Name _____ Date _____ Class _____

STUDENT WORKSHEET

DESIGN YOUR OWN

Legend Has It . . .

According to Irish legend, two giants—Finn McCool of Ireland and Finn Gall of Scotland—were feuding. In order to sneak up on his foe, Finn McCool built a bridge out of huge stone columns, which spanned the great distance between his land and Finn Gall's. Tired from the effort, McCool went home to rest before the great battle. Finn Gall, having discovered the bridge, arrived at his enemy's home demanding to see McCool. McCool's clever wife pointed to her husband and said that only she and her sleeping baby were home. Finn Gall thought to himself, "If this huge thing is the baby, the father must be gargantuan!" Not wishing to fight such an enormous rival, Finn Gall raced home over the bridge, destroying it as he went. All that is left of the bridge are its two ends: the Giant's Causeway, in Northern Ireland, and Fingal's Cave, in Scotland.

INTERNET KEYWORDS

columnar jointing

basalt column

The Science Behind the Myth

1. The Giant's Causeway and Fingal's Cave are two locations where dramatic basalt columns have formed. Basalt columns are large, hexagonal, blue-gray towers that are formed when hot lava cools and cracks. Find out more about these amazing formations. Where else are they found? Demonstrate what you learned by building a model of a basalt column for the class. Explain how plate tectonics led to the formation of basalt columns.

Research Ideas

2. As scientists find out more about the Earth, they develop new theories about its changing surface. Go to the library, and investigate how geologists explained earthquakes and volcanoes in the past. Look in encyclopedias from the 1940s up to the present day. Compare older theories with modern ones. How have they changed? What are the problems with the older explanations? Make a chart that compares the explanations from the different time periods. Be sure to include illustrations.

3. Where do scientists predict the position of the continents will be in 50 million years? Pick one continent, and determine what effects the continent's future position will have on its climate and ecosystems. What direction do scientists believe the continental plate is moving? How will that effect the climate? Will today's species of plants and animals be able to survive? Present your findings in the form of a map that shows the climatic changes that you expect to occur in the next 50 million years.