

## Answers to Questions to Consider Worksheet

1. Are there similar numbers of eggs in each condition at time 0? If not, identify which are different. Explain how this might affect your interpretation of the results.  
*Answers will depend upon individual results*
2. After 48 hours, what did you observe about the appearance of the hatched brine shrimp in the control dish?  
*They should be actively swimming in the marine salt solution.*
3. After 48 hours, what do you observe in each of the dishes containing alcohol? (Compare 1%, 2.5% and 5% conditions.)  
*1% alcohol: There should be several live brine shrimp swimming, but fewer than in the control. Some brine shrimp will appear dead or immature and there will be many unhatched eggs.*  
*2.5% alcohol: There would be few live brine shrimp; some dead or immature brine shrimp, and many unhatched eggs.*  
*5% alcohol: There would be no live brine shrimp, no immature brine shrimp. Virtually all the eggs are unhatched.*
4. What do your results tell you about the affect of alcohol on hatching of brine shrimp eggs?  
*The higher the concentration of alcohol the more damaging the effects on brine shrimp hatching and well-being.*
5. Do you think the development of other organisms can be affected by alcohol?  
*Yes, as shown in the introductory video, humans and mice can be affected by alcohol exposure during pregnancy. In fact, we would expect that all organisms might be adversely affected.*
6. If you could run this experiment again what other variable would you like to consider?  
*This answer will vary. Variables might include, temperature, incubation time or even a different pollutant.*
7. How would you test the influence of that variable on brine shrimp egg hatching?  
*The answer will depend upon the variable selected. Experiments should include a comparison between the control condition and the experimental condition(s).*

