Name: _____ Grade: _____

Science class

Why don't the waters of the Rio Negro and the Rio Solimões mix?

A drainage basin (or river basin) is a part of the Earth's surface cut by a main river and its tributaries (smaller rivers that flow into the main river). The largest drainage basin in Brazil (and in the world) is the Amazon Basin, which consists of all the rivers, streams, creeks and other watercourses that flow into the Amazon River. The main river of the basin, the Amazon, is formed by the junction of two rivers: the Rio Negro and the Rio Solimões.

The Rio Negro, as its name suggests, is a river with very dark water. Its source is in Colombia, and the black-tea color of its water is due to the large amount of organic matter from the decomposition of vegetation. It has an average temperature of 28 °C and flows slowly, at about 2 km/h.

The Rio Solimões, whose source is in Peru, has a muddy color very similar to coffee with milk. This is due to the large amount of sediment the water carries as it flows down from the Andes mountain range. It is colder than the Rio Negro, at 22 °C. In addition, it flows faster, at about 6 km/h.

The Meeting of the Waters is the confluence of the Rio Negro and the Rio Solimões, which takes place in Manaus (Brazil), and the surprising thing is that their waters initially do not mix. The color contrast is striking, and this phenomenon can even be seen from space. The waters join after about 6 km and, from that point on, the river is called the Amazon River. This event is so beautiful that it attracts many tourists to the region every year.

Questions

1. In which country is the source of each river (Rio Negro and Rio Solimões) located?

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2. In which region do the Rio Negro and the Rio Solimões meet?

3. What are the main differences between the waters of each river?

4. What are possible reasons why the rivers do not mix? Use your knowledge of science to formulate reasons (hypotheses) for this phenomenon.