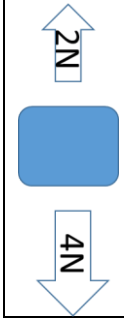
Year 7 Forces fact sheet

Types of force	
1. Forces are …. and …..	**Forces are pushes and pulls**
2. What are the units for force?	**N (Newton)**
3. Name the force which pulls objects towards the centre of the Earth	**Gravity**
4. Name the force which objects have because of gravity	Weight
5. Name the force which pushes a car forwards	**Driving force**
6. Name the force that occurs when 2 objects are rubbed together	**Friction**
7. Name the force which slows down an object when it is travelling through air	**Air resistance**
Balanced and unbalanced forces	
1. What will happen to the stationary box? 	**It will stay where it is**
2. What will happen to the stationary box? 	**It will move to the left**
3. What will happen to the stationary box? 	**It will move to the right**
4. What will happen to the stationary box? 	**It will move down**

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5. What happens to a stationary object when the forces are balanced?	**It stays still**
6. What happens to a stationary object when the forces are unbalanced?	**It starts to move or change shape**
7. What happens to a moving object when the forces are balanced?	**It carries on moving at the same speed and in the same direction**
8. What happens to a moving object when the forces are unbalanced?	**It changes speed, stops moving or changes direction**
9. What do we call the overall force acting on an object?	Resultant force
Friction	
1. When would objects experience friction?	**When they are rubbed together**
2. Describe a situation where friction is useful	• **Walking (so you don't slip over)** • **When a car stops**
3. Describe a situation where friction is not useful	• **Car tyres getting worn** • **Ice skating when you want to go fast**
Air resistance	
1. When would objects experience air resistance?	• **When they are moving through the air**
2. Describe a situation where air resistance is useful	**When you want to slow down, e.g. a parachute**
3. Describe a situation where air resistance is not useful	**When you don't want to slow down, e.g. driving, cycling, or fast sport**
Speed	
1. Speed = _____ ÷ _____	**Speed = distance ÷ time**
2. What is the standard unit for speed?	m/s ('meters per second')
3. The faster your speed the longer/ shorter your journey time	**Shorter**
4. An object travels 10m in 5 seconds. Calculate its speed	**Speed = distance ÷ time** **= 10 ÷ 5** **= 2 m/s**
5. An object travels 30m in 10 seconds. Calcualte its speed	**Speed = distance ÷ time** **= 30 ÷ 10** **= 3 m/s**
6. An object travels 27m in 3 seconds. Calcualte its speed	**Speed = distance ÷ time** **= 27 ÷ 3** **= 9 m/s**

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