Evolution by Natural Selection

Introductory Assignment

**Directions:**  Answer the following questions as directed on a separate sheet of paper.

1. **Discuss** what is meant by the term *evolution*?

1. **Explain** the following equation. [This should be more than mere definitions of each term.  Use examples AND connect the concepts to one another.]

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| variation + differential reproduction + heredity = natural selection |

1. **Refute** the following misconceptions regarding natural selection. [Again, it might be useful to draw on examples to add depth/detail to your explanations/justifications.
   1. *Natural selection is goal-oriented, fashioning the perfectly adapted organism.*
2. *Natural selection is a random process.*
3. *Species can evolve what they need to survive.*
4. *Natural selection is the only mechanism for evolution.*