Coursework 23/02/2021

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# Starter

1. C - Green woodpecker and great spotted woodpecker
2. D- The role that an organism plays within its community

# Underlying Biology: what do we know already?

1. The term ‘adaptation’ means how a species has adapted, this could include behavioural adaptation, physiological adaptations and structural adaptation.
2. An example of a behavioural adaptation could be a dog learning to open doors, this benefits them as they may be doing this to assist a blind person or save someone's life in an emergency.
3. ‘Natural selection’ means the adaptation of species to survive and reproduce, those who don’t adapt will not survive.
4. Selection Pressures are the pressures that organisms face for survival.
5. Organism adaptations are crucial during natural selection as if they don't adapt they will not survive.

# Aim: what are we trying to do?

Aim: “To investigate the effect of the type of beak on the success of the organism collecting food”

# Variables

* The independent variable is the type of beak
* The dependent variable is the success of the organism collecting food.
* The controlled variable is the food we are collecting.

# Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Beak type | Pasta | Skittles | Rice | Coins |
| Spoon | 28 |  | 43 |  |
| Knife | 0 |  | 0 |  |
| Toothpick | 5 |  | 0 |  |
|  |  |  |  |  |

# Conclusion

This experiment has shown us that a spoon allowed us to get the most food, and the knife was the least effective, we know this as we got 28 pasta and 43 rice with the spoon but nothing with the knife.

# Evaluation

The investigation went well as it was performed correctly and showed me how different shaped beaks effect how much food the finch can get, we can improve the reliability of theresultw by taking more food sources and more beaks and repeating multiple times.

# Applying your knowledge

A spoon shaped beak allows the finch to get the most foods it can scoop up the food and hold it.

# Plenary: Data Analysis

1. As the hormone concentration (ppm) increases, the Average heart rate (bpm) decreases, we know this because at 0.25 ppm the heart rate was at 4.2 bpm, but at 1.00 ppm the heart rate was at 3.2bpm.
2. This control allows us to see the heart rate without the hormone affecting it.
3. 0.25:4.2 and 1:1.2