

Solvent the Problem

Taken from Fifer, F. & Ledbetter, C. (2000). *Penny Ante Science*®. Dallas: SCE Associates.

Use these **extensions** to inspire your own creativity to integrate these activities into your present curriculum.

Ecology: Many substances dissolve in water. These materials may or may not benefit the organisms in an ecosystem. These compounds and elements must be kept in balance for organisms and even ecosystems to remain functional. If the level of any chemical rises too high or drops too low, the organisms suffer. How might chemicals humans put into the water affect organisms that live deep in the ocean?

Geology: Materials dissolved in water may eventually be deposited to form such rocks as limestone. These limestone beds build up to make landforms such as mountains. Through erosion, particles from the continents are brought to the oceans. What would happen if none of these earth materials dissolved in water? Would we have stalactites and stalagmites?

Humankind: Sun, water, and soil are needed for plant growth. Plants use water to transport nutrients from the soil up into their cells. The runoff from fertilized crops and yards combines to put materials into our water that may have an adverse effect on our environment. How do these materials get into our water? What would happen if water were not such a good solvent?

These detailed **correlations** indicate direct applicability to specific standards; others may be implied.

Texas Essential Knowledge & Skills (TEKS)*	K-2	3-6	6-8	IPC, Biology, Chemistry, Physics	Aquatics, Astronomy, Environmental, GMO
			7.1, 2, 4, 7, 14 8.1, 2, 4, 8, 9, 10	IPC.1, 2, 7, 8, 9 Chemistry.1, 2, 4, 8, 11, 12, 13	Aquatics.1, 2, 3, 4, 8

* Compiled from Ledbetter, C. (2000) *TEKSing through Penny Ante Science*®. Dallas: SCE Associates. Specific listing within any category pre-supposes applicability to the general process TEKS for each area.