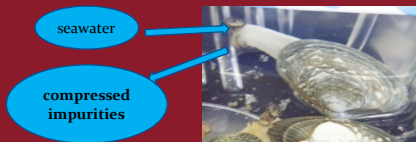


The Relationship Between the Short-Neck Clam's Water Purification and Light

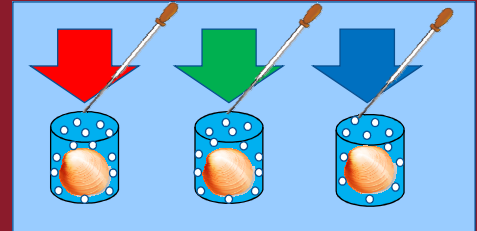
Introduction

The short-neck clam is said to clean the water that it sucks in. This is because a short-neck clam breathes by sucking in seawater and discharging compressed impurities of seawater.



Experiment2

Dissolve rice flour in water and pour it into each beaker. Cover each Short-neck clam with red, green and blue light.



Purpose

To find what kind of environments affect the short-neck clams' ability to purify water.



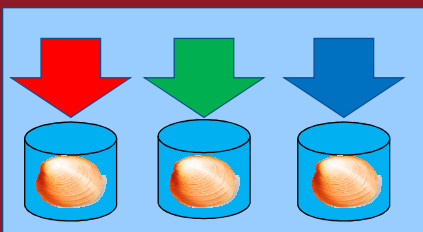
We focused on light in this research.

Purpose-2

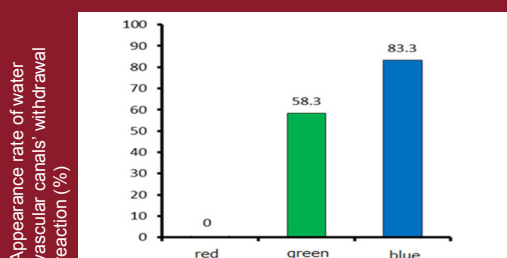
- ① To confirm if short-neck clams sense or detect the color of light.
- ② To confirm if light colors affect the short-neck clams' ability to purify water.

Experiment1

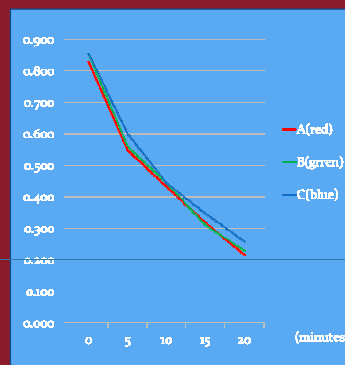
Cover each short-neck clam with red, green and blue light



Result1



Result2



As you can see, the absorbance of liquid mixture by each short-neck clam is almost equal.

From this, we think that the colors of light don't affect the short-neck clams' ability to purify water.

Conclusion

○ Short-neck clams didn't react to red light and strongly reacted to blue light.

○ Short-neck clams can recognize light colors, and its sense organ reacts to shorter wavelength.

○ Each beaker showed similar change of absorbance.

○ There is no relationship between the short-neck clams' purification of seawater and color of light.

The short-neck clams' purification of seawater is hardly affected by the wavelength of light.

Challenges

Since we were unable to observe any relationship between the color of light and the short-neck clams' ability to purify water, we are going to continue to look for the kind of environmental factors that affect their ability to purify water.



For example

- Water temperature
- pH of water
- Oxygen density