

Day 5 · Groundwater flow

Read this passage, then answer all three questions using details from this page. Explain how a detail supports your thinking. You do not need information from another day.

Where Does Groundwater Move?

Most groundwater does not flow through open underground rivers. Instead, it occupies small spaces among soil and rock, a little like water filling gaps in a packed material. Rain and snowmelt can seep into the ground. After reaching the saturated zone, water may move down or sideways. Open cave passages, lava tubes, and some springs can carry water through larger spaces, but these are exceptions.

Layers affect the route. If moving water meets dense material that is harder to pass through, some may turn and travel more horizontally. The speed also depends on how much open space the rock has and how easily water can move through it, along with the aquifer and nearby layers. Because these conditions differ from place to place, one picture or depth label cannot predict groundwater speed everywhere.

Sources: U.S. Geological Survey Water Science School, "Groundwater Flow and the Water Cycle."
Original paraphrase; no source text reproduced.

Question 1

How does the passage challenge the idea that most groundwater flows in underground rivers? Use two details.

Use evidence and explain your thinking:

Question 2

What may happen when groundwater reaches a dense layer that is hard to pass through? Explain the change in direction.

Use evidence and explain your thinking:

Question 3

Why would one diagram or depth label not be enough to predict groundwater speed everywhere?

Use evidence and explain your thinking:
