



The Blackacre Geology Trail Illustrated Journal

By

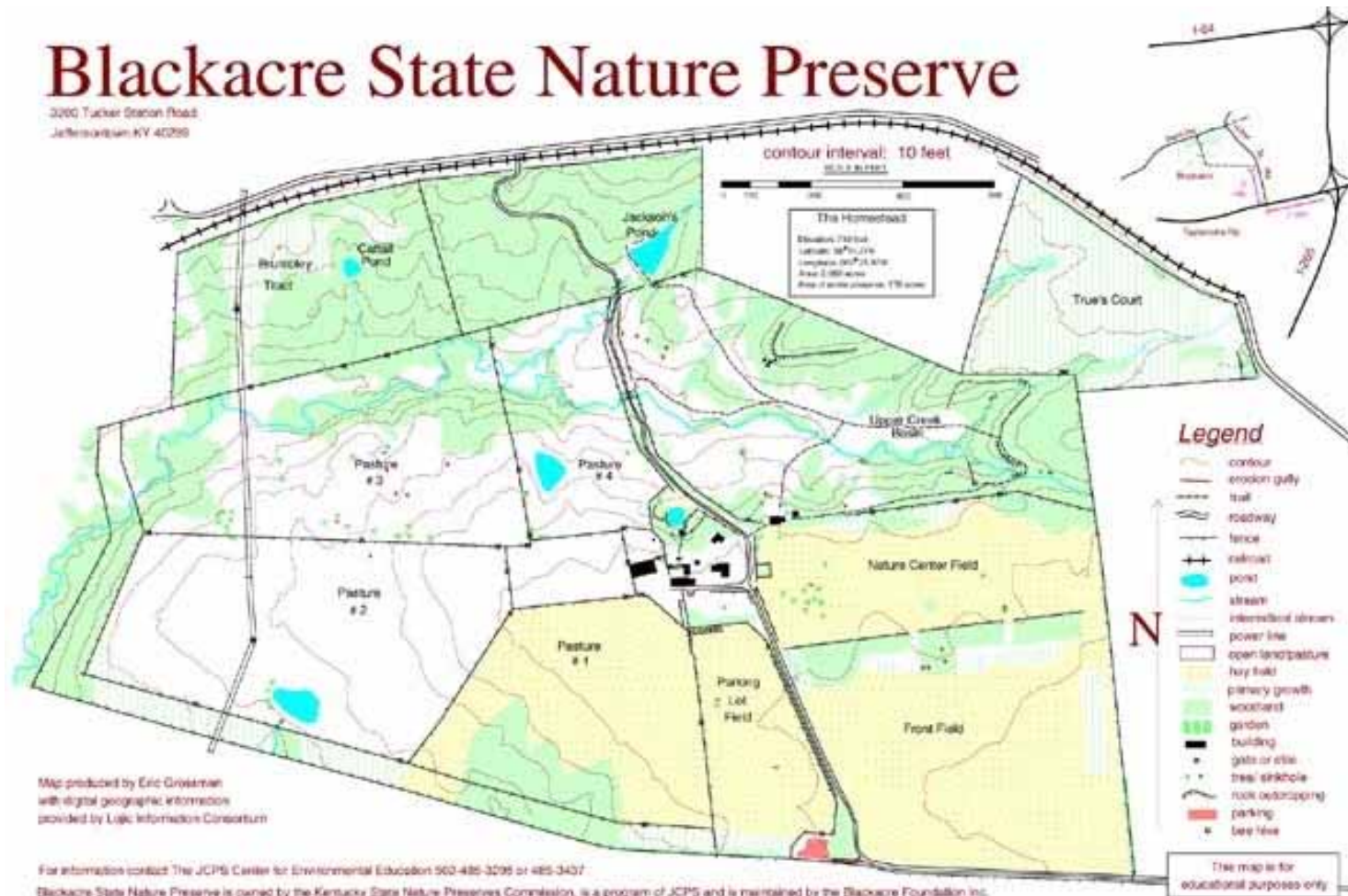
This is a publication of the JCPS Center for Environmental Education. It is intended as follow-up work for the Blackacre Geology Field Study. This work is a strategy to support science core content for assessment at the 4th grade level, SC-E-2.3.1 .

Prepared by Donna Griffin, Resource Teacher, JCPS Center for Environmental Education



Blackacre State Nature Preserve

3200 Tucker Station Road
Jeffersonton, KY 40299



Here is the route we took as we hiked the geology trail. The small maps on the following pages are to mark the location of each geologic feature.



The **Spring** is located near the red dot on the map. The water is coming out between rock layers.

A spring is a _____



The cave is formed by erosion. How do you think the erosion occurred to form the cave?

A cave is _____



A **sinkhole** is formed when water moves downward into cracks and passages underground. That underground erosion causes it to sink.

A sinkhole is beneficial because it _____



A **gully** is formed when water washes away soil on the surface of the earth and forms a deep gouge.

When you look at a gully you see _____



At the base of the **waterfalls** we see evidence of how water can change the shape of rock. What do you think happened?

Years from now the waterfalls will have changed. Here's how. _____



The rock quarry is a wall of rock used by the Tylers as a place to get rock for use in building. The soil is washed away leaving large layers of limestone exposed.

What evidence do you see that the rock quarry has been used by people as a source for rock?



Water flowing in the **streambed** moves soil and changes the shape of the stream over time. The outside curve of a stream is different than the inside curve.

The inside curve of a stream is _____

The outside curve is _____



Boulders can be found at several places along the geology trail. One of the more interesting examples is the boulder pulled out of the ground by tree roots wrapped around it.

Boulders are _____



The toll road shows many signs of erosion. When it rains the water carries gravel downhill and leaves channels where the water flows.

Where does the gravel go that is eroded away from the toll road? _____

What is left on the toll road in spots where the gravel is gone? _____



The soil profile pit shows the layers of soil and rock in the ground. Soil is a mixture of rock, clay, silt, sand, organic matter, and air spaces.

How is the soil in the forest different from soil in the meadow? _____

The surface of the earth is always changing. The geology trail at Blackacre shows many examples of how erosion and weathering cause **geologic features** to form. Create a chart showing the geologic features in this book.

Geologic Feature	Page Number