**What’s in the Water?**

Integrated Science

*Below you will find 5 scenarios requiring your help. Each scenario involves a water contamination mystery. You will use the list of contaminants and characteristics you matched up to identify what’s in the water in each case.*

*For each scenario you will use our CER format for your response.*

*-You will make a claim about what contaminants are present.*

*-State the evidence from the prompt that leads you to this claim.*

*-provide reasoning using your characteristics list to make the case for why your evidence supports that claim.*

*You will work in groups and submit one final copy.*

1. John turns on the faucet to find the water is brown and seems to have particles floating in it. He is upset because this happens often after large rainstorms. He sees this as a repeated disruption and needs to call the water company to complain. What will the water bureau most likely say is the issue?
2. Carlos lives in a small town near the ocean. He works at a local mine but has been out of work for the past couple of days because he has been experiencing diarrhea. Carlos almost never gets sick so he is curious about where his illness is coming from. For the past month his water has had a funny taste and his pipes have been showing signs of trouble. “Could it be something in the water?” Carlos thought. He remained confused because the water had tasted funny for a while and this diarrhea was something new.
3. A small farming town in rural America has a population under 3,000. The people of this town live simple lives and never thought they had reason to be concerned about anything. Recently however, a new town physician opened a practice after the passing of longtime physician Dr. Brown after 52years of service to the community. The new physician is noticing the people of this community have much higher incidences of kidney problems. The physician has brought these observations to local authorities and has called for testing of local water supplies because it seems the affected families share a water supply. What should local authorities test for as the most likely cause of illness?
4. Lydia has been ill for almost 2 weeks. After starting to lose weight and experiencing a fever she has decided to come into the Emergency Room for help. She tells the attending physician that 2 weeks ago she returned from a trip in Sri Lanka where she worked helping local dairy farms and slaughter houses keep their barns tidy. While there she drank only bottled water, but near the end of her trip on occasion she brushed her teeth with tap water. Determine a possible cause for her illness.
5. There have been two unexpected deaths of seeming healthy young men in a town that has a number factories. Autopsies revealed liver damage and brain tumors in both men. The causes of death are unknown but local authorities don’t seem to be paying much attention to the death because they are currently busy investigating some of the local factories for inappropriate disposal of toxic waste. Could the two situations be connected? What should the authorities be considering with relation to the two cases? What are possible causes for the deaths?