



**Saving the Kakapo**

- What is a kakapo? \_\_\_\_\_
- The **Kakapo**, *Strigops habroptila* is a species of large, \_\_\_\_\_ parrot endemic to New Zealand
- It is the world's heaviest parrot, weighing up to \_\_\_\_\_ pounds.



How are researchers trying to save them?

- Incubating eggs and \_\_\_\_\_
  - Almost \_\_\_\_\_ of the population consists of handraised birds
  - Thanks to the \_\_\_\_\_ intervention, more kakapos have been returned to the wild
- Regular Health Checks
  - Birds are checked annually by being \_\_\_\_\_, blood samples taken, and checked for \_\_\_\_\_
- Supplementary feeding
  - A special diet is put out in \_\_\_\_\_ so the parrots always have a food source

Something interesting happened...

- Scientists were collecting data to see how many chicks were hatched after the feeders were put out.
- They were happy to find that more \_\_\_\_\_ hatched thanks to the feeders.
- They also realized that there were more \_\_\_\_\_ chicks hatched from females who ate from the feeders.
- What could have caused this?

Basic Scientific Method

- Ask the Question: what are you trying to \_\_\_\_\_?
- Hypothesis: Make an \_\_\_\_\_ guess about what you think might happen; no wrong answers!
- Experiment: Always do many experiments to test your \_\_\_\_\_
- Collect Data: Collect your \_\_\_\_\_ and organize them for better understanding
- Analyze results: What did the \_\_\_\_\_ tell you?
- Conclusion: State the outcome of your \_\_\_\_\_ and how it affects your \_\_\_\_\_.
- Share your Findings: sharing with others who might have the same questions expands understanding of biology



Let's see how this method is applied to the kakapo recovery program...

### Ask the Question

What do we know about the kakapo? What do they need to produce healthy chicks?

- It costs more \_\_\_\_\_ to produce a big male than a female.
- If resources are \_\_\_\_\_, a son can be produced.
- They picked a \_\_\_\_\_ variable to observe: diet.
- Variable: the thing you test that differs from the \_\_\_\_\_ group which is unchanged.
- **Our question:** \_\_\_\_\_?



### Hypothesis

- Hypothesis: an educated guess based on prior \_\_\_\_\_
- Write **ONLY ONE** of the hypotheses:  
— \_\_\_\_\_
- Does it matter if your hypothesis is proven false? \_\_\_\_\_

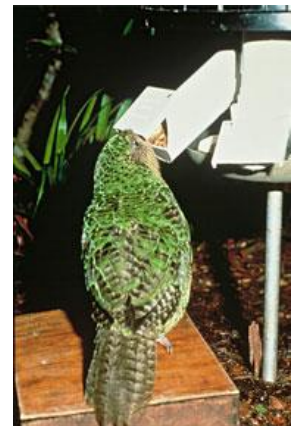
### Experiment

#### Procedure:

- 1) **Weigh all \_\_\_\_\_ birds**
- 2) **For hens over \_\_\_\_\_ kg (\_\_\_\_\_ lbs), cut the supplemental diet (experimental group)**
- 3) **For hens under \_\_\_\_\_ kg (\_\_\_\_\_ lbs), continue the supplemental diet (control group)**
- 4) **After the breeding season, count the number of \_\_\_\_\_ and \_\_\_\_\_ chicks in each group**
- 5) **Calculate the percentage of \_\_\_\_\_ chicks for each group**
- 6) **Collect and compare data to \_\_\_\_\_ group**

#### Materials & Methods

- Weigh scale and feeder
  - Birds must get on the \_\_\_\_\_ to eat from the feeder
- High quality feed
  - High in \_\_\_\_\_ and \_\_\_\_\_ for hens to bulk up for breeding season



**Collect data**

- What percentage of male chicks were produced by hens on the supplemental diet? \_\_\_\_\_
- What percentage of male chicks were produced by hens on the reduced diet? \_\_\_\_\_

**Analyze Results**

- What do the results tell us? \_\_\_\_\_
- How do we know this is what the results mean? \_\_\_\_\_

**What were the strengths of this experiment?**

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_

**What were the weaknesses of this experiment?**

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_

**Conclusion**

- Write a 3-5 sentence conclusion, including the following:
- A summary of the experiment,
- Restate your hypothesis,
- Explain why the data proved your hypothesis true or false, and
- What would you do different to make the experiment more effective.



**Write your conclusion here:**

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