

# Exploration I Systems

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August 28

phenomena: observable events  
~~phenomena~~ ~~observable~~ event

or circumstances  
What part of

What would be affected due to earth warming?

- plants would dry
- do you think ~~leaves~~ ~~could get~~ ~~so~~ ~~affected~~ by a warmer Earth?

atmosphere / geosphere / hydrosphere

↓  
air

↓  
land

↓  
water  
oceans

I think that the \_\_\_\_\_ would be affected most by a warmer earth because...

... I think the water would be most affected. Even a warmer Earth because fish would die due to the change in the temp they would have to re-adapt.

# Life in Earth System

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How similar are living and nonliving systems? Claim: Robot is 'perfect companion'. Make a case to support or refute claim.

I think that the robot \_\_\_\_\_  
the perfect companion because...

- They cannot replicate the same things that people do. It is the perfect companion because...
- The technology is built to help people.

System: a set of interacting components considered to be a distinct entity for the purpose of study or understanding.

Examples of systems:

- TV
- iPad
- Alarm clock
- Digestive System
- Ecosystem

What is the boundary of the human body?

- the cells
- Skin

What is the boundary of a robot?

- metal

Compare the inputs and outputs of humans and robots?

- |   |         |
|---|---------|
| - input $\rightarrow$ air/oxygen                    | } Human |
| output $\rightarrow$ $\text{CO}_2$ (Carbon dioxide) |         |
| - input $\rightarrow$ electricity                   | } Robot |
| output $\rightarrow$ mechanical work                |         |

Feedback:

What are some systems that biologists would want to model?

How would you model it?

- |                      |                              |
|----------------------|------------------------------|
| - heart              | $\rightarrow$ animal models  |
| - skeleton           | $\rightarrow$ weather models |
| - lungs              | $\rightarrow$ DNA/molecular  |
| - atmospheric models |                              |

Name

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What are the advantages and disadvantages of viewing earth as a collection of individual, isolated systems?

Systems Approach

Highway System } Managing materials  
Signs  
Land use  
Construct equip.

Weather System MO } Weather equip.  
Tornadoes  
Earthquakes  
Floods

How do nonliving systems affect your environment?

- Weather system
- Phones/contact people → energy ~~source~~ source
- Recycling













































