

Landform hierarchy used in S-map

Term	Definition	Examples	Scale
Land province	A major geomorphic zone, an assemblage of surface forms expressive of large-scale lithological association(s), tectonic regime, and climate .	Axial mountains and associated intermontane basins.	1:250,000 to 1:2,000,000
Land region	Lithological based macro-relief units (landscape) at scales smaller than 1:250,000, frequently bounded by structural dislocations (e.g. major faults) or contrasting rock terranes. They may cover a range of climates or be separated by climate regime. An assemblage of land systems.	Mountain range, lowland plains.	1:100,000 to 1:250,000
Land sub-region	Optional level. Distinctive landscapes determined primarily by contrasts in lithology and their response to erosion processes, sediment generation, storage, and flow .	Landscapes developed on hard rocks (controlled drainage) vs soft rocks (dendritic drainage).	1:50,000 to 1:125,000
Land system	Recurring pattern of topography, rock types, with or without significant cover beds, and soils with a relatively uniform climate/soil moisture regime. An assemblage of land units.	Large floodplain and river terrace systems.	1:25,000 to 1:100,000
Land unit	The geographic entity where all but one of the soil-forming factors remains constant across space, e.g. gross topo, litho, climo or chrono sequence , i.e. where there is one primary driver of soil variation. It is acceptable to have a dual sequence if this is pragmatic.	Lithosequence where material texture and depth change with distance from source.	1:25,000 to 1:100,000
Land component	Genetically uniform with similar age and surface materials . These are the individual parts of the land unit sequence.	Hill-country drainage basin erosion sequence, terrace age.	1:10,000 to 1:25,000
Landform element	Genetically uniform with similar climate, lithology, topographical position and age.	Ridge, shoulder, valley, north, south.	1:100 to 1:25,000

Each part of a landform tree has a descriptive name and can be further explained by means of narrative, sketches, annotated photos, soil-landscape diagrams, and even audio-video files for oral descriptions. This information will appeal to a range of learning styles.

Example tree for Front ranges and inland basins land province:

