

S T U D E N T H A N D O U T

Student Name: _____

Student Discovery Sheet

- 1 Write several phrases that describe the physical appearance of the rattleback.
- 2 Describe the response of the rattleback to your push and release of one end.
- 3 Describe what happened when you tried to spin the rattleback in the direction it didn't spin in question 2.
- 4 Using your new vocabulary, explain which part of its physical appearance causes this strange response/movement. (Be ready to share with the class.)
- 5 Newton's law of motion # _____ states:

The rattleback demonstrates this law by...
- 6 What current technology might use the advantage of form to create a desired response that would make a task easier or possible?
(Would the rattleback shape be good for a canoe? A pair of rollerskates? Why, why not? Just to get you started.)



S T U D E N T H A N D O U T

Vocabulary List

- | | |
|---------------------|---------------------------------|
| 1 Center of gravity | 6 Angular momentum |
| 2 Elliptical shape | 7 Physics |
| 3 Force | 8 Conservation of Energy |
| 4 Mass | 9 Newton's three laws of motion |
| 5 Acceleration | . |
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