

# D-E-E-R Models

## *from Biology*

**Question:** *What eventually happens to a population that is currently experiencing exponential growth? Explain.*

**DEFINE:** A population that is currently experiencing exponential growth, meaning unchecked growth, will eventually slow down.

**EXAMPLE:** For example, populations of houseflies have the potential for unchecked growth because though the increase starts out slowly, the flies soon reproduce rapidly as the total number of individuals that are able to reproduce increases (figure 4.2, p. 92). This is known as a J-shaped growth curve.

**EXPLAIN:** However, most populations eventually level off slow due to limiting factors such as availability of food, disease, predators, or lack of living space. As a result of one or more of these limiting factors, the population of houseflies stabilizes in what is known as an S-shaped growth curve as the environment reaches its carrying capacity.

**REFER BACK:** Therefore, it is safe to say that no population of organisms, even flies, can continue getting larger forever.

## FINISHED PARAGRAPH

*A population that is currently experiencing exponential growth, meaning unchecked growth, will eventually slow down. For example, populations of houseflies have the potential for unchecked growth because although the number of flies may be small to begin with, the flies soon reproduce rapidly as the total number of individuals that are able to reproduce increases (figure 4.2, p. 92). This is known as a J-shaped growth curve. However, most populations eventually level off slow due to limiting factors such as availability of food, disease, predators, or lack of living space. As a result of one or more of these limiting factors, such as increased number of frogs and other predators, the population of houseflies stabilizes in what is known as an S-shaped growth curve as the environment reaches its carrying capacity. Therefore, it is safe to say that no population of organisms, even flies, can continue getting larger forever.*

## from 8<sup>th</sup> grade English

**Question:** Read the following excerpt from *My Brother Sam Is Dead*. Explain what event the authors are foreshadowing through the description. Then explain why the event was important enough to be foreshadowed.

"My brother Sam was standing there wearing a uniform. Oh, my, he looked proud. He was wearing a scarlet coat with silver buttons and a white vest and black leggings halfway up to his knees."

**DEFINE:** Authors use foreshadowing to give clues as to what is going to happen next or what will be very important in the novel. Here, the authors are foreshadowing Sam's intent to join the Continental Army and his ultimate death which is alluded to in the title.

**EXAMPLE:** In the quotation, Sam shows up at the tavern proudly wearing the uniform of the Continental Soldier and ready to confront his father, who disapproves of the war.

**EXPLAIN:** Sam looks very sharp and "official" in his uniform, which establishes him as his own man who will be making his own decisions. This is important because the conflict between Sam and his father runs deep throughout the novel. In addition, the color "scarlet" suggests blood and death.

**REFER BACK:** Overall, this description is important because it warns the reader early on that Life will be unable to stop his son from going to war and dying.

### FINISHED PARAGRAPH

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