Project Brine Shrimp: Information Sheet

**Kingdom:** Animalia  
**Phylum:** Arthropoda  
**Subphylum:** Crustacea  
**Class:** Branchipoda  
**Order:** Anostraca  
**Family:** Artemiidae  
**Genus:** *Artemia*  
**Species:** *salina*

The common brine shrimp (aka sea monkeys) are a species of aquatic crustaceans of the genus *Artemia*. They are closely related to zooplankton such as Daphnia and are found worldwide in both coastal and inland hypersaline environments, such as salt lakes. Aquarists often use them as live food for saltwater aquariums.

Brine shrimp eggs are metabolically inactive and can remain in total stasis for several years while in a dry, oxygen-free environment, even at temperatures below freezing. This characteristic is called 'cryptobiosis' or 'diapause'. Once placed in water the cyst-like eggs hatch within a few hours, and will grow to a mature length of around one cm on average. Brine shrimp have a short life span and, alongside other characteristics such as their ability to remain dormant for long periods, means they are invaluable to scientific research.

**With your group design and conduct experiments using brine shrimp to test how changes to physical environmental conditions affects their growth and survival.**

**Specifications:**
- Be resourceful and creative with the equipment/materials made available to you
- Samples of brine shrimp should be tested in Petri dishes
- Make sure the initial conditions in each sample are tested and recorded before making changes
- Make sure initial numbers of eggs/hatchlings are counted and recorded prior to testing so you have something to compare results with!
- Have a control sample
- Tests should be specific and use defined increments to change conditions by
- Make a data sheet and have an method of analysis that is appropriate for collecting results
- Make use of your group! Divide and conquer individual tasks.