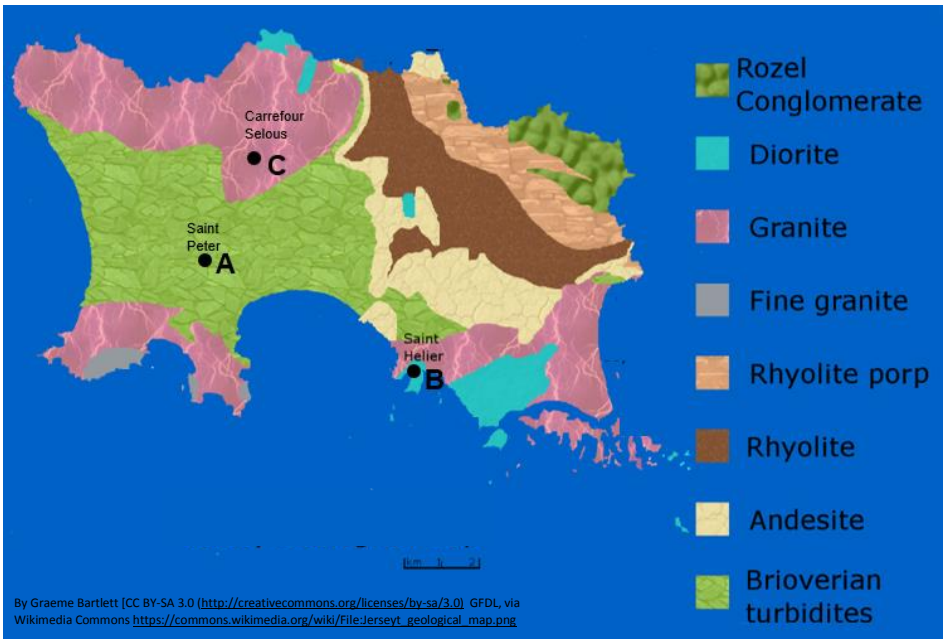
Paleontology Background Research Answer Key

South Carolina Aquarium

Jersey is an island off of the coast of Northern France. Use the following geological map to advise a paleontologist team on which of the following sites would be the best location for the team to begin searching for fossils.

Jersey Geological Map



Rock Types

Extrusive Igneous

Rhyolite 

Andesite 

Intrusive Igneous

Diorite 

Granite 

Sedimentary

Turbidites 

Conglomerate 

Paleontology Advisor: *Student's name*

Recommended Fossil Site Location: *Site A - St. Peter*

Site Justification:

Responses should include the following key concepts:

- Site A at Saint Peter has brioverian turbidite rocks in the area.
- Turbidite rocks are sedimentary rocks.
- Sedimentary rocks are the type of rocks that most fossils are found.
- Sedimentary rocks are formed by sediment layers building up and pressure causing cementation of the layers. These conditions are favorable to fossils being formed.
- Site B at Saint Helier has diorite rock which is an intrusive igneous rock
- Site C at Carrefour Selous has granite rock which is an intrusive igneous rock.
- Intrusive igneous rocks formed in extreme conditions of magma cooling underground which would not be the correct conditions for fossils to form.

Bonus: None of the site options were in the extrusive igneous rock areas. There would be a very small chance of finding fossil in extrusive igneous rocks. Trace fossils of tracks could be a possibility. Extrusive igneous rock that formed from lava cooling on the surface. Ultimately, sedimentary rocks will be the best place for fossil formation.