

## Highlands Virtual Tour

Open KMZ file in Google Earth Pro. This application is a free download available at <https://www.google.com/earth/versions/>. Once the virtual tour is open in Google Earth Pro, see sites listed in the virtual tour for more information on each site. Click on the name of a site for a photo and a description. Double-click on a site to be flown to that site. Below are questions and answers based on the virtual tour.

### Questions

1. What causes the high elevations in the Highlands?
2. How do waterfalls form?
3. How was the Sparta Delta formed?
4. What are stromatolites?
5. What happens when a rock outcrop breaks apart into smaller pieces due to weathering?
6. What is the difference between pegmatite and fine-grained granite?
7. What is the primary type of iron oxide mineral mined in the Highlands?
8. How was graphite formed in the Highlands?
9. How were thick layers of sand and gravel deposited over bedrock in the Highlands?
10. What is a glacial erratic?

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### Answers:

1. High elevations in the Highlands are the result of resistance of the Precambrian rocks to erosion.
2. Waterfalls form over resistant bedrock or form in response to an abrupt change in stream gradient downstream
3. The Sparta Delta was formed by a meltwater stream flowing into a glacial lake.
4. Stromatolites are the fossilized remains of colonies of cyanobacteria that often have a characteristic dome-shaped structure. Stromatolites are still forming in today's oceans.
5. When a rock outcrop breaks apart into smaller pieces due to weathering, it becomes susceptible to even more weathering.
6. Pegmatite and fine-grained granite are identical in mineral composition, but pegmatite have coarser (larger) grain-sizes.
7. Magnetite is the primary iron oxide mineral mined in the Highlands.
8. Graphite in the Highlands formed during the metamorphism of carbon from the remains of organic matter that had accumulated in the Precambrian ocean environment.
9. Sand and gravel were deposited by meltwater coming from glaciers.
10. A glacial erratic is a bedrock boulder transported by glacial ice and deposited when the ice melted.