



What did Zhang Zhou think about evolution?

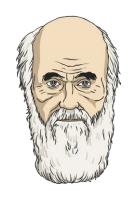




What was the difference between Augustine of Hippo and Ibn Khaldun's views on evolution?



What was Malthus's main idea?

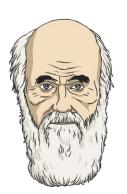




What was similar about Darwin and Wallace's ideas about evolution?



Why did some animals survive better than others according to Al-Jahiz?





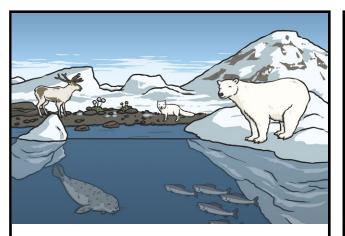
How were Charles Darwin's ideas about evolution different to his grandfather, Erasmus Darwin's?



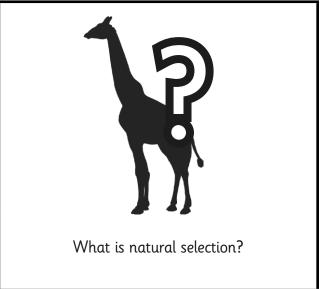




Compare and contrast Tusi and Leclerc's ideas. Whose ideas were closer to Darwin's?
Why do you think this?



Who believed that the environment was important in the evolutionary process?







- What did Zhang Zhou think about evolution?
   Zhang Zhou believed that plants and animals did change and the species were not fixed.
- 2. What was the difference between Augustine of Hippo and Ibn Khaldun's views on evolution?
  - Augustine of Hippo believed that living things had been transformed slowly over time, whereas Ibn Khaldun believed that living things could transform from one thing to another.
- 3. What was Malthus's main idea?

  Malthus's main idea was that as populations grew,
  food would become scarcer, which would result
  in some people dying of disease or hunger.
- 4. What was similar about Darwin and Wallace's ideas about evolution?

  Darwin and Wallace both believed that the
  environment could lead to adaptations that were
  advantageous to a species and result in evolution.
- 5. Why did some animals survive better than others according to Al-Jahiz?

  Al-Jahiz believed that animals struggled for existence and resources and that those that were able to avoid being eaten and breed the most successfully were better able to survive.

- 6. How were Charles Darwin's ideas about evolution different to his grandfather, Erasmus Darwin's?
  Erasmus Darwin believed that the strongest and most active animals would reproduce and survive; however, Charles Darwin believed that living things that had adapted to their environment would survive due to inherited traits.
- 7. Compare and contrast Tusi and Leclerc's ideas. Whose ideas were closer to Darwin's? Why do you think this?

Accept either of the following:

- Tusi's ideas are closer to Darwin's because he believed that living things could gain an advantage if they developed new features, which is similar to Darwin's theory of natural selection.

  Leclerc's ideas are more similar to Darwin's because he believed that all mammals descended from 38 original animals, which is similar to Darwin's theory of a single origin of life.
- 8. Who believed that the environment was important in the evolutionary process?
  - Alfred Wallace and Charles Darwin believed that the environment was important in the evolutionary process.
- 9. What is natural selection?
  Natural selection is the idea that living things that have adapted or changed to suit their environment have an advantage over their counterparts, and so survive due to these changes.







What did Zhang Zhou think about evolution?





What was the difference between Augustine of Hippo and Ibn Khaldun's views on evolution?



What was Malthus's main idea?

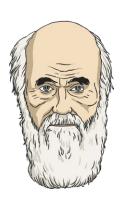




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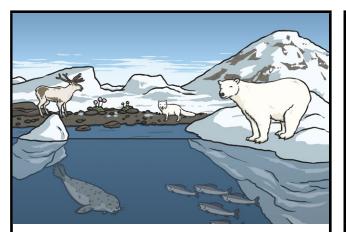
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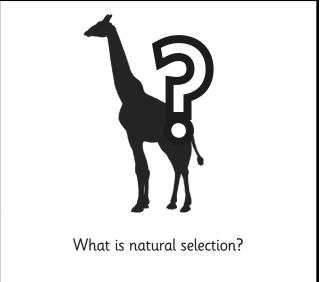




Compare and contrast Tusi and Leclerc's ideas. Whose ideas were closer to Darwin's?
Why do you think this?



Who believed that the environment was important in the evolutionary process?





Which thinkers argued that there was a single point of origin?



Select three thinkers. How are their ideas similar? How are they different?



What was transmutation? Who argued that transmutation occurred?









How were the views of Anaximander and Darwin similar? How were they different?





What was different about Epicurus's and Augustine of Hippo's ideas? What was the same?



Which two thinkers had the most different ideas about natural selection? Explain your answer.



Which two thinkers had the most similar idea about natural selection? Explain your answer.



Which two thinkers had the most similar ideas about evolution?



Which two thinkers had the most different ideas about evolution?





- What did Zhang Zhou think about evolution?
   Zhang Zhou believed that plants and animals did change and that the species were not fixed. He also believed that the
  - and that the species were not fixed. He also believed that the environment affected the attributes of different living things.
- 2. What was the difference between Augustine of Hippo and Ibn Khaldun's views on evolution?
  - Augustine of Hippo believed that living things transformed slowly over time, whereas Ibn Khaldun believed living things could transform from one thing to another.
- 3. What was Malthus's main idea?

  Malthus's main idea was that as populations grew,
  food would become scarcer, which would result
  in some people dying of disease or hunger.
- 4. What was similar about Darwin and Wallace's ideas about evolution?

  Both Darwin and Wallace believed that living things adapted to their environments, and that natural selection would allow certain variants of a species a higher chance of survival.
- 5. Why did some animals survive better than others according to Al-Jahiz?

  Al-Jahiz believed that animals struggled for existence and resources and that those that were able to avoid being eaten and breed the most successfully were better able to survive.

- 6. How were Charles Darwin's ideas about evolution different to his grandfather, Erasmus Darwin's?
  Erasmus Darwin believed that the strongest and most active animals would reproduce and survive; however, Charles Darwin believed that living things that had adapted to their environment would survive due to inherited traits.
- 7. Compare and contrast Tusi and Leclerc's ideas. Whose ideas were closer to Darwin's? Why do you think this?

Accept either of the following:

- Tusi's ideas are closer to Darwin's because he believed that living things could gain an advantage if they developed new features, which is similar to Darwin's theory of natural selection.

  Leclerc's ideas are more similar to Darwin's because he believed that all mammals descended from 38 original animals, which is similar to Darwin's theory of a single origin of life.
- 8. Who believed that the environment was important in the evolutionary process?
  - Alfred Wallace and Charles Darwin believed that the environment was important in the evolutionary process.
- 9. What is natural selection?
  Natural selection is the idea that living things that have adapted or changed to suit their environment have an advantage over their counterparts, and so survive due to these changes.





- 10. Which thinkers argued that there was a single point of origin?

  Charles Darwin and Georges-Louis Leclerc argued that there was a single point of origin.
- 11. Select three thinkers. How are their ideas similar? How are they different? **Children's own responses.**
- 12. What was transmutation? Who argued that transmutation occurred?

  Transmutation is the evolution of a species due to inherited traits that helped them adapt to the environment.

  Lamarck argued that transmutation occurred.
- 13. How are the views of Anaximander and Darwin similar? How were they different?
  - Anaximander and Darwin's views are similar because
    Anaximander believed that the first animals lived under water
    when the earth was wet, which would support the idea of
    Darwin's that animals must have evolved when there was less
    water on the earth. However, they are not similar because Darwin
    did not believe that all animals originally lived under water.
- 14. What was different about Epicurus and Augustine of Hippo's ideas? What was the same?
  - Epicurus and Augustine of Hippo both believed that a god or goddess created life and species. However, Augustine believed that living things transformed slowly over time, whereas Epicurus believed that the living things did not change, and only those that functioned the best survived.

- 15. Which two thinkers had the most different ideas about natural selection? Explain your answer.
  - Children's own responses, such as: I think that Tusi and Empedocles had the most different ideas. Empedocles believed that plants and animals either survived or died, whereas Tusi believed that living things could adapt to gain an advantage to survive.
- 16. Which two thinkers had the most similar ideas about natural selection? Explain your answer.
  Children's own responses, such as: I think that Malthus and Al-Jahiz had the most similar ideas about natural selection because both agreed that food and resources were an important factor for survival.
- 17. Which two thinkers had the most similar ideas about evolution?

  Children's own responses, such as: I think that Pierre Louis

  Maupertuis and Georges-Louis Leclerc had the most similar

  ideas about evolution because both believed that new

  species were created by adaptations of living things.
- 18. Which two thinkers had the most different ideas about evolution?

  Children's own responses, such as: I think that Augustine of Hippo and Ibn Khaldun had the most different ideas about evolution because Ibn Khaldun believed that living things transformed from one thing to another, whereas Augustine of Hippo believed living things were transformed over time.





Who were the main thinkers behind the idea of 'survival of the fittest'? Explain your answer.

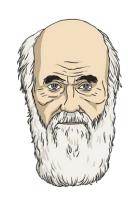




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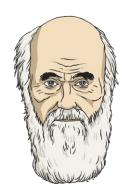


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What was similar about Darwin and Wallace's ideas about evolution?





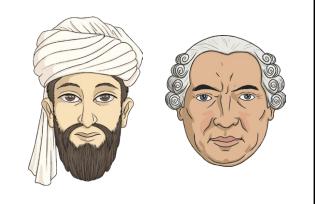
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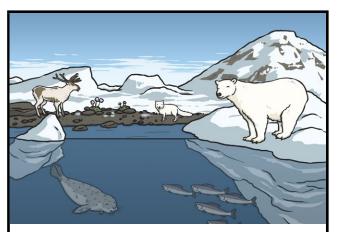
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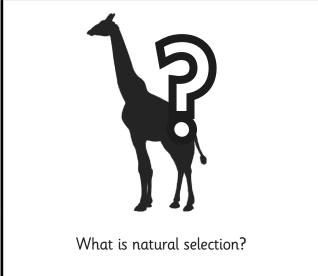




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Why do you think this?



Who believed that the environment was important in the evolutionary process?





Which thinkers argued that there was a single point of origin?



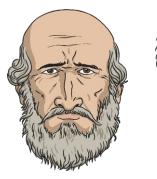
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What was transmutation? Who argued that transmutation occurred?









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What was different about Epicurus's and Augustine of Hippo's ideas? What was the same?



Which two thinkers had the most different ideas about evolution?



Which two thinkers had the most similar ideas about evolution?





- Who were the main thinkers behind the idea of 'survival of the fittest'?
   Explain your answer.
  - Accept any responses that indicate living things' survival is based on their characteristics, such as: I believe Charles Darwin, Alfred Wallace and Tusi were the main thinkers behind the idea of 'surivial of the fittest' because they all shared the idea that some animals adapted to suit their environment or to gain an advantage and that this helped them to survive.
- 2. What was the difference between Augustine of Hippo and Ibn Khaldun's views on evolution?
  - Augustine of Hippo believed that living things transformed slowly over time, whereas Ibn Khaldun believed living things could transform from one thing to another.
- 3. Which two thinkers had the most different ideas about natural selection? Explain your answer.
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  Darwin and Wallace both believed that the
  environment could lead to adaptations that were
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- 5. How were Charles Darwin's ideas about evolution different to his grandfather, Erasmus Darwin's?
  - Erasmus Darwin believed that the strongest and most active animals would reproduce and survive; however, Charles Darwin believed that living things that had adapted to their environment would survive due to inherited traits.
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- 7. Compare and contrast Tusi and Leclerc's ideas. Whose ideas were closer to Darwin's? Why do you think this?

Accept either of the following:

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- 8. Who believed that the environment was important in the evolutionary process?
  - Alfred Wallace, Lamarck, Zhang Zhou and Charles Darwin believed that the environment was important in the evolutionary process.
- 9. What is natural selection?
  - Natural selection is the idea that living things that have adapted or changed to suit their environment have an advantage over their counterparts, and so survive due to these changes.
- 10. Which thinkers argued that there was a single point of origin? Charles Darwin and Georges-Louis Leclerc argued that there was a single point of origin.
- 11. Select three thinkers. How are their ideas similar? How are they different? **Children's own responses.**
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