



## South America Is EXTRAORDINARY!

*Research topics for Peru, Bolivia, Ecuador, the Andes Mountains, South America:*

**Animals:** Find out more about guinea pigs, condors, foxes (e.g. compare mountain foxes and desert foxes. Notice the differences in their ears and legs which help them adapt to cold and heat) and llamas (and their cousins, the soft woolly alpaca and the delicate wild vicuna).

**Inca Math:** How would you keep your accounts without paper or computers? The Incas used quipus (“KEE-poos”), an elaborate knotted-string counting system. They have been called “talking knots” because they might have kept information as well as numbers.

**Food:** We can thank South America for tomatoes, peppers, squash, corn, quinoa, and 4000 kinds of potatoes (yes, 4000! Visit the International Potato Center based in Lima, Peru, at [www.cipotato.org](http://www.cipotato.org)). Adults might read Jack Weatherford’s *Indian Givers: How the Indians of the Americas Transformed the World*.

**Knitting:** Look up the men who knit their own caps on Taquile Island in Lake Titicaca. Want to make your own? Read *Andean Folk Knitting: Traditions and Techniques from Peru and Bolivia* by Cynthia Gravelle LeCount (Dos Tejedores 0-932394-07-8).

**Inca Math:** Quipus (“KEE-poos”) are an ancient, elaborate knotted string counting and recording system. Quipus get more complex than you might think!

**High Altitude:** How do people and animals and plants adapt to living with low oxygen and cold temperatures? What about the soccer teams who play in both Lima (sea level) and Cusco (11,000 feet)? (Ask Barbara if you want to know more about those soccer players).

**El Niño:** Usually the water off the coast of Peru is very cold, and full of plankton. That means plenty of food for anchovies, which means there are also millions of sea lions, pelicans, diving birds—even penguins. When warm currents wash into that cold Humboldt current, those plankton can’t survive. Whom else does El Niño affect? Why is it called El Niño?

**The Atacama desert, the Atlantic Ocean, the Amazon Jungle, and the Andes Mountains:** four extreme biospheres in one area!

**Building with boulders:** Beautiful stone temples and houses and walls built by the Incas have survived centuries of earthquakes and invaders. How did they do it? The huge stones still fit together so tightly you can’t slide a knife-blade between them! The ruins of Machu Picchu are the most famous and beautiful example of this partnership of engineering and art and nature.



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