Natural Selection Outline Notes

How do genetics change over several generations?
Changes occur ________________________________________________________________

What exactly is natural selection?

- The process ________________________________________________________________
- These are ________________________________________________________________

Who figured this out?

- Most people did not become aware of the theory of evolution until __________, when _______________ published his book ________________________________________________________________
- This book described the observations and evidence that he collected over ______________ of intensive research, beginning with a ______________________ around the world on a British research ship, the __________.
- During this five-year voyage, Darwin was able to make __________________________________________ spread around the world, and to collect ______________ to study when he returned to __________.

The Galapagos Islands

- Darwin’s best known discoveries were made on the __________________, a group of 16 __________ near the equator about 600 miles from the west coast of South America.
- Allowed ______________ to take place
- Species ____________________________________________ than on the “mainland”
- Example:
- Key understanding:
- Curiously, they looked ______________, ate different ______________, and behaved ______________, but _______________________________
- Answer: ______________________________________________

Darwin’s Finches:

- They had varied sizes and shapes of beaks.
- There are now at least ____________________________ on the ______________ Islands, each filling a _____________________________. All of them evolved from one ancestral species.
What Darwin learned from these finches –

- **Beaks highly adapted to food source**
  - Large beaks -
  - Small beaks -
  - Other adaptations were

**Theory of Natural Selection - (Darwin’s Conclusions)**

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Darwin’s 5 key points in the Theory of Natural Selection:

1. 
2. 
3. 
4. 
5. 

Natural Selection:

- Fitness is the key to natural selection.
- Biological fitness is __________________________
- it also reflects an organism's ability to __________________________

Factors affecting natural selection:

1. Overpopulation –

2. Competition –

3. Variation -