



## Introduction

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Welcome to our lesson on the development of bipedalism and its impact on human physiology! In this worksheet, we will explore the fascinating topic of how humans evolved to walk on two legs and how this has affected our bodies.

### Foundation:

What is bipedalism? Draw a picture of a human walking on two legs.

### Core:

Write a short paragraph explaining the advantages of bipedalism.

### Extension:

Research and write a short essay on the evolution of bipedalism in humans.

## Human Evolution Timeline

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Create a timeline of the major milestones in human evolution, highlighting the development of bipedalism.

### Foundation:

Match the following events with their corresponding dates:

- Emergence of early hominins: \_\_\_\_\_
- Development of bipedalism: \_\_\_\_\_
- Emergence of Homo sapiens: \_\_\_\_\_

### Core:

Write a short paragraph explaining the significance of each event in the timeline.

### Extension:

Research and add additional events to the timeline, including the development of tools and language.

## Anatomical Changes

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Label the following diagram of the human skeleton, highlighting the changes that occurred as a result of bipedalism.

### Foundation:

Label the following bones:

- Pelvis: \_\_\_\_\_
- Femur: \_\_\_\_\_
- Tibia: \_\_\_\_\_

### Core:

Write a short paragraph explaining the functions of each bone and how they have adapted to bipedalism.

### Extension:

Research and write a short essay on the comparative anatomy of human and non-human primates.

## Physiological Changes

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Explain the physiological changes that occurred as a result of bipedalism, including the development of a larger brain and more efficient cardiovascular system.

### Foundation:

Match the following physiological changes with their corresponding benefits:

- Larger brain: \_\_\_\_\_
- More efficient cardiovascular system: \_\_\_\_\_
- Improved balance and coordination: \_\_\_\_\_

### Core:

Write a short paragraph explaining the significance of each physiological change.

### Extension:

Research and write a short essay on the impact of bipedalism on human physiology, including the effects on the nervous and muscular systems.

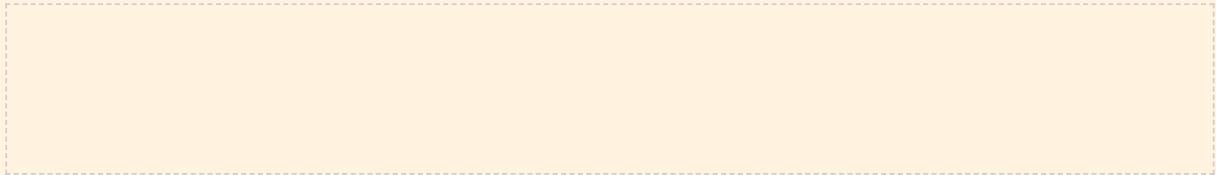
## Health Implications

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*Discuss the health implications of bipedalism, including the increased risk of back pain and joint problems.*

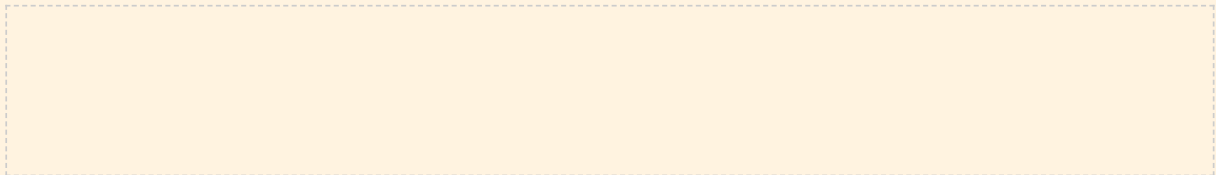
### **Foundation:**

Draw a picture of a human with back pain or joint problems and write a short sentence explaining the cause.



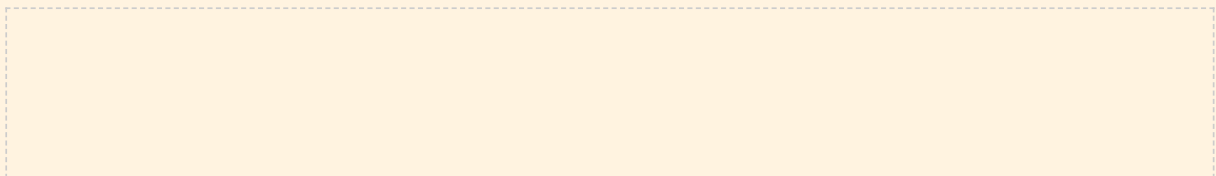
### **Core:**

Write a short paragraph explaining the health implications of bipedalism and how they can be mitigated.



### **Extension:**

Research and write a short essay on the impact of bipedalism on human health and well-being, including the effects of sedentary lifestyles.



## Case Study

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Read the following case study and answer the questions:

"John is a 35-year-old man who has been experiencing back pain and joint problems due to his sedentary lifestyle. He has recently started exercising and stretching to improve his posture and reduce his symptoms."

### Foundation:

What is the main cause of John's back pain and joint problems? \_\_\_\_\_

### Core:

What steps can John take to improve his posture and reduce his symptoms? \_\_\_\_\_

### Extension:

Research and write a short essay on the importance of exercise and stretching in maintaining a healthy spine and joints.

## Debate

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Participate in a debate on the following topic: "Bipedalism is the most important adaptation in human evolution."

### Foundation:

Write a short paragraph explaining your opinion on the topic.

### Core:

Write a short essay explaining your argument for or against the topic.

### Extension:

Research and write a short essay on the significance of bipedalism in human evolution, including its impact on human physiology and behavior.

## Creative Activity

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Create a piece of artwork or writing that represents the development of bipedalism and its impact on human physiology.

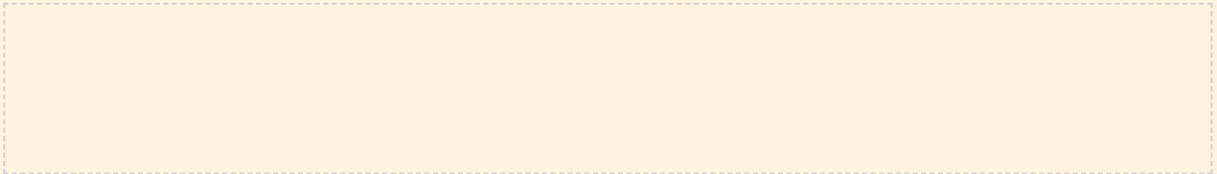
### Foundation:

Draw a picture of a human walking on two legs.



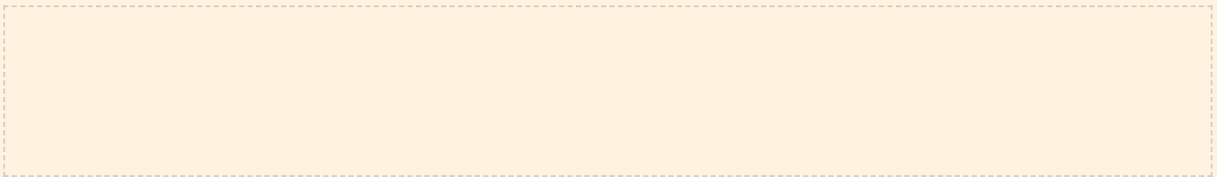
### Core:

Write a short poem or story about the evolution of bipedalism.



### Extension:

Create a short film or animation that explores the development of bipedalism and its impact on human physiology.





## Quiz

Complete the following quiz to test your understanding of the development of bipedalism and its impact on human physiology.

### Foundation:

Multiple-choice questions:

- What is bipedalism? \_\_\_\_\_
- What is the main advantage of bipedalism? \_\_\_\_\_
- What is the main health implication of bipedalism? \_\_\_\_\_

### Core:

Short-answer questions:

- Explain the significance of the development of bipedalism in human evolution.
- Describe the anatomical changes that occurred as a result of bipedalism.
- Discuss the health implications of bipedalism and how they can be mitigated.

### Extension:

Essay question: Discuss the impact of bipedalism on human physiology and behavior, including its effects on the nervous and muscular systems.

## Conclusion

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*Congratulations on completing our worksheet on the development of bipedalism and its impact on human physiology! We hope you have learned something new and interesting about this fascinating topic.*

### **Foundation:**

Write a short sentence summarizing what you have learned.

### **Core:**

Write a short paragraph summarizing the main points of the worksheet.

### **Extension:**

Research and write a short essay on the significance of bipedalism in human evolution and its impact on human physiology and behavior.

