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Measuring is believing: quantifying adaptation behaviour of *Hydra*

Activity worksheet 2

Discuss and answer the questions below.

What could the time periods of the movement represent in the *Hydra's* natural environment?

How often did the *Hydra* contract in the 2.5 min of observation time?
When did these contractions occur?

Did the two animals tested for each time period respond in the same way (yes/no)? Explain your answer. How many animals do you think are ideal for this experiment?

Why did we count the number of contractions to compare the different time period trials?

Why would the *Hydra* not want to stay contracted forever?

Do the results support our class hypothesis? Why or why not?

What future experiments can you come up with to explore this topic further?

How does *Hydra*'s nerve net compare to the nervous system in the human body?

While experiments on vertebrate animals are regulated by laws in many countries, no laws exist for invertebrates, such as *Hydra*. Given what you have learned about *Hydra*'s nervous system and its ability to sense and adapt to its environment, what do you think are important factors to consider when studying *Hydra* and other invertebrates?