused £12.5 million damage. More than 150 homes and businesses were affected

In 2007 the town was hit again by floods that covered much of central and western England. Many more homes and businesses were affected as the river burst its banks after very heavy rain.

Flood Management in Banbury

In 2012 Banbury's new flood defence scheme was completed. A 2.9km earth embankment was built parallel to the M40 motorway to create a flood storage area. The embankment has a maximum height of 4.5m. It is capable of holding around 3 million cubic metres of water – that's 1200 Olympic sized swimming pools!

The flood storage area is located mainly on the natural floodplain for the River Cherwell. It collects rainwater that otherwise would fill the river and cause it to flood.

Photo D shows one of the two flow control structures in the embankment. The specially designed aperture (opening) controls the rate of flow downstream towards Banbury. Any excess water backs up behind the structure, filling the reservoir rather than flooding Banbury. The design avoids the need to open and close flood gates.

Additional flood defences (part of the scheme):

- Raising part of the A361road in the flood storage area plus improvements to drainage beneath the road to prevent flooding
- New earth embankments and floodwalls to protect property and businesses, such as the motorsport business Prodrive
- A new pumping station to transfer excess rainwater into the river below the town
- The creation of a new Biodiversity Action Plan (BAP) habitat with ponds, trees and hedges to absorb and store excess water

Social	Economic	Environmental
• The raised A361 route into Banbury will be open during a flood, to avoid disrupting people's lives. • Quality of life for local people is improved with new footpaths and green areas. • Reduced levels of anxiety and depression through fear of flooding.	• The cost of the scheme was about £18.5 million. • Donors included Environment Agency and Cherwell District Council. • By protecting 441 houses and 73 commercial properties, the benefits are estimated to be over £100 million.	• Around 100000 tonnes of earth were required to build the embankment. This was extracted from nearby, creating a small reservoir (map **C**). • A new Biodiversity Action Plan habitat has been created with ponds, trees and hedgerows. • Part of the floodplain will be deliberately allowed to flood if river levels are high.

PiXL Independence: Thinking Hard Model

Managing Floods Case study - Banbury

Take the text and do the following:

1) Prioritise: Underline the three most important sentences and write them here. Rank 1-3, briefly explain number 1. Cross out the least important sentence
2) Reduce: Reduce the key information into 12 words
3) Transform: Transform this information into 4 pictures or images (no words allowed)
4) Categorise: Sort this information into three categories. Highlight and think of a suitable title for each category.
5) Extend: Write down three questions you'd like to ask an expert in this subject.

PiXL Independence: 'Boxing Up' Activity

Changes in Rivers and Their Valleys

Read the text and then put your thoughts in to different boxes so that you have 'boxed up' the text.

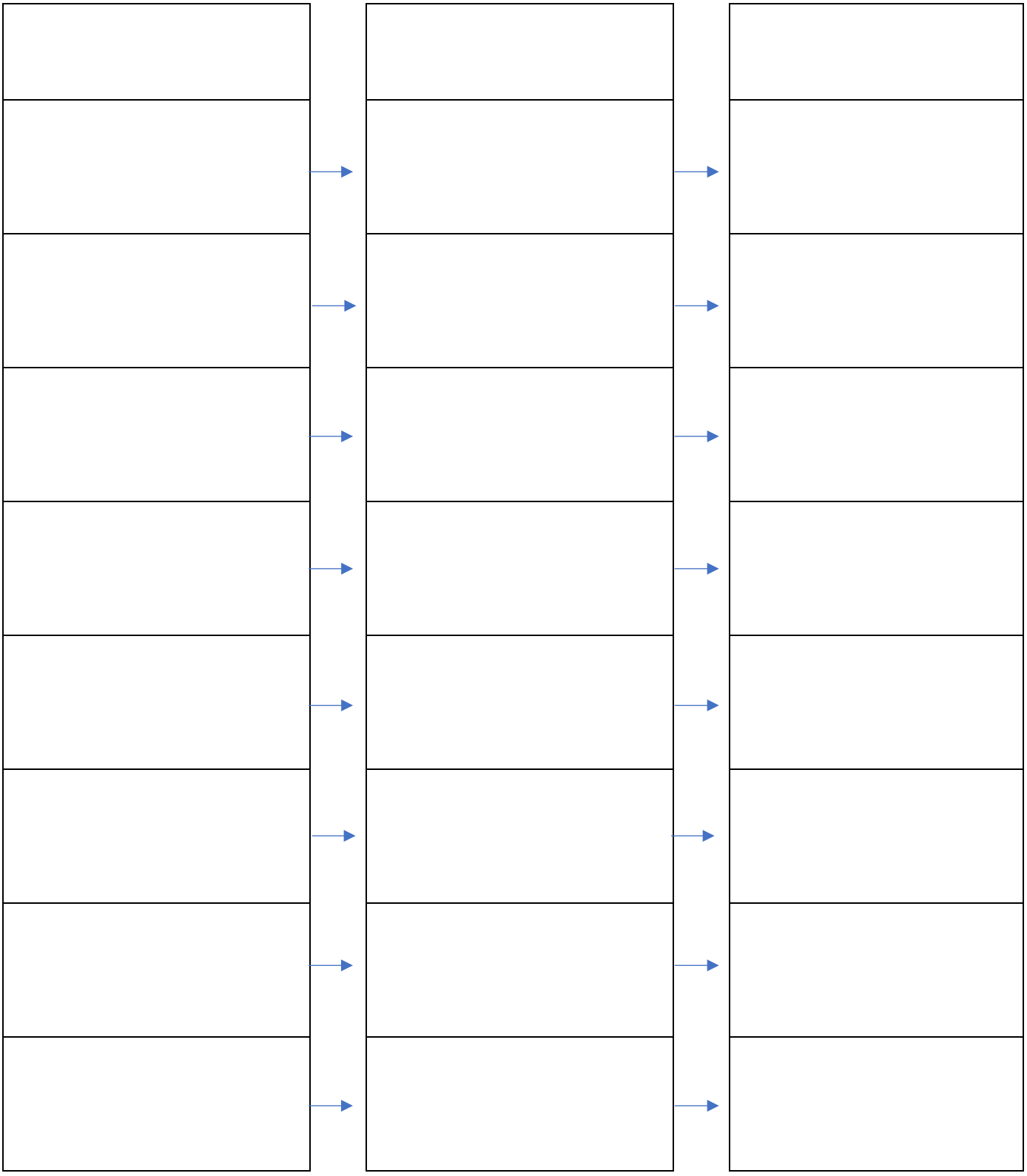
Box 1 – 3 things I did not know
Box 2 – 3 things I understand better now
Box 3 – 3 things I already knew
Box 4 – 3 things I need to research further

PiXL Independence: Question Time

Factors that increase flood risk?

When you read any text, you should be asking it questions NOT just letting it wash over you.
Read your text and pause and ask it questions e.g. 'what do you mean when you say '…."?'

Questions I'm asking the text	Answers to those questions	Things I need to ask my teacher



PiXL Independence: Quizzing

Case study – River Tees

Read the text and come up with 20 questions to ask someone about the text.

Swap with a partner and answer their questions.

Mark the answers.

	Question	Answer
1		
2		
3		
4		
5		
6		
7		
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11		
12		

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15		
16		
17		
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20		

PiXL Independence: Transforming

Formation of River Landforms

Turn the material you have read into up to 6 pictures – one per paragraph or one per key piece of information. The pictures must represent the information so that they can act as a reminder of what the text said. Underneath each picture, explain your thinking.

1.	**2.**	**3.**

4.	**5.**	**6.**

Commissioned by The PiXL Club Ltd.