

Grading Checklist

Learning Assessment #6 – Geologic Time

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Learning assessments are graded using a checklist-style rubric. The purpose of the checklist is to clearly and concisely show students where they lost marks on the assignment and why. When students are reviewing their work they initially focus on the areas they got incorrect as identified on the checklist.

The checklists also help to ensure that grading is transparent to the students. They help maintain consistency amongst graders, which may be a challenge in large courses with multiple instructors/teaching assistants marking the same assignment.

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LEARNING ASSESSMENT #6 (GEOLOGIC TIME) GRADING CHECKLIST

Q.1 Relative Age (26 pts total)

Solution #1 (13 pts)

Order of Events/Units (1 pt each)

- phyllite
- sandstone
- granite
- hornfels

Reasoning (2 pts each) – see answer key

- phyllite
- sandstone
- granite
- hornfels

Nature of Contact (1 pt)

- non-conformity between phyllite and sandstone

Solution #2 (13 pts)

Order of Events/Units (1 pt each)

- sandstone
- phyllite
- granite
- hornfels

Reasoning (2 pts each) – see answer key

- sandstone
- phyllite
- granite
- hornfels

Nature of Contact (1 pt)

- thrust fault between phyllite and sandstone

Geological Evidence (4 pts total)

look for fragments of phyllite within the sandstone for solution #1 (principle of inclusions)

look for evidence of erosion of the phyllite (not a totally flat surface)

look to ensure there is no evidence of faulting / deformation along surface of phyllite and sandstone

numerical age dating of phyllite and sandstone

Q.2 Numerical Age Dating (8 pts total)

Phyllite

- protolith mineral
- timing of metamorphism

OR

- metamorphic mineral
- age of regional metamorphism

Sandstone

- fossils (if present)
- age of deposition/lithification

Granite

- igneous mineral
- timing of granite intrusion/solidification

Hornfels

- metamorphic mineral
- timing of contact metamorphism

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