



Level 7 - Unit 5 Lesson 1 Sir Isaac Newton



# Isaac Newton: The Genius Who Unlocked Nature's Secrets



#### Read the text and explain the words in bold.

Ilsaac Newton's early life wasn't exactly thrilling. Born in 1643, he was frail and unlikely to survive. At school, he wasn't exceptional, often distracted and absorbed in his own world. Yet, his curiosity was relentless. He spent hours in solitude, pondering the invisible forces shaping everyday life. Why does rain fall straight down? How do wheels turn so effortlessly? His mind was constantly in motion, seeking answers to questions others ignored. Newton wasn't driven by ambition, but by an insatiable thirst for understanding a trait that would set him apart forever.

- 1. Why do you think he spent so much time alone?
- 2. Do you think being curious is more important than being a good student? Why?
- 3. Why is it important to question everyday things?



## The Apple Incident



#### Read the text and explain the words in bold.

- 1. Why did the falling apple make Newton think about the moon and planets?
- 2. What does "universal gravitation" mean in simple words?



You've probably heard the famous apple story. While it didn't exactly hit him, watching an apple fall triggered a revolutionary realization. Why do things fall straight down? Newton speculated that a force, gravity, pulled objects toward Earth. But then came a bold idea: could this same force govern the moon and stars? His concept of universal gravitation shattered old beliefs. Suddenly, everything from falling apples to planetary orbits was connected by invisible threads. Newton had cracked a cosmic code that no one else had even thought to question.

## Making the Rules



#### Read the text and explain the words in bold.

Newton wasn't satisfied with vague **theories**. He wanted rules — clear, irrefutable laws that could explain motion in any situation. Isolated during a plague outbreak, he formulated his three laws of motion, which became the cornerstone of physics. These laws dictated how things move, stop, and interact — from arrows in flight to crashing cars. Without them, modern life would be chaotic. Imagine soccer without friction or rockets ignoring inertia. Newton's elegant laws brought clarity to chaos and proved that even the universe follows predictable patterns.

#### **Newton's laws of motion in physics**

LAW #1

A body at rest will remain at rest, and a body in motion will remain in motion unless it is acted upon by an external force.

LAW #2

The force acting on an object is equal to the mass of that object times its acceleration, F = ma.

**LAW #3** 

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

- 1. Why did Newton want to make laws about how things move?
- 2. Why do you think isolation during the plague useful for Newton's work?

### Idioms



#### Match the idioms to their meanings.

- Think outside the box
- A lightbulb went off
- Go against the grain
- Ahead of his time
- Bend the rules
- Lost in thought

- 1. To have a sudden idea or realization.
- 2. To be deeply thinking or daydreaming.
- To do something that is not the usual way or is unexpected.
- 4. To do something before others are ready to accept or understand it.
- 5. To not strictly follow the rules.
- 6. To think in a new and creative way.

## Vocabulary



#### Match the vocabulary words to their definitions.

- insatiable
- ponder
- irrefutable
- dissect
- eccentric
- startling

- 1. Impossible to deny or prove wrong
- 2. Very surprising or shocking
- 3. Strange or unusual in an interesting way
- 4. To think carefully about something for a long time
- 5. So strong that it can't be satisfied
- 6. To carefully cut apart or study something to understand it better

### Dialogue 1: Deep Thoughts



#### Read the dialogue and answer the question.

Lila: So Newton basically stared at an apple and invented gravity?

**Noah**: Yeah. Meanwhile, I stare at apples and wonder if I should eat them or make pie.

Lila: He asked, "Why does it fall?" I ask, "Why does homework exist?"

Noah: Fair. I guess he saw the universe. I see deadlines.

Lila: Same. I need Newton-level focus... but for math class.

Noah: Or maybe just enough to avoid falling asleep in history.

Question: What everyday thing makes you stop and wonder "why"?

### What If There Were Less Gravity?

#### Read the text and answer the questions.

Imagine if Earth's gravity was only half as strong. Walking would feel like bouncing. You could jump much higher, and carrying heavy objects would be easy. But there would also be problems. Without strong gravity, the atmosphere could slowly drift away, and muscles and bones would weaken over time. Life would definitely be strange. Scientists still don't fully understand why gravity exists — only how it works. Will we ever unlock all its secrets? That remains one of science's biggest mysteries.



- 1. What fun or useful things could you do if gravity were much weaker?
- 2.Do you think humans will ever fully understand what gravity really is?
  Why or why not?

# See you next time!



