

Name: _____

Force of a Golf Swing

GRADES 3-5

Experimental Guide: Balanced and Unbalanced Forces

Question: How can you increase the distance a golf ball travels?

Hypothesis: If I _____,
then the distance of the golf ball will increase because

Variables:

Independent (check one):

Foot position

Follow-through

Type of club

Height of the tee

Angle of swing

Speed of the swing

Clubhead speed

Dependent: Distance of the ball.

Control: What other variables will you keep the same?

Experiment Design: Briefly summarize how you will collect your data.

Name: _____

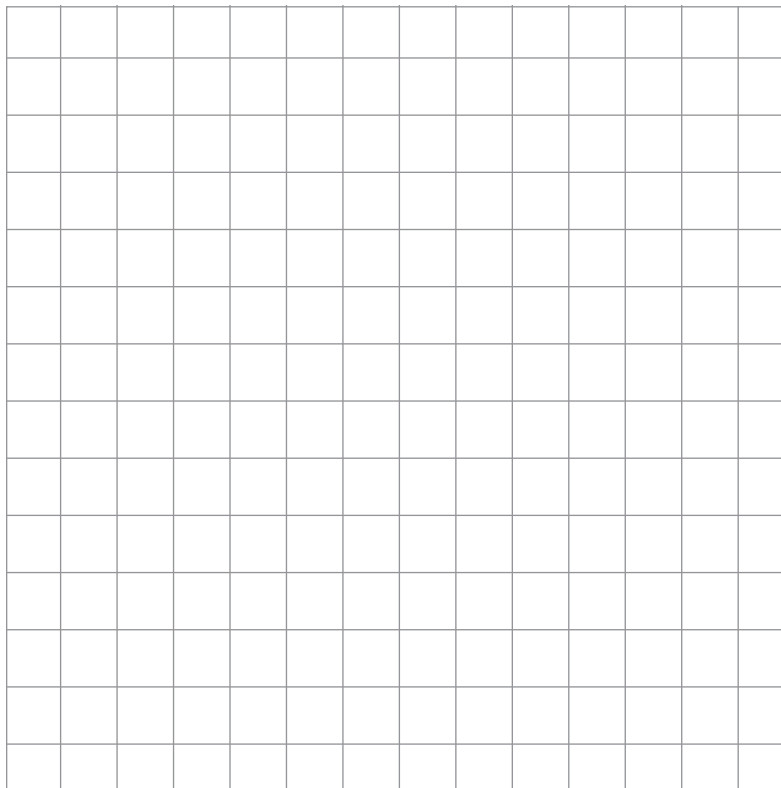
Force of a Golf Swing

GRADES 3-5

Data: Record the distance in feet for 5 trials.

	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
Control (no changes)					
Independent variable					

Analyze: Find the average distance for both the controlled and changed swing and graph your average data comparing the two distances.



Name: _____

Force of a Golf Swing

GRADES 3-5

Report: Answer the following questions.

Did your data support your hypothesis?

How did you change (independent variable) the distance of the ball?

How do you know your change (independent variable) influenced the distance of the ball?

How did your change (independent variable) create an unbalanced force on the ball?

Name: _____

Force of a Golf Swing

GRADES 3-5

Experimental Guide: Energy and Speed

Question: How can you increase the energy of a golf ball?

Hypothesis: If I _____
then the distance of the golf ball will increase because _____

Variables:

Independent (check one):

Foot position
 Follow-through
 Type of club
 Height of the tee
 Angle of swing
 Speed of the swing
 Clubhead speed

Dependent: Speed of the ball.

Control: What other variables will you keep the same?

Experiment Design: Briefly summarize how you will collect your data.

Name: _____

Force of a Golf Swing

GRADES 3-5

Data: Record the distance in feet for 2 trials.

	Trial 1 Distance	Trial 1 Time	Trial 1 Speed (D/T)	Trial 2 Distance	Trial 2 Time	Trial 2 Speed (D/T)	AVG
Control (no changes)							
Independent variable							

Analyze: Find the average distance for both the controlled and changed swing and graph your average data comparing the two speeds.



Name: _____

Force of a Golf Swing

GRADES 3-5

Report: Answer the following questions.

Did your data support your hypothesis?

How did you change (independent variable) the energy of the ball?

How do you know your change (independent variable) influenced the energy of the ball?

Describe the collision between the ball and the club. How did the collision change in your experiment?