N5 Biology **LE4 Energy in Ecosystems** LEARNING OUTCOMES

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| -+\* | by the end of each lesson you should know (including meanings of **key words**) |
| **Energy in food chains** |  | * I can state that in food chains energy is **transferred** from one level to the next
* I can state that animals use energy for **growth**, **movement** and generating **heat** to keep warm.
* I can state that some of the food in a food chain is **indigestible** e.g. stems, bones.
* I can state that as it transfers from one level to the next in a food chain, the **majority of the energy is lost** as heat, movement or undigested materials
* I can stat that only a very small quantity of the energy is used for **growth** and is therefore available at the **next level** in a food chain
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| **Pyramid diagrams** |  | * I can state that **pyramids of numbers** show the total number of each organism at each trophic level of a food chain.
* I can explain why **irregular shapes** of pyramids of numbers based on different body sizes can be represented as true pyramids of energy. E.g.
* if there is a **large producer** e.g. oak tree, the pyramid will have a small base
* if there is a **small final consumer** e.g. fleas, the pyramid will have a wide top
* I can state that pyramids of energy show the total energy available at each trophic level of a food chain.
* I can state that energy is measured as **kilojoules per metre squared per year - kJ/m2/year**
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