**Functions of life**

**MR H GREN**



*Source:*

*http://umanitoba.ca/Biology/BIOL1030/Lab1/biolab1\_3.html#Ciliophora*

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| --- | --- |
| **Function** | **Description** |
| M = Metabolism | Most metabolic pathways happen in the cytoplasm |
| R = Response | The wave action of the cilia moves the paramecium in response to changes in the environment, e.g. towards food. |
| H = Homeostasis | Contractile vacuole fill up with water and expel I through the plasma membrane to manage the water content |
| G = Growth | After consuming and assimilating biomass from food the paramecium will get larger until it divides. |
| R = Reproduction | The nucleus can divide to support cell division by mitosis, reproduction is often asexual |
| E = Excretion | The plasma membrane control the entry and exit of substances including expulsion of metabolic waste |
| N = Nutrition | Food vacuoles contain organisms the paramecium has consumed |

Source: http://www.algae.info/Algaecomplete.aspx



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| --- | --- |
| **Function** | **Description** |
| M | Most metabolic pathways happen in the cytoplasm |
| R | The wave action of the cilia moves the algae in response to changes in the environment, e.g. towards light. |
| H | Contractile vacuole fill up with water and expel I through the plasma membrane to manage the water content |
| G | After consuming and assimilating biomass from food the algae will get larger until it divides. |
| R | The nucleus can divide to support cell division, by mitosis (these cells are undergoing cytokinesis) |
| E | The plasma membrane control the entry and exit of substances including the diffusion out of waste oxygen. |
| N | Photosynthesis happens inside the chloroplasts to provide the algae with food |

**To what extent can fire be justified as living?**



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| --- | --- |
| **Function** | **Description** |
| M |  |
| R |  |
| H |  |
| G |  |
| R |  |
| E |  |
| N |  |