Title of Activity    Links in the Landscape: Linkages between Landform, Process and Landscape using Photographs

Topic or Theme    Any physical landscape.

What is frequently misunderstood or not grasped?
Appreciation of whole landscapes – students will frequently identify individual landforms but not think relationally about whether and how they are linked to other features in a landscape. How different elements in a given landscape are connected by processes. The different timescales involved in developing the different elements of the landscape. How a landscape works as a system.

Activity Description
Labelling and annotation of large landscape photographs so that the links between elements of the landscape are clarified and relative locations visualised.

Materials
Photographs printed on large paper, at least A3 or posters of landscapes rather than individual landforms. Appropriate labels and annotations for that picture, printed and cut out. Small post-it notes for labels to be made by pupils for different photographs.

Set-Up and Procedure
1. Place the image in front of pupils; ask what they see. Often there will be reference to particular landforms e.g. meander; corrie.
2. The labels & annotations should be placed appropriately on the photo and read out loud as they are located. It is better not to separate process and landform labels.
3. Discuss the landscape, clarifying terms if necessary, and picking up on any confusion.
4. Repeat with a different photograph, supplying an incomplete set of labels
5. Repeat with different photographs; pupils produce their own labels and annotations on post-it notes.

Follow Up
• Take digital photos of the original image and the completed exercise; use for display and/or send to all pupils for their notes or revision.
• Take any part of the photograph (topic dependent) and get pupils to write a passage about what is happening, ensuring all relevant landforms and processes are named and explained.
• Identify active, and/or relict (no longer active). and/or dormant/sporadically active elements.
• Estimate timescales for the development of different elements.
• Draw a systems diagram to show the linkages and feedbacks.
Links in the landscape

Picture Activity to explore and understand links between different landforms/elements/features within a landscape.

Example used: Photo of a valley in the English Lake District printed A3. (This photo from Janet Hutson collection and is copyright free)

- First glance comments: “green” “a valley” “hillside”…… etc
- Take any part of the picture, identify features and processes and link to somewhere else on the picture, depending on the particular topic being studied. The obvious one here is rivers.
- The picture enables consideration of all processes from water reaching the channel to landforms of erosion and deposition, associated weathering and mass movement, and also prediction of change.
- Labels provided as below; some more suited to A level than GCSE.

| Hummocky Moraine on valley floor; material was carried and deposited by glaciers | Scree slopes formed by frost shattering. (weathering) | Fossil scree slopes: vegetation has stabilised them and slows overland flow. | Bedload erodes channel by impaction and abrasion. |
| Steep, bare slopes encourage overland flow. | Active slopes have material moving downslope towards the river channel. | Deposition on inner bend contributes to channel migration. | Bedload moved by traction and saltation at times of high flow. |
| River channel | Erosion at outer bend cuts back the channel, contributing to channel migration. | Eroded material falls into the channel & can be used for abrasion. | Eroded material may fall to the channel floor becoming bedload. |
| Misfit river | Erosion causes undercutting of the bank. | River cliff at outer bend. | Bedload increases friction so slowing down the water flow, reducing erosion, increasing deposition. |
| Easily weathered moraine slumps (mass movement) into the channel. | Small scale slumping or soil creep creates terraces. | Debris output from valley side slopes taken away by the river. | Smaller clay particles wash out from the moraine leaving larger particles on river banks and in the channel. |
| River winds between interlocking spurs | Steep valley sides. Erosion mainly vertical. | | |
| Tributary stream joins main channel at a confluence, increasing discharge and energy. | | | |