

# Newton's 1<sup>st</sup> Law

Balanced v. Unbalanced Forces

For each slide:

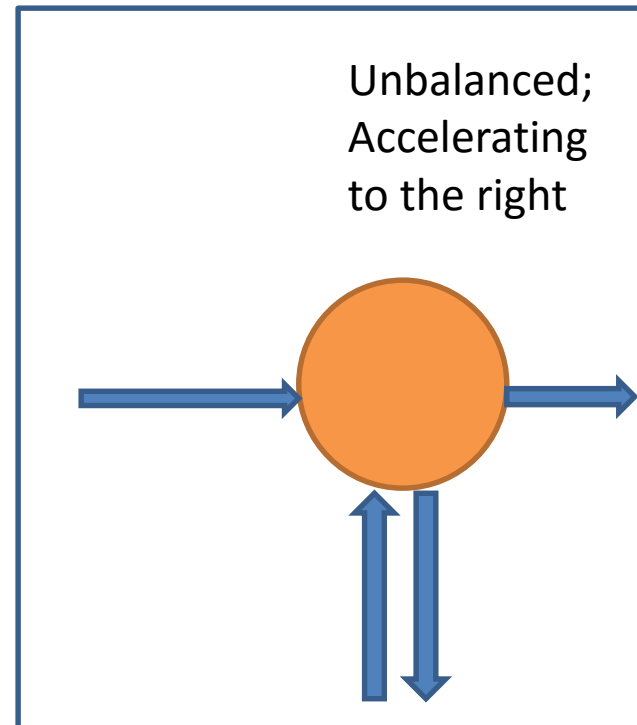
Use the picture and provided information to:

(a) determine if the forces acting on the object are balanced or unbalanced

(b) Identify the state of motion (include direction): static equilibrium, dynamic equilibrium, or accelerating

(c) identify all of the forces acting on the object.

(d) draw a free-body diagram: this shows all the forces acting on a single object.



The cat is  
doing  
what cats  
do best.





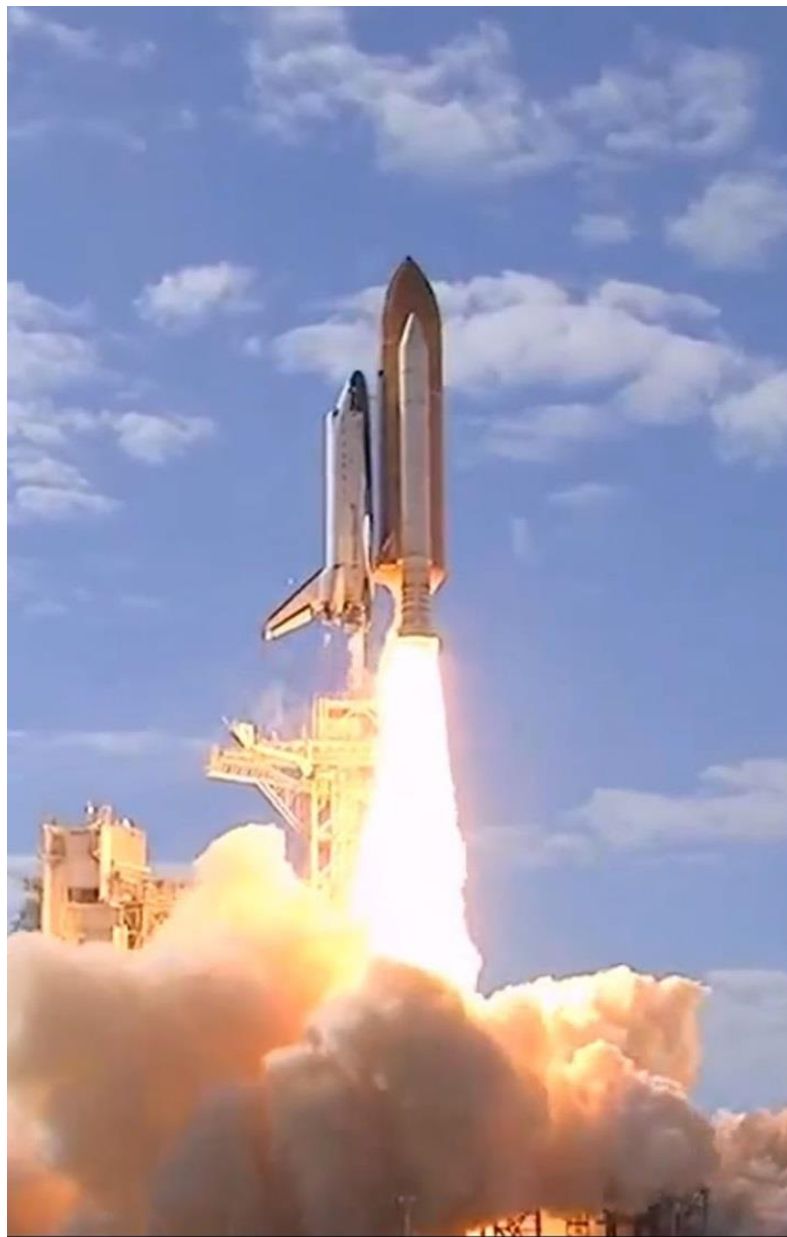
The child is standing on a moving sidewalk which is moving with a constant velocity.



- The wagon with 9 puppies is moving to the right with a constant velocity.

The motorcycle  
is moving with a  
constant speed.





Blast off!