

Name \_\_\_\_\_

## Defying Gravity: The Quest to Control Gravity

### Short Answer Key

1. Anti-gravity is a hypothetical technology or concept that would allow objects to repel or negate the effects of gravity. While it has been a popular theme in science fiction, no practical anti-gravity technology has been developed to date. It remains a speculative idea.
2. According to Einstein's theory of general relativity, gravity is the result of massive objects bending the fabric of spacetime around them. This bending of spacetime causes other objects to follow curved paths in this warped spacetime, leading to the gravitational attraction we observe.
3. Creating a gravitational shield or cloak would be an immense technological challenge. It would require advanced materials and technologies to redirect gravitational forces around an object, effectively making it weightless within the shielded area. Currently, such concepts remain speculative and face significant scientific and engineering hurdles.

