Name:	 Date:	Period:

How do forces affect the motion of an object? How do Newton's Laws of Motion allow us to make predictions and draw conclusions dealing with the motion of an object?

An force is required to change an object's velocity.
• The acceleration of an object depends on the acting on the object. $\Sigma F =$
$\Sigma F =$
ΣF = Force of hand accelerates the brick
Force and Acceleration arerelated. Twice as much force produces twice as
accelerates the brick much acceleration
 The acceloration Twice as much force produces twice as much acceleration Mass and Twice as much force depends on theof the
Force of hand accelerates the brick The same force 3 bricks, 1/3 as much acceleration 1/2 as much

• F	r = ma	a							
		•	• F =	=			,	measured	in
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• A	A Nev	wton i							
	0	$\mathbf{F} = \mathbf{i}$	ma						
	0								
	0	A	Newton	is	the	force	required	to accel	erate
					at a r	ate of			
	0	On	Earth,	1	kg	=			=
								_	
		• A Nev 0 0	• A Newton i 0 F = 0 0 A	• A Newton is the stand • A Newton is the stand • A Newton • A Newton • O A Newton • O On Earth,	 F = m = a = A Newton is the standard unit F = ma A Newton is O A Newton is O Dn Earth, 1 	■ F = ■ m = ■ a = O F = ma O O A Newton is the at a r	 F =	 F =	 F =, measured m =, measured a =, measured A Newton is the standard unit of o F = ma o o A Newton is the force required to accelent at a rate of o On Earth, 1 kg =