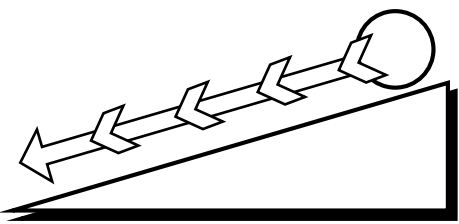




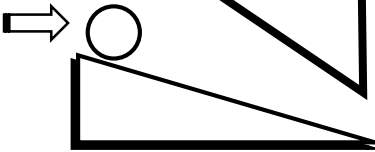
INERTIA



NEWTON'S 1ST LAW OF

MOTION

INERTIA IS THE _____
OF _____ IN MOTION, INCLUDING CHANGES TO
_____, _____ OR _____.



AN _____ IN MOTION
_____ IN MOTION

WITH THE SAME _____
AND IN THE SAME _____

UNLESS ACTED UPON BY AN

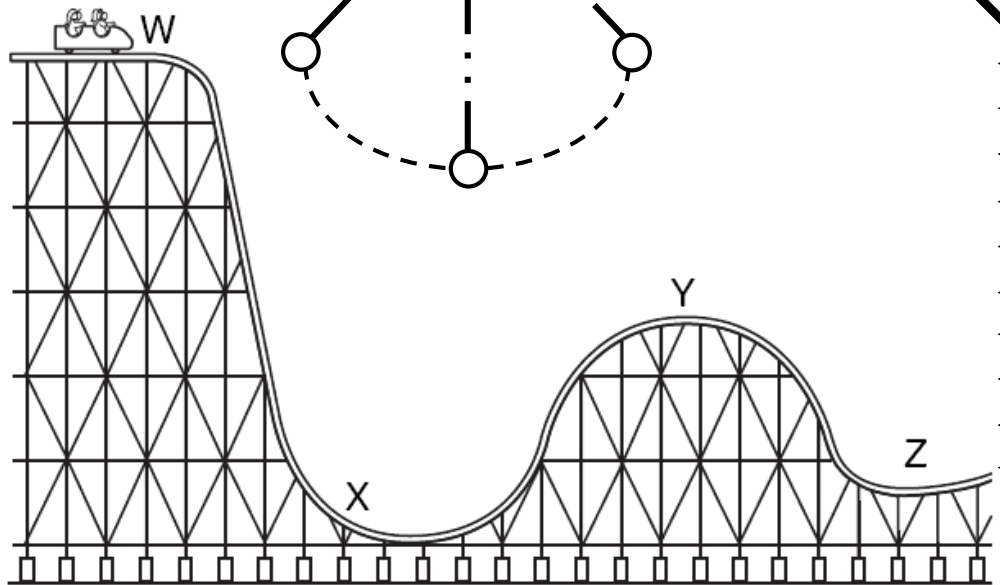
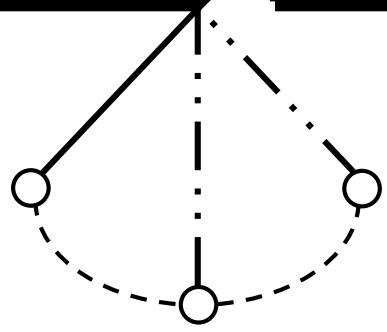
THE _____ CAUSES THE BALL
TO ROLL _____ THE RAMP.



_____ & _____ ACTS
THE FORCE ON THE BALL.



ON A _____ SURFACE, THE
BALL WILL NEVER STOP _____.



Explain WHAT WOULD HAPPEN TO
motion IF friction DID NOT EXIST.

RESEARCH "Perpetual Motion Machine"

SPIN THE GEARS

Can you find the gears which won't turn?
Decide whether the following are true or false.

Inertia is when an object resists a change in motion. This resistance often occurs in the opposite direction of motion.



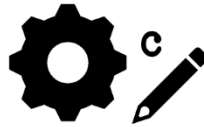
True or False? Explain.

True or False? Explain.



If an object is already in motion, it is likely that the motion can change without any input from outside forces.

Friction opposes movement of objects on surfaces. Smooth surfaces often slow objects down.



True or False? Explain.

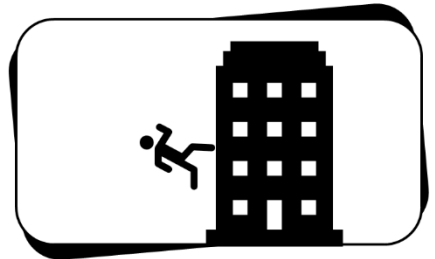
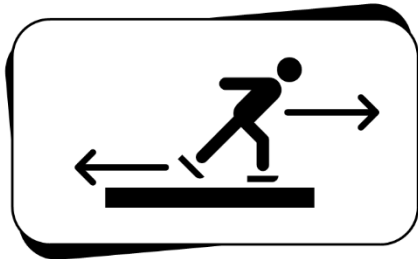
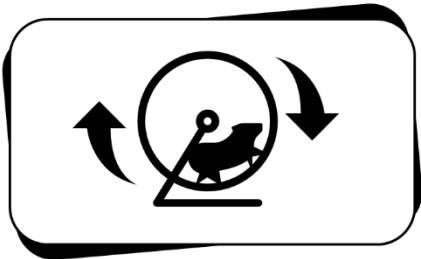
True or False? Explain.



The force of **gravity** pulls objects towards the centre of the Earth. Everyone knows what goes up, must come down.

KNOW BY SIGHT

Can you identify anomalies?
Cross out the following non-examples or incorrect ideas.








✓ because... _____
X _____





✓ because... _____
X _____

✓ because... _____
X _____

PUZZLE IT OUT

Can you match each puzzle piece?
Connect the terms to the definitions. Watch out! One is missing!

-  Inertia A
-  Friction B
-  Force C
-  1st Law D
-  Gravity E

- 1 A push or pull acted upon an object. 
- 2 _____ 
- 3 Surface resistance to relative motion. 
- 4 A force of attraction between two masses. 
- 5 The resistance of change in motion. 