

# FORCE AND INTERACTIONS



A **force** is a push or pull, which can cause an object to be in motion. **Gravity** is a force, which pulls objects toward Earth.



Pushes and pulls can have different strengths and directions. An object at rest typically has multiple forces acting on it, but they add to give zero net force on the object. Forces that do not sum to zero can cause changes in the object's speed or direction of motion.

**Motion** is a change in position. When objects touch or collide, they push on one another and can change motion. The mass of an object affects the object's motion. An object with more mass requires a greater force to put the object in motion.



**Speed** is how far an object moves over a specific period of time. Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. An object moving at a greater speed changes position faster than an object moving at a slower speed.



**Friction** is the resistance between two objects. Friction slows down an object

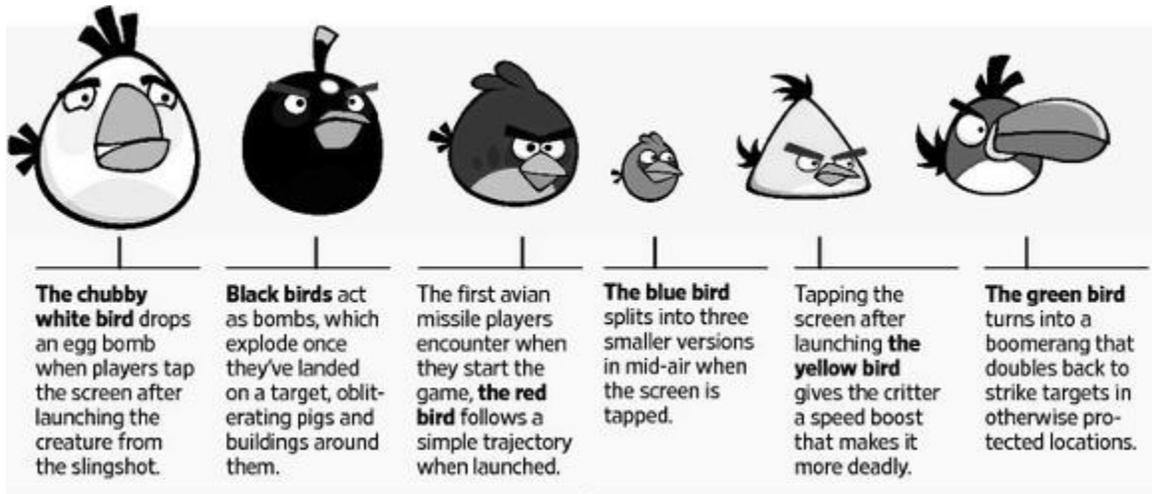
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## Activity

Using the science words below, describe each bird.

FORCE   MOTION   SPEED   FRICTION   GRAVITY

1. White Bird –
2. Black Bird –
3. Red Bird –
4. Blue Bird –
5. Yellow Bird –
6. Green Bird –



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## Quiz

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Write the word(s) from the box that completes each sentence.

<b>FORCE   MOTION   SPEED   FRICTION   GRAVITY</b>
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1. A \_\_\_\_\_ is a push or pull, which can cause an object to be in motion.
2. \_\_\_\_\_ is a force, which pulls objects toward Earth.
3. \_\_\_\_\_ is the resistance between two objects.
4. \_\_\_\_\_ is a change in position.
5. \_\_\_\_\_ is how far an object moves over a specific period of time.