Physical geography

VOCABULARY PRACTICE

ADVANCED | C1

Name: _____ **Date:** _____

1 Match each advanced landscape concept with its meaning.

1 geomorphology	____	a sinking of the ground surface
2 orographic uplift	____	b study of landforms and the processes shaping them
3 isostatic rebound	____	c deliberate movement of flood defences inland
4 sediment budget	____	d landforms created by dissolution of soluble rock
5 coastal retreat	____	e balance between sediment entering, stored in and leaving a system
6 river capture	____	f human influence that drives environmental change
7 karst topography	____	g land rising after removal of a former ice load
8 subsidence	____	h progressive inland movement of a shoreline
9 anthropogenic forcing	____	i one river diverting the headwaters of another
10 managed realignment	____	j air being forced upwards by elevated terrain

2 Complete the advanced process collocations.

budget | **capture** | **forcing** | **realignment** | **rebound** | **retreat** | **subsidence** | **uplift**

1 trigger orographic _____

2 measure isostatic _____

3 calculate a sediment _____

4 identify evidence of river _____

5 monitor long-term coastal _____

6 detect groundwater-related _____

7 separate climatic from anthropogenic _____

8 implement managed _____

3 Choose the concept that best captures the distinction.

1 A coast moves inland as cliffs erode: *coastal retreat / subsidence*.

2 The land surface sinks after groundwater extraction: *subsidence / coastal retreat*.

3 Mountains force moist air upward: *orographic uplift / isostatic rebound*.

4 Land rises centuries after ice melts: *isostatic rebound / orographic uplift*.

5 Inputs and outputs of sand are quantified: *sediment budget / erosion rate*.

6 A stream intercepts another river's headwaters: *river capture / channel avulsion*.

7 Caves and sinkholes form in limestone: *karst topography / floodplain relief*.

8 A sea wall is intentionally moved inland: *managed realignment / hard engineering*.

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4 Complete the geomorphological assessment with terms from the box.

anthropogenic forcing | coastal retreat | geomorphology | isostatic rebound | karst topography | managed realignment | orographic uplift | river capture | sediment budget | subsidence

Regional **1** _____ reflects both inherited geology and present processes. Mountain rainfall results from **2** _____, while former glaciation still produces **3** _____. Limestone dissolution has created **4** _____. A dry valley may record ancient **5** _____. Along the coast, an unbalanced **6** _____ accelerates **7** _____. Groundwater pumping contributes to **8** _____, an example of **9** _____. Authorities are considering **10** _____ rather than continually raising sea walls.

5 Read the text and answer the questions concisely.

Uncertainty in a dynamic coast

Shoreline position reflects waves, sediment supply, geology, sea level and human intervention. A short record can conceal long cycles of erosion and recovery, while a single storm may shift the coast dramatically without establishing a lasting trend. Models therefore use scenarios rather than exact forecasts. Decisions about defence, adaptation or managed realignment must acknowledge uncertainty and uneven consequences. Protecting one frontage may interrupt sediment transfer and increase erosion elsewhere. Effective governance combines monitoring, transparent assumptions and revision as evidence changes.

1 Name three controls on shoreline position. _____

2 Why can a short record be misleading? _____

3 Why does one storm not prove a trend? _____

4 Why do models use scenarios? _____

5 How may protecting one frontage affect another? _____

6 What three practices support effective governance? _____

6 Paraphrase using the expression in capitals.

1 Human activity is driving part of the landscape change. **FORCING** ___

2 The coast lacks enough incoming sand to replace losses. **BUDGET** ___

3 The ground is sinking because water is being extracted. **SUBSIDENCE** ___

4 Defences will be moved inland to restore tidal land. **REALIGNMENT** ___

OVER TO YOU

Write a **160-190 word** critical response: How should decision-makers manage a dynamic river or coastal landscape when processes, risks and future conditions are uncertain?

[ ] Use at least ten target terms or collocations. [ ] Distinguish observation from inference. [ ] Address uncertainty, displaced risk and adaptive management.

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ANSWER KEY

1 Advanced landscape concepts

1 **b** 2 **j** 3 **g** 4 **e** 5 **h** 6 **i** 7 **d** 8 **a** 9 **f** 10 **c**

2 Advanced process collocations

1 **uplift** 2 **rebound** 3 **budget** 4 **capture** 5 **retreat** 6 **subsidence** 7 **forcing** 8 **realignment**

3 Conceptual distinctions

1 **coastal retreat** 2 **subsidence** 3 **orographic uplift** 4 **isostatic rebound**
5 **sediment budget** 6 **river capture** 7 **karst topography** 8 **managed realignment**

4 Geomorphological assessment

1 **geomorphology** 2 **orographic uplift** 3 **isostatic rebound** 4 **karst topography** 5 **river capture**
6 **sediment budget** 7 **coastal retreat** 8 **subsidence** 9 **anthropogenic forcing** 10 **managed realignment**

5 Reading - suggested answers

1 Any three: waves, sediment, geology, sea level, intervention. 2 It may conceal long cycles. 3 The shift may be temporary.
4 Exact forecasts are impossible. 5 It may interrupt sediment and increase erosion elsewhere. 6 Monitoring, transparent assumptions and revision.

6 Paraphrasing - possible answers

1 **Anthropogenic forcing** drives part of the change. 2 The coast has a negative sediment **budget**. 3 Groundwater extraction is causing **subsidence**. 4 **Managed realignment** will restore tidal land.

Over to you: Answers will vary. Check conceptual precision, uncertainty, spatial consequences and adaptive reasoning.