

Why Newton Matters to English Teachers

Newton's Laws: A Proof Template

Literature Piece: _____

Author: _____

Terms Defined

Object(s) moving through space (Think what is the state of normalcy before it is interrupted; these could be abstract concepts as well as concrete ones)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Mass(es) (Think what is it that the main or secondary character seeks to increase

or decrease; these could be abstract concepts as well as concrete ones)

Forces (think conflicts acting upon the object(s))

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Actions and reactions (remember a single action may have more than one reaction. Try to determine if the reaction is equal in weight to the action that started it all).

_____	_____
_____	_____
_____	_____
_____	_____

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Newton's 1st Law: An object in motion will continue in motion unless acted upon by an outside force.

Here's how I see this law working or not working in this piece of literature...

Newton's 2nd Law: The relationship between an object's mass (**m**), its acceleration (**a**) and the applied force (**F**) is **$F=m*a$** .

Here's how I see this law working or not working in this piece of literature...

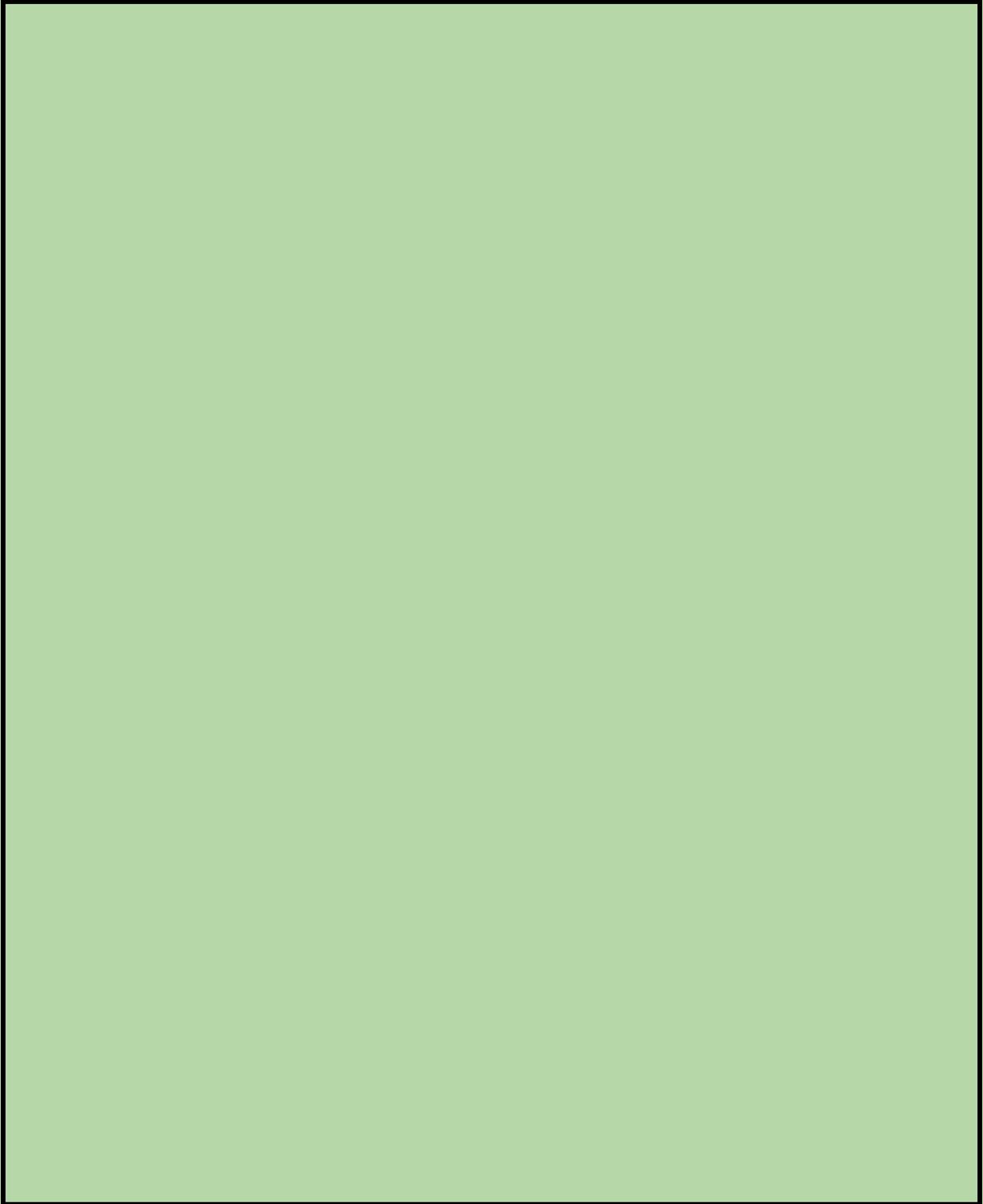
Newton's 3rd Law:

For every action there is an equal and opposite reaction.

Here's how I see this law working or not working in this piece of literature...

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Student Notes and Doodles

A large, empty rectangular box with a black border, intended for students to write their notes and doodles.

NEWTON'S THREE LAWS OF MOTION

Example with Robert Browning's "Porphyria's Lover"

I. Every object in a state of uniform motion tends to remain in that state of motion unless an external force is applied to it.

- Is the narrator in a state of motion in his relationship with the young woman? Both start the relationship in lust. All is swell for a while until the lover wants more from this than physical gratification.
- Is that motion affected by an external force? The lover's decision to try and take it to the next level represents a force acting upon the lust relationship
- What is that external force? The other force might be his failure to do anything when she arrives. He "allows her to be the aggressor. This is like putting his feet down on the bike she is pedaling to slow it down. (She doesn't seem to notice however)

II. The relationship between an object's mass m , its acceleration a , and the applied force F is $F = ma$.

Mass = size of love in relationship

Force = to be determined as positive or negative

Acceleration = time which places the relationship at some identifiable/descriptive point

- Is the force acting upon the narrator a positive or a negative force? It may be seen both ways depending upon point of view. The reader should see it as negative and as such it moves the relationship into a dangerous or toxic area.
- Can we liken the acceleration of this object (the love relationship between the two) to be the movement or stagnation of the relationship (toward marriage or toward breakup)?
- If the force is positive the force should move them toward marriage or something else (commitment). If the force is negative it should move them toward tragedy in some form.
- Is the lover stuck in time?
- The narrator must slow "a" down to as close to zero as he can possibly come. See the algebraic argument made in class. OR he must increase the force (F) he uses to change the relationship so as to increase the amount of love between the two (m)

III. For every action there is an equal and opposite reaction.

- Has any action taken place?
- "And God has not said a word."
- Has God reacted in any way to the murder?
- Is this 3rd law violated in any way?
- Porphyria is dead, but the narrator downplays her reaction to "No pain felt she, I'm quite sure she felt no pain."

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- Insanity or loss of proper reasoning power could be the reaction that goes unnoticed by the narrator.