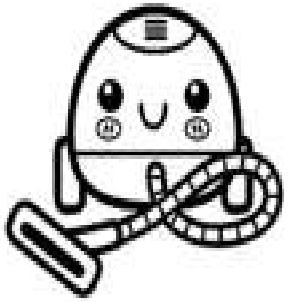
SUPER SUCKER

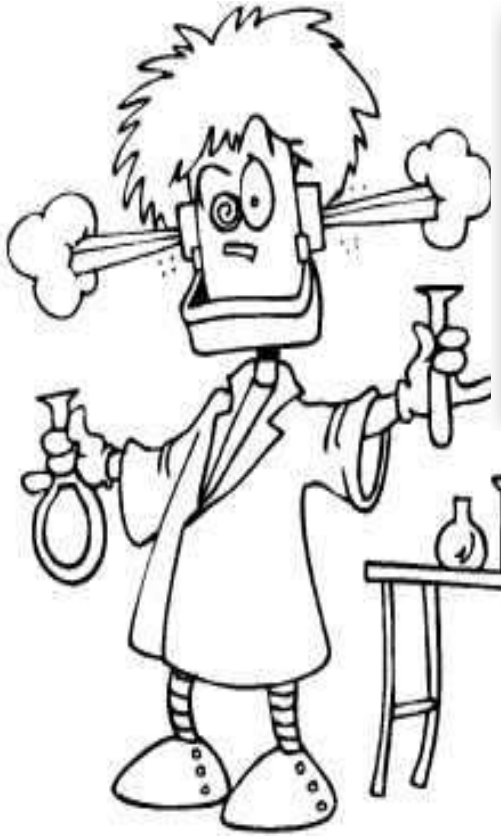
G I T E W F F T O W F C S J N
J A A A T M O S P H E R I C E
N O I T C U S M E C W V J W G
P K E W M L Q C K P P J X Y Y
A B F P Y U A R K O R J K N X
P G X U R P C P Z X E A S M O
U H A F S E U C U G S O I V P
J W Y J V G S X A R E Q X R A
I W W H F K W S C V R Q J W L
O A S H X N Y H U A V A Q M X
Z X J F G U A Y J R E S E A L
N C D U Q M X I P E E M G Z U
P E K E B A L F C H A U S Q O
L E M E R U M Q D Q M K W P G
I T R L R O U H G K R N F B L

AIR
ATMOSPHERIC
CHAMBER
OXYGEN
PRESERVE
PRESSURE
SEAL
SPACE
SUCTION
VACCUM



A vacuum works by removing all the air. The atmospheric pressure than pushes in on the person inside of the bag. Created by: Rubi, Luz, Maria

Mineola Science



Extravaganza Activity Book

BB-8

d j a y v i j g a s j e c t a
b c i t e n g a m x c t h u j
x u j i r x o g w n i g y d s
h r c v t n y p a c i s p u b
a a e a i h k l a e w j y j d
t g i r c v a h w x h y i c a
l y y g a b x r r r g o h f s
e a s r l m e c h a n i s m m
m o n q o t o q j u o m i o q
y o s r n s y z b t r x v f l
c e y u e c c b s l r e h n p
n e o v a t m o s y m u f s t
f c m f k a x f p e g d l e t
s p h e r e m e n e b q u p m
m z w l j f y t f j p t a n t

axis
balance
counterweight
external
gravity
gyroscope
magnetic
mechanism
movement
sphere
vertical

The system uses wheels to make the sphere roll in any direction. Each of those wheels is connected to a motor. The robot uses sensors to determine its positon. The BB-8 can be moved using a remote control.

Created by: Jacqueline, Aracely

Fog Gods!

P E R D U U M A L H A Z U O Y
E R B Q W J Z M M W I D P E M
N Y E O W M Q O M U R L V D P
S A L S S P M V E V H M C Z M
Z S G F S E E A C W G O R B S
C N P V N U M Y R H M V F U V
F A S T Q Q R A O F I E E O J
H B U J C S G E F W T M L F G
Q M J S A T R W Y M X E D O Y
V P T T G U Y G U A H N G B R
C V N B F N D B H A L T F C C
Q K A W B G I N R F J Q A E Y
Z B X H Q M B R V K J W B R P
K G X E T R O V A E Z S I H V
Z E Z E V J S I P T S C A I U

Fog
Rings
Force
Pressure
Air
Momentum
Vortex
Movement
Slow Air
Fast Air

A vortex ring works by creating pressure. The pressure forces the air out in the shape of a ring because of equal atmospheric pressure.

Created by: Preston, Josh, Curtis

Popcorn Physics

B F I B N H Y K S S G I I H S
M S D I C X Q E E T R G U T A
Y O Y T K G M R V H J V A X U
P T G B G V X N A R B R S P C
M O I S T U R E W T C D X H L
W X P V G P D L O H Y M I I B
C I A C N O C I R E T O O S A
T A E H O P N L C Q V T R R E
J Q Q B O R E Q I J Y I L R R
W X N D S V N L M K C I U A E
V G T J Z W D V Z T E S H K S
P O G Z J T O C M L S O X N Z
G J D N W Y D P P E Y X C S Y
D E P K O P P V R E K L T P T

Pop

Popcorn

Oil

Heat

Pressure

Kernel

Salt

Starch

Microwaves

Moisture

Part of what makes popcorn pop is the water trapped inside the kernel. When the kernel gets hot enough, the water turns to steam, and the shell of the kernel POPS!

Created by Tyler and Pedrito

Radio Control

E Y G P I G E R R T L K R Y B
C O M M U N I C A T I O N S R
T N J H S R Y B E D D W K R O
D R W R A U N U O W A R O E A
D V A Q S K Q M W V P R R V D
S K M N P E P U E E F W W I C
Q Z G D S W V L H K J D G E A
I C F I S M E A J H E S W C S
F M L D I N I J W R E U H E T
E B N U G M T T A D Y J S R I
L R Y T S K G R T G N H S T N
W I H D D Z F D J E Q U E W G
N S E I C N E U Q E R F O F K
I U R N I Z K Q P D V S Z R B
P F N L L C S K Y W A V E S G

Wavelengths

Infrared

Transmitters

Frequencies

Communication

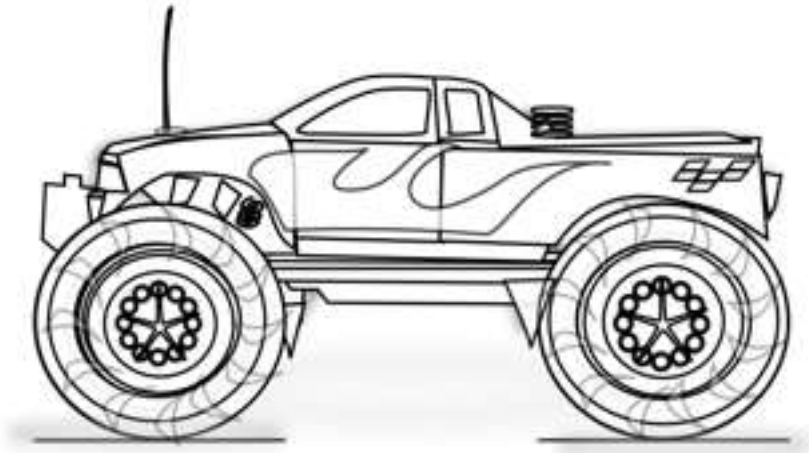
Broadcasting

Radar

Receivers

Groundwaves

Skywaves



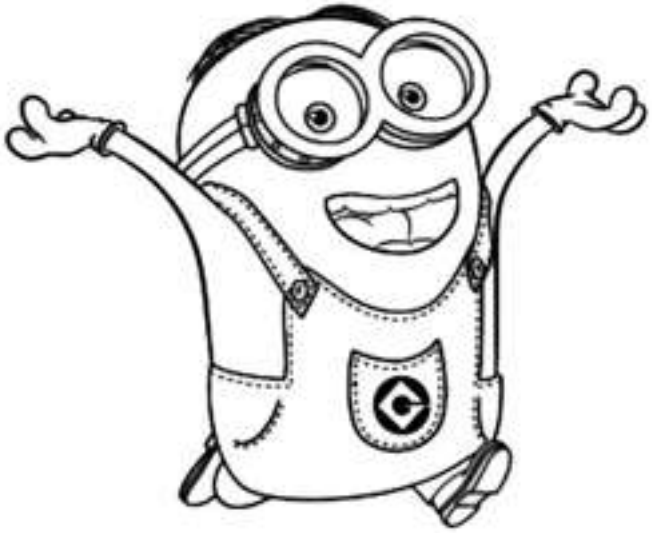
The remote (transmitter) sends radio waves to the receiver inside the RC car. An antenna inside the toy receives signals from the transmitter and turns on the motors.

Created by Tanner and Wesley

Refraction Goggles

Y	Z	Z	I	D	E	D	A	P	W	V	N	C	S	E
D	I	V	L	N	A	X	M	O	N	O	B	H	G	T
N	K	I	E	I	V	W	D	T	I	J	Y	A	C	L
Q	L	R	S	Y	H	L	J	T	R	V	S	N	Z	M
L	G	N	Y	J	K	W	A	L	V	K	Z	G	C	A
Y	E	S	W	J	W	V	L	X	L	D	L	E	O	R
L	A	H	X	J	R	Y	P	T	R	W	T	X	T	M
B	P	P	H	E	G	L	A	S	S	E	S	A	N	L
G	E	B	S	W	F	S	S	L	I	S	B	X	K	E
P	D	N	G	B	C	L	Y	E	W	A	V	E	B	V
G	O	U	D	J	U	B	S	P	U	H	A	X	V	Q
C	K	K	N	I	K	S	R	H	O	P	M	Q	Z	P
G	H	D	Y	F	N	A	O	B	R	O	E	K	S	I
N	V	K	N	M	U	G	L	C	Z	U	L	H	M	J
C	C	X	P	E	S	V	T	F	N	X	O	D	W	S

Glasses
Lens
Dizzy
Loopy
Bending
Change
Wave
Phase
Energy
Conservation



Refraction occurs because light bends. A lens is a piece of transparent material. It is usually made of glass and has at least one curved surface. Created by Aspen, Adrianna, and Aubrey

Virtual Reality

L	I	G	H	T	D	L	M	M	E	M	V	D	S	E
H	R	Q	F	Z	E	E	I	X	D	I	N	I	P	H
O	N	F	R	G	H	C	F	X	R	A	B	S	A	O
G	I	F	D	J	U	O	H	T	O	G	X	T	C	Z
D	N	G	Z	U	V	B	U	N	H	F	K	A	E	F
M	L	I	K	G	F	A	Y	A	O	I	S	N	R	L
L	K	P	D	X	L	V	F	H	O	L	S	C	F	Z
B	D	M	L	A	S	U	O	O	R	B	O	E	A	P
J	W	F	H	E	H	T	M	G	T	X	W	G	D	Q
Z	M	B	S	U	Y	S	L	M	J	T	L	B	Y	O
U	Z	N	W	I	D	E	A	Y	J	J	O	V	A	E
K	E	T	D	H	V	K	U	Q	R	G	P	U	A	Z
S	M	D	I	E	S	J	S	B	V	E	S	F	K	T
H	S	G	J	D	H	P	I	L	Y	G	S	G	M	X
S	W	O	D	A	H	S	V	E	Z	D	S	S	R	N

Virtual
Technology
Shadows
Light
Depth
Distance
Space
Visual
Shading
Senses

Virtual is the fake world that appears real because of the use of technology. Reality is the actual world where things actually exist. Virtual reality goggles work by showing two images that make it look 3D.

Created by Omar and Rogelio

Stomp Rockets

E D Q X E J D O Z E
N Y E U F T Z Z F R
I O J L H L C N T U
J N I G L K Y E G S
N O I T C E R I D S
T E K C O R P S E E
W H B A C M H O C R
L A U N C H Y X R P
I I S P E E D X O P
Y L J W D Y B R F L

DIRECTION
FLY
FORCE
LAUNCH
MOTION
PRESSURE
PROPELLED
ROCKET
SPEED
WEIGHT

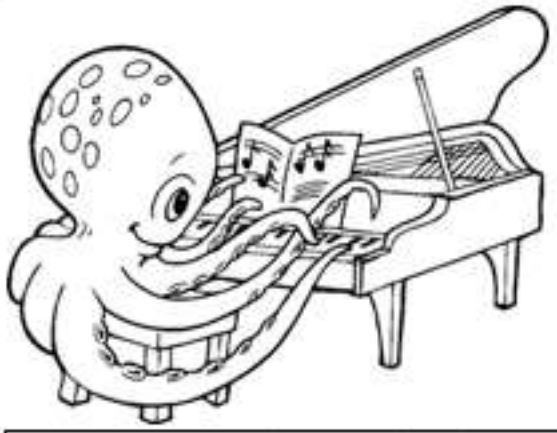
When compressed air escapes it pushes downward making the rocket fly up. This is the same way real rockets work.

Created by Bryce, Tanner, River

Sand Jump

Z B U N L T V C P E Q E P C L
F B R A F B V R H H M K F E D
T R S H C D E Z K G L U G I M
W C E C U S Z J E X W J L R L
J M L Q S W B U S S Q J J O R
A F Q U U V I B R A T I O N V
M X R D I E N W V U N N E M M
P E W N E L N H W F X D I J J
L P U U L Z C C W A V E S G P
I C H O X T D H Y H L G B Y S
T Y P S I W T T O B G F T D I
U K C P L P D Q W J X B L H P
D G P W W F J V N F B A G D B
E F N D V R Y P J I K G S X F
K S O O Y G R E N E W G N E P

Sound
Vibration
Sand
Energy
Pitch
Volume
Pressure
Waves
Frequency
Amplitude



Frequency are standing waves that determine their size by the sound waves.

The sound from the speakers vibrates the sand into making shapes and designs.

Made by: Katie and Hailey

Acoustic Sound

A	Z	X	Y	O	Y	T	K	F	X	J	I	M	N	B
Q	G	T	N	C	Y	U	M	V	P	I	X	U	A	L
S	K	Y	V	I	K	N	I	S	M	I	F	S	E	D
E	U	T	Q	G	O	B	A	C	N	R	T	I	A	Q
L	W	J	Z	P	R	T	U	I	X	T	P	C	J	S
U	A	M	Z	A	C	I	T	S	U	O	C	A	H	O
J	N	I	T	W	H	L	X	Y	G	R	X	X	E	F
P	F	I	R	L	C	H	M	H	W	D	I	E	E	W
H	O	N	R	E	F	J	W	P	N	A	U	R	A	L
N	L	N	W	Y	T	A	G	U	C	P	N	N	L	E
H	D	G	G	T	V	A	O	U	G	L	S	K	V	M
N	M	T	W	E	I	S	M	M	I	K	D	D	S	M
I	G	M	G	G	F	L	Y	N	R	U	Z	O	K	H
R	W	J	B	U	Y	G	D	S	Z	Y	U	N	I	Q
T	X	R	R	E	N	O	T	U	H	Z	H	P	Q	H

ACOUSTIC
AURAL
MATERIAL
MUSIC
PHYSICS
PITCH
SOUND
TONE
VIBRATION
WAVE

A sound wave is produced by a vibrating object. As a guitar string vibrates, it causes surrounding air molecules to shake and is amplified by the body of the guitar creating the sound you hear.

Created by Kaitlyn, Lena, and Adam

The Bed of Nails

E	J	V	L	T	U	M	U	T	X	Z	D	R	I	E
V	R	M	A	E	P	N	J	R	A	E	Z	O	Z	Q
I	U	U	S	V	Z	R	S	O	D	E	H	C	R	U
W	Q	Q	T	K	V	P	N	P	W	M	R	W	H	A
V	S	N	T	C	Z	Y	D	P	Q	G	Y	A	S	L
H	V	Y	A	F	N	L	R	U	V	T	Q	J	V	R
E	O	Y	N	I	M	U	P	S	I	J	B	V	T	G
N	C	Y	Y	U	L	M	P	S	F	V	P	I	U	F
W	E	I	G	H	T	S	N	O	T	C	Y	S	T	A
Q	O	V	E	F	V	E	R	V	Y	C	W	W	P	Z
U	P	C	R	N	D	C	L	Z	A	T	E	T	D	N
E	R	U	S	S	E	R	P	T	H	T	W	K	U	D
K	T	R	E	X	E	Y	P	T	Y	K	L	T	L	T
F	F	W	B	M	Z	E	V	P	N	D	O	Z	E	A
L	P	Q	E	T	S	O	U	V	Y	R	E	W	O	U

Nails

Pressure

Equal

Weight

Puncture

Force

Support

Area

Exert

The Bed of Nails exhibits equal pressure throughout the body. Due to the amount of nails, one single nail cannot puncture the skin because of the distribution of force. DO NOT TRY THIS AT HOME!

Created by Emily, Alyssa, and Tish

N Y A O O P U X P E I Z Z T F
N Z C G I A V A V S B P B W T
C E V M U O F I K P V F A I R
D C L K L S T R H H R F O X V
E I J U H C J N C E T E I B O
F V M J E W I E N R P Z T Y D
C E A L N P X B F I E J I A R
Z M F P O M O L E C U L E S W
L E O L O T U B R A G Z T B Y
R P Y M U R E C O L K E Y S B
A H L Y N S A T H G I L T N N
S Z I V Z V U T G B Q R E B U
F Y U O B A D F E D W P D W O
B J Q H Z K L J P G X F R P L
V C L T O E T M S V N F Z H Z

Bubble

molecules
light
water
air
evaporate
reflective
spherical
soap
volume
film

A bubble is a thin film of soapy water. Most of the bubbles you see are filled with air. The film that makes the bubble has three layers. A thin layer of water is sandwiched between two layers of soap molecules. Molecules are group of atoms bonded together. Created by Omar, Alex

Fairy Floss Word Search

U V Q K S G C E E F P T F J G
U N G J R J M P M W Q U P G N
D J U G F T U A X G S E M M I
S E T A R G E T N I S I D F Y
N I I Z H H C I O Z K D H O F
U E E F F Y T N D B K L S S E
Q V G B I R D Q Y E M E U H U
N L P Y E D D R Q I L I C Z Q
P V W V X S I Q O E R A R S I
F X N R H O F L C G X M O H L
C O N F E C T I O N E A S L W
C N O B R A C J O S X N E L V
S H B W B W S B L G E K V U Q
G N H O O R T N O I J R G X V
K X Z S M R A A X Q M O K W D

CARBON
CONFECTION
CONVERTING
DISINTEGRATES
FUSION
HYDROGEN
LIQUEFYING
OXYGEN
RESOLIDIFIED
SUCROSE

Cotton candy consist of nothing but sugar, or sucrose, with a little coloring and flavoring. Sucrose, in turn, is comprised of a handful of carbon, oxygen, and hydrogen atoms. When you pour sugar into the center of a cotton candy machine, the coils inside heat the sugar to its melting point and break the bonds of the constituent molecules. The hydrogen and oxygen atoms rearrange to form water molecules and promptly evaporate, leaving only carbon behind. The carbon burns, and the sugar begins to caramelize.

Created by: Jerrie, Makayla

Light Show

Diffraction

L F O R P H T N R E T T A P M
P X C A L T T H C W D Q W T S
E S E I H G H G I R X P H W I
V R S N Y S Y G N C L J A K R
W V M B S L F N I E K H O D P
O E P O M L B O C L L N F O O
V V N W P E H I G F D E E I L
X E T O N S S T Q X T I V S U
S X O D M O O A B Q N A F A S
N O I T U B I R T S I D E R W
V N E Q Z A G A N Z G H O T P
G M A T M O S P H E R E J K P
Z V L N I Q U E K D F F V B Y
T J A J S B Q S A Q Z W E Q Q
D D B W G L E P F R K J Q G N

ATMOSPHERE
BENDING
LIGHT
PATTERN
PRISM
RAINBOW
REDISTRIBUTION
SEPARATION
THICKNESS
WAVELENGTH

Diffraction works by bending light. The light is separated into the colors of the rainbow: red, orange, yellow, green, blue, and purple.

Created by Elaina, Luis

Elektronik Supersonik

A J L O N S P W N T G A V O V
N S B I H O J V K H O Y L O Y
O P H N O R I P Y D P U S A J
I V E L O C I T Y P I C T V E
T S G R F M L V A V N W C K N
C I T E N G A M O R T C E L E
U T P Y Y F H B Y S B P L B R
D K W B A H Z C I N P I A M G
N E K F L D N N E V A W V U Y
I D X D A E E X X O J S V S G
H S P K U R S A G Y T F W U S
I A H Q K N A O H R J O A R X
I R E B H D X D S K R W J B D
H R Y E L T P F A P P P D L M
F T F Q V B L V A Y K Y C D Q

Vibration
Sine
Wave
Velocity
Electromagnetic
Induction
Coil
Energy
Faraday
Frequency

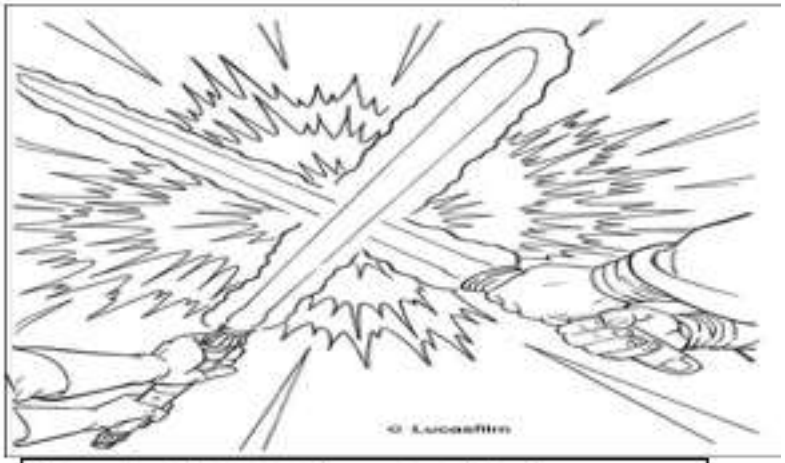
Electronic Instruments use electromagnetic waves to pick up sounds that gets projected through an amplifier. This is best exemplified through the Theremin, an instrument that uses antennas that pick up the waves around it to create sin waves.

Created by Thomas, Spencer, and Jackson.

GALAXY WARS

E U Q Y M P L I S R V S T S D
W L B V Y U C I A J C Y B W W
X C E I Z F T D G I O N E D M
D O Z C Q E I N T H M O A L S
U B W I T A C P A O T N M F C
X Y R L T R O U U U U L E T I
P I V I C Y O R F X Q I R C S
I Y O A D F K M M G K N I K Y
P N L A S E R J A X N E Z G H
G V L Y G V P G Z G U A Q P P
X N H N T D E Z K H N R K J E
N L F C X D U T Z Z G E G U X
Y J I U R Z H X T U T X T W J
M P J F F V U H K G O S A I C
F R U I K R N A I S S U A G C

BEAM
ELECTROMAGNETIC
GAUSSIAN
LASER
LIGHT
NONLINEAR
OPTICS
PHYSICS
QUANTUM
Radiation



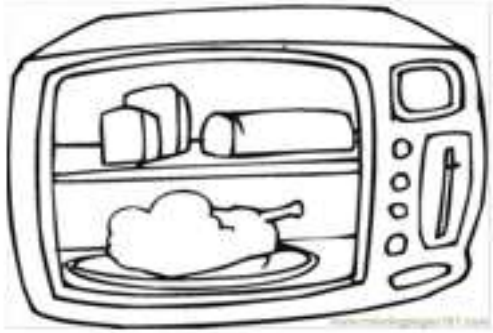
A laser is a light that is focused particles. You can see the laser in the fog because the fog scatters the light through the air molecules which is called refraction.

Created by Crimsin and Cody

Microwave

A W Y M S Q D C E Q P F B D F
I N G F A N U L L H G V A D G
K O P M I E O O E D Z O O C Y
T R A E U E G R C E Y N O L A
V T Q Z E T X H T J K N M X T
J E R X F Z R U R C D E S A J
T N F D M K P Y I U E K X G Q
M G E V A W O R C I M L E W H
R A C O I L C T I L B L E A T
W M H X D G I P T F U A D V V
K G L U H O M K Y C M H V E W
N D U V N F N O E P E P H N K
V K D C M K T L S Y H I C M B
B X M A K N O P Z B G U J D N
S Y S R T M B V Q O H R O Z T

AMPS
COIL
CONDUCTION
ELECTRICITY
ELECTRONS
MAGNETRON
MICROWAVE
MOLECULE
VOLT
WAVE



A typical **microwave** oven ramps up the electricity from a 120-volt outlet. The key component is the **magnetron**. Instead of flame or **electric coil,** the microwave penetrate food and create heat from within. The microwave sends waves through the inside and heats up things, this energy can work with more than food.

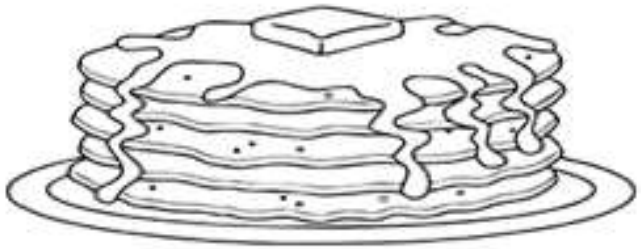
Created by: Ritik, Caleb, Shanna

DO NOT TRY AT HOME!!

Making Pancakes

H Y L N O I T C A E R S H S O
E F Q E N V H I O N F Z V O X
A X S O I E T D M U A N R L D
T E V O M D C I Q H O C F I K
Q H D I L D H C E B K F I D O
S R C I V I V A R B O Q C F M
Y A V Z X S D A B M C I H I S
L X T U B O C N B T C G E E C
R D R E G K I B M Z A K V S H
M I Z A U C T D S S C I D U N
O D W I C W E J N C U O C E M
Y V U Q R C L K P S T H S Q N
P D O M R F L R Z A G Y M W B
T L E O B K V I U E N E R G Y
G I Y E W M U P P L S Q J R I

ACIDIC
CARBON
CHEMICAL
DIOXIDE
ENERGY
GAS
HEAT
REACTION
SOLID
SOLIDFIES



With the ingredient that makes pancakes super delicious, the first step that takes place when making pancakes is a chemical reaction with the water and the pancake mix. When the pancake mix is nice and thick, the skillet is powered by electrical power to heat it up. The pancake mix is put onto the skillet causing tiny bubbles of carbon dioxide that trapped as the batter cooks and this is called conduction.

Created by Arlinda, Emily, and Alaina

Speed Force Parachute

M F Y F L D M Y D C S A Z O W
F X I T J L F T M H C P C T P
U L I E I K Q A W C N J E Z J
U G H B I V A C E N L L R E K
E J C S R X A L R Z H X D D D
M F O R C E E R Y Q E C B L L
E F I D M R R X G D V Y L K H
P P T U A Q A Z K Z B E O N E
M M U T Y I I M A J W M O C D
A Y I G L X T A D M W I E X W
W O C Q N W R R K V T T T E O
N G A R D R E D I D A J P P D
U E T Y C B N X M A M U W U W

ACCELERATION
AIR
DRAG
FORCE
GRAVITY
INERTIA
MOTION
PULL
PUSH
RESISTANCE
SPEED

Parachutes are designed to reduce your terminal velocity by about 90 percent so you hit the ground at a relatively low speed of maybe 5-6 meters per sound (roughly 20 km/h or 12 mph) so you can land on your feet unharmed. This is called drag.

Created by Fernando and Brennon

Planetarium

Astronomy
Comet
Constellation
Earth
Moon
Planet
Space
Star
Sun
Universe

S P A C E R N C Q T C V J E L
L F J J F O N U E P U O H S F
N O O M F Z S N S S X H M R S
B R S F F T A J M V E P V E P
N O I T A L L E T S N O C V T
Y K K R P E O U U U X N R I A
P M K H S I E I K S J D F N Y
E O O B L Q A K X U F H Q U Q
V G T N T G R S J D R X K H P
H B Z T O J T M C P Q T T U V
Z S C P Y R H B I D S B X E N
E F J A U M T R U K Z H Z Y E
M H Q M Y E L S X I G U H Y B
K P Y Z L I G L A X Q M K G F
L B H O D R I V H Z R I M M B

Created by: Sam and Liberio

A Planetarium is a building you can go to see what the night sky looks like. The night sky consists of stars, planets, and comets. Our sun is a star. All of these things a part of big solar systems which is part of a bigger universe.

Radar Gun

P W R V K T O I M A E H I L C
D R A K E R C G P N G C H I M
V I D V B L C E M K B O T Y E
U W A T E A O Z F K Z E T M A
S Y R Y P Q O C D F N C C Q S
S O U N D U T S I G E K C K U
G M X A C C U R A T E L Y C R
X O X J K H O M E P Y A D X E
R C Z L F I O R L M O J Q Z Z
Q Q Q B D R A J T S Y T S B T
A Z C A T N R E L P P O D C Y
G S R C G U U N E C A V I H M
U L E I Z E W R K T T J K V P
N L N W G N W E H B S K I W S
E G O U X S L Q F J U X W M U

ACCURATELY
DOPPLER
EFFECT
ELECTROMAGNETIC
GUN
MEASURE
RADAR
RADIO
RANGING
SOUND
VELOCITY
WAVE

A Radar Gun is an electronic tool which uses electromagnetic waves called radio waves to detect and locate moving or still objects. 2. Radar guns are often used as police radar, Doppler radar, and commonly used in baseball for pitching. Created by Caleb, Brady

MEET MY FRIEND FLUBBER

N R I W F Q E P Y Z X F W O O
N D J F H L T R X X A T Y W P
D S V A A D T X X B R L I E V
L K Z S Q S N V T P O M I R U
Z E T D I U Q I L Q B O Q K C
N I N M M S U Y W Q Z L O P C
C O E B C X N U A C N E M E A
B H S I Y R F W V L Y C M W Y
C T E P V F E Q U M T U Y N O
W S Y N T X F A H M U L P D A
S O L U T I O N C C O E F L R
E Y U H O G X G W T R G R H W
B E N E N Y X B W F I A K B L
W U H D V U P L O V H O T L S
J B B F D E S O F R E I N S M

BOND
BORAX
CHEMISTRY
ELASTIC
LIQUID
MOLECULE
REACTION
SOLUTION
STARCH

Slime is a large chain of compounds created by borax, water, and glue creating an elastic flubber friend!

- Ashley, Gloria, and Ellie

Strobe Lights

B Z T Z B I V S K C Y R C Y T
Q M P R W U S I B T G O J G V
P X E J J J M C I H D T M R O
E G I H H O U C I Z F S O E L
S T H G I L I I P R H N L N T
V S S S T R O B O S C O P E A
R C N W T U J A A P G U L R G
A X S C G M N L C K T P I N E
H E E R O D F X L T V L H T J
Y L C T S Z U D Y B K U H C H
E M I R N X V N W U U C E F R
H O J O U C S Z T U B E F T C
N D Y D H O Q L C L I C E M V
D L S K A M S X Z V R N R I T
A K U L Q T Q Q H C Q P Y C B

CIRCUIT
ELECTRICITY
ENERGY
FLASH
LIGHTS
MOTION
SOURCE
STROBOSCOPE
TUBE
VOLTAGE

A strobe light works by illuminating an object with a very brief flash of light. If this flash of light is repeated at the same rate as an object is rotating, then the rotating object will appear to be stationary. Created by Rachel and Mariela

Thermal Vision

N	Q	L	A	C	Q	E	S	X	T	S	M	F	K	O
I	V	K	E	S	G	W	E	N	H	V	R	O	M	B
E	R	U	T	A	R	E	P	M	E	T	Q	K	O	Z
M	P	F	Y	H	E	J	S	Y	R	L	P	S	N	J
V	A	T	O	L	R	T	R	Z	M	I	W	E	K	K
R	U	R	T	C	N	G	O	X	A	Y	X	Z	A	V
T	K	L	G	E	U	V	T	I	L	C	F	F	E	S
E	D	E	M	O	P	S	C	D	U	B	P	I	W	B
D	I	E	H	T	M	N	E	T	H	G	I	L	Z	C
G	L	P	Q	U	L	R	T	D	L	T	A	O	Y	Q
E	I	N	F	R	A	R	E	D	O	R	H	Q	K	E
E	A	F	U	E	P	V	D	H	R	G	K	L	A	T
U	B	G	X	Z	R	A	A	A	T	S	M	T	O	D
J	Y	Y	O	S	J	O	Y	J	Q	T	A	G	J	P
R	S	U	G	L	R	K	C	S	L	O	L	R	A	R

ARRAY

DETECTOR

ELEMENTS

FOCUSED

INFRARED

LENS

LIGHT

TEMPERATURE

THERMAL

THERMOGRAM

Thermal Cameras work by showing objects that are hot as white and objects that are cold as blue. It uses a special lens that can show heat and cold.

Created by Brandon Beaver and Bryson Cheak

Blackout Party

V	P	F	Y	T	T	O	L	T	E	T	T	R	H	S
I	X	H	H	R	Z	L	M	G	E	I	N	A	J	M
C	G	G	Q	B	U	I	G	L	A	D	E	D	C	Q
Y	I	A	G	S	Q	C	O	D	P	N	C	I	F	T
L	I	L	S	L	P	I	B	H	T	E	S	A	M	O
G	W	F	X	B	V	H	I	E	L	G	E	T	M	R
J	U	B	Z	A	N	U	O	E	M	C	R	I	Y	P
P	M	K	R	H	Y	O	C	R	A	X	O	O	L	Y
Q	D	T	I	J	H	T	N	H	S	J	U	N	U	X
E	L	E	C	T	R	I	C	I	T	Y	L	S	L	W
U	C	D	N	O	Y	W	Z	U	A	I	F	S	K	U
N	B	X	M	Z	G	M	U	R	T	C	E	P	S	L
O	B	S	C	T	C	D	X	M	S	B	D	X	D	V
Y	P	G	F	Y	F	Q	R	X	M	Q	M	B	M	P
D	A	E	C	Z	V	F	X	A	I	V	V	H	U	E

ELECTRICITY
ELECTRONS
FLUORESCENT
LIGHT
MERCURY
PHOSPHORS
PROTONS
RADIATION
SPECTRUM
ULTRAVIOLET

A black light is also known as a Ultraviolet light, which gives off the color of violet or a very dark purple. It is purple because it contains phosphors, which is a substance that helps make light colors that glow in the dark. Created by ; Anna and Rosie

Water Rockets

E C N A T S I S E R T A M M N
B N U S C Y Y G D T C S U O G
M T O X K T C X S C A M T T S
S D U I I L A J E X E N N I N
S O A V S C F L Q C R V E O D
U D A P I O E V O Z O U M N W
F R Z Y F R L W D P D L O Z C
G R B Z A P A P X X Y T M S R
S M O T J T H M X T N J J D D
Y H I C E K I R P E A Q T L J
E O X R K D H V U Y M O U Q P
N K K V E E J P D T I K K D W
X P Y P V W T C L P C Z W Y Q
I R G Q Q T Z V E D S J N T U
S Z I N E R T I A J E W M A Y

Acceleration

Aerodynamics

Explosion

Gravity

Inertia

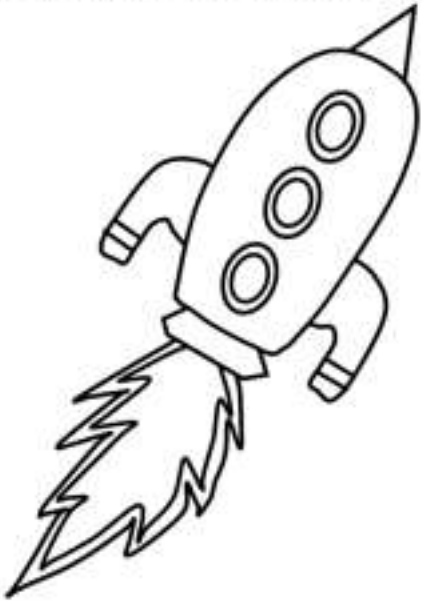
Momentum

Motion

Resistance

Rocket

Water



Air pressure builds inside the rocket before pulling the pin. After the pin is pulled, the rocket shoots into the air. This is Newton's Third Law: Every reaction has an opposite or equal reaction. Created by: Annalee, Caden, and Michael

Wi Wi Wii

E C C C I K T K R J B J I A C
T M F Q O H Q L F G F C T I I
O M D Y G N O F W E O S T G N
M I J I U Q N O J N U E U Y F
E E L S I P P E S L N V Z V R
R L P Y K U Q O C G A X J N A
Z L M I O F L Z A T N N Z W R
K R O S N E S M Q S I T G S E
H E A T U B O L T R W O Y I D
S C O N T R O L L E R N N G S
M I K Q T K S A X N W H B J K
N Y C C I U F G F L R B P Y Q
A O E Z X G T T R W L P U U W
T L I O Y N E U E M J D T G A
E Q X B D B Q A C S M M W E V

CONNECTION
CONSOLE
CONTROLLER
ELECTROMAGNETIC
HEAT
INFRARED
LIGHT
REMOTE
SENSOR
SIGNAL

The wii is a console that uses infrared light sensors that makes the controllers connect which detects movement. Created by Marcus, Shacory, and Devin.

Petting Zoo

C P W Z C O J Y I P W Q N G D
O C M P W Z X G P O U L T R Y
A L H D N Q E O R G N W W K A
T Q A S C L T L R D Z T W Y H
W Y A S I Y X O O Y Y W A W L
Y L V T I C R I M J E P J A H
G R P O L O S B P A Y E R P J
Q E I J A G J E E D M F L E T
R O T A D E R P I V R M P J J
Y H Y G V H H L L C I X A I V
L X P I K E Y S Q T E F H L X
B B M L R Z I F Y O M P D B A
G V E D G U Z S O B Z J S S M
E T B W H Q C E Q T U G C L P
I Q T C Z P L K E B F B N H V

BIOLOGY
COAT
HERD
MAMMAL
POULTRY
PREDATOR
PREY
REPTILE
SPECIES
WEB

A mammal is an animal that has fur, warm blooded, gives milk and has live babies at birth. Reptiles are cold blooded and covered in scales. Aves are feather bodied toothless beak jaws and lay hard shelled eggs.

Created by Kay, Victoria, Alexis, Celia

Lego Robotics

R C D T O M L N T M J S X J N
S N M M G O D K S T I B V M U
H B Z O G T P J V G L N K I I
V S J X H I Z Q N Y D N Y F U
T Z C O J O I A N G O R N Y H
Y Z C O H N L V A I I C J T C
A R G W A V E E T T X J X M J
G E O U I K N A W R S B C Z F
L D B B K H R U C G R A C C U
H Y E S O E C R O F A S M P G
X P J E L T T C Z P E H Z F T
N I K E P W I O Q P G A Z W N
L H C M M S N C I O P G H O F
U C Q W R M L X S G X D L H G
A B Z B L U E T O O T H S Z W

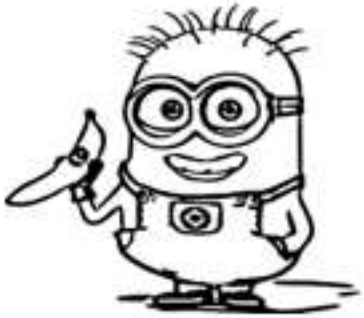
ACCELERATION
BLUETOOTH
FORCE
GEARS
LEGO
MOTION
ROBOTICS
SIGNAL
SPEED
WAVE

Lego Robots work by having an iPad send a blue tooth signal to the robot. The signal tells the motors to turn.
Created by Zach, Matthew, Micah, and Garrett

3D PRINTER

M P C C E D P A I G N X S H G
V Z I E G Z D Z O O L M H O N
Y Q Y E Q D I V I T R E D M I
Y L Y O I T J T N O W T X E R
S F M T H E A T T V F H C R U
W L I T E C H N O L O G Y A T
U V T L I A E C V E P S M W C
E K C L A V Q P W X N E W T A
M J P T N M Y C L T C M B F F
Y E S I R N E T X R O V G O U
R Q Y D B A I N O U I W E S N
R E T U P M O C T D F Z K M A
T J N M Z H Z Q Z E Z B C C M
R G X N A P B Z E R S H S V O
O P P I H P U F M Q C C K J Y

ADDITIVE
COMPUTER
EXTRUDER
FILAMENT
HEAT
INVENTOR
MANUFACTURING
REPLICATION
SOFTWARE
TECHNOLOGY



A 3D printer works by having a computer send information to the printer. Once it is received, the printer will heat filament and push it out of an extruder in a series of patterns that will replicate what the computer sent to the printer.

Created by Kaleigh and Grant

Airsoft Guns

H P M U E E I K I Z A R D P L
D M R C M N J L F S U A E Z A
J E R E E E L Z Z B N A E Z I
D O S R S U D K B F C L P N T
F J T S O S M B S K C I S N N
R I K N E I U X K I W I F Y E
A F R N N R C R H N G F U W T
Q E Y G O Y P I E E K L O Z O
B F D P U I H M R T C M B C P
V E L O C I T Y O I U O N S A
W V N U H U G O Z C U A K E T
C S D J V U F N M H X O S N H
P I T K Y H Z Q O Q Q E Z P J
Y G R E N E D V A M A V P H E
S W U Z S D R R Y S K Z I N Y

BERNOULLI
COMPRESSED
ENERGY
FORCE
INERTIA
KINETIC
MOTION
POTENTIAL
PRESSURE
SPEED
VELOCITY

An airsoft gun works by using potential energy to pull back the BB and kinetic energy to shoot forward the BB. Created by Annabella and Kiara.

Bass of Color

I D N O U Y L J G M I N O O G
M N K V L I X S U D S X K U G
R A F L T D V L Q L P K G J Y
F N X R R Y C N E U Q E R F M
M L X D A O J J R L O P V X K
V G N I S S F Z Y G B Z C Q F
H V D M O T O L I V P E C Y S
B A N H N J I N I O H R R S B
K R U I I F M B I T Q E E T A
C S O Q C N R H C C A V R C S
H V S S L A H H H C A J X T S
A P P I T C H G L W C O Z O Z
C O B I O U U T J V L T W F X
V J O P M E I A I K N Y M M C
I N J E G D H N Y B O V Y L J

BASS
FREQUENCY
HERTZ
INFRASONIC
PITCH
SOUND
TREBLE
ULTRASONIC
VIBRATION
WAVES

Sound travels by waves. Vibrations are what causes the speakers to move. The more bass you have the more sound waves you create. Created by: Addyson, Courtney, Trinity

CHEMISTRY

S Y P P Y N C K Q P K A Q W N
W U Y S Y B I D K B C U N I Z
S E S A O Z T L I Q U I D D S
O Z F G V X O D L D Q W D T E
Q F U O G E I Q A C G R T G N
W U N J L Q R M I Q J A M Q S
Q L G A L Y E M J A B C X O O
C Y I V Y A P X J L L Y R T L
S A G U J J C T E O Z A N V I
F J S O W Y R I U A U E I M D
Y D P B H C R B M X M L U P P

ABRASIVE
CHEMICAL
DNA
ELEMENT
GAS
JOULE
LIQUID
MASS
PERIOTIC
SOLID
TABLE

You can do many things within chemistry. With elephant toothpaste for example, when you mix hydrogen peroxide with potassium iodide you get foam that grows and grows. Once you mix these chemicals you cannot undo them.

Bullseye!

M Q Y Q C I E N Z S O P P P F D X H L U
C K G F P S O E I B F K I G I U T N C Z
V O J C A I M I N L B P A R A B O L A T
P M Z T T O Y V I Z A O H U B D V N E E
C V L C T P G G K Q Z P K A T E F R R W
G I I U C O H I C M G N K O K A C D O Z
V R M K E T I R Q O N C N Q V N Y R S U
F I O A T H L Y V O I H S A A Y S I O G
C X Z B N Q U A A T H G I E W B X W E F
N U P B Y Y U B R K C T J F S H S P K W
G L N U N D D N T L T R K P T G K V W X
X R H U P R I O H T E Q X Z A L Z R O C
L G A I W K Z O R Z L X H N T T F I Y Q
M B G V E R H G U E F O U N H I R F C K
I Y C G I V S H S L A Y O N N R Q O W M
D W A D U T F H T N M B J A E N J S A I
G N G S I D Y M G T E S Q L P F G O V C
Z G A E B E U O B E A J H T U Y J J T Z
U U R P H Q C G V P R N B Z T Y G J W T
L G D A H K Y L O V V K E Z U M E I Y T

AERODYNAMIC

DRAG

FLETCHING

FLIGHT

FORCE

FRICTION

GRAVITY

PARABOLA

THRUST

WEIGHT

Darts fly in a parabola shape, which is called the curve a flying object takes. Darts must be properly balanced and weighted in order to fly and stick in the board. How the dart flies can affect where the dart hits and its chances of sticking in the board. Darts are affected by thrust from the throw, drag from friction in the air, and gravity from their weight.

Created by Cameron and Hugo

DRONES

H I Y R E R T R X P L X Z Q J
A N S L O R C M R N A E T I V
T B W S Q V A O H Q N K V V O
E E N Z B C P W A J G N H D I
V E C R R E M O T E I D E D B
S O J H L V G K N F S Q Y I L
W B J L N L P Y D N O B A G U
K D E Y F O S N W T G S J R E
Q R B W O D L H G O R A E P T
E V A K A W L O U H F F E E O
Y P J L S D I V G U R V F E O
B A K S E S R K E Y T M G T T
X U W N S Y T F A R C R I A H
D F Q L A V P O Y J B E I R B
K A X V B N G H Q K A A M S V

technology

bluetooth

propeller

yaw

signal

aircraft

software

sensor

GPS

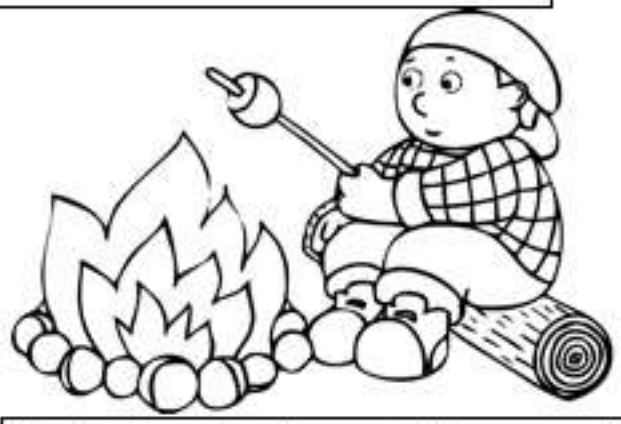
remote

A **drone**, in a technological context, is an unmanned aircraft. ... Essentially, a **drone** is a flying robot. The aircrafts may be remotely controlled or can fly autonomously through software-controlled flight plans in their embedded systems working in conjunction with onboard sensors and GPS. Created by Tayfun, Clayton and Dillon

Steadily Roasting

R C H H S M Y N Z X N T N Z M
V T O S V G Y A R G C Q W R H
F A W N R T N Z O N E F G C C
L H A E V C M F E X W M D U J
C A N H D E S B P C E E K N F
O E M Y H S C A G R Z W D U H
N O Q R Y X N T U L X P Y P Y
D M T G E S Y T I S J P L S F
U S R M I H A B D O H E A T K
C E H O V R T K B D N C K X J
T E N R E F Z R E P M U H C W
I R H P M A R S H M A L L O W
O G M N O I T A I D A R E Q R
N E N L F L F W R R T A F I F

CONDUCTION
CONVECTION
DEGREES
ENERGY
EXPANSION
HEAT
MARSHMALLOW
RADIATION
TEMPERATURE
THERMAL



Heating the marshmallow over the fire removes the sugar which is a chemical reaction that produces the brown color and toasted flavor. It requires high temperatures. When the sugar gets hot enough, it breaks down into smaller molecules. Created by Samuel and Anthony

PUTT PUTT

P M X B W F Y U J T G Z F L Z
V O Y Z K F Z U R Y L P R U G
S F T X A K M H R E H O I T J
A C C E L E R A T I O N C N M
B S P N N C I T E N I K T O E
F O P D O T Y I H Y S K I I B
X E H E V T I P P Z F G O T F
N R Z W E Y W A H O C R N O P
N S I I G D I E L L T F C M D
X D J R S N H Z N C Y U B I A
E D E M E N E G J M S K U B W
Q N H R B L L H Y J I E B V N
E Y T C E F U U Q V L T L N B
V I K E B P I F Q U B G Z O O
A F O R C E L K N J K W F B G

ACCELERATION
ENERGY
FORCE
FRICTION
INERTIA
KINETIC
MOTION
NEWTON
POTENTIAL
SPEED

Putt Putt works due to Newton's Laws about force. The force you use to move the putter is transferred to the ball causing it to accelerate. This is Newston's 2nd Law of motion.

Created by Delaine, Abby, Cameron

Mentos and Coke

T	U	D	Y	H	W	L	E	E	F	J	M	C	Z	V
Z	B	B	I	F	I	R	V	P	I	C	K	E	T	N
B	R	C	Z	O	U	L	Q	H	C	N	V	G	M	C
M	Y	K	C	S	X	J	W	H	U	O	H	T	T	B
W	K	W	S	A	N	I	E	D	N	I	O	T	K	G
F	D	E	F	G	R	M	D	E	U	T	Q	P	B	E
J	R	J	D	A	I	B	D	E	C	P	E	H	P	F
P	T	I	M	S	Y	N	O	X	L	U	A	Y	G	C
I	W	D	T	T	T	P	O	N	E	R	D	M	R	X
L	A	R	U	I	A	U	D	I	A	E	R	E	I	B
R	Y	B	H	O	D	U	Q	X	T	T	F	R	Z	I
N	O	I	T	U	L	O	S	V	I	C	I	L	E	I
K	G	G	T	C	J	Q	Q	U	O	P	A	O	J	T
V	M	W	Y	Q	H	U	F	W	N	U	E	E	N	N
G	E	Y	S	E	R	S	M	M	X	N	L	A	R	D

CARBONATION
CHEMISTRY
DIOXIDE
ERUPTION
GAS
GEYSERS
NUCLEATION
PRESSURE
REACTION
SOLUTION

We place Mentos into coke. This causes a chemical reaction. A chemical reaction cannot be reversed.

Created by Mckensie Shaft and Shaw Franklin

Colored Shadows

W	V	E	P	N	R	L	S	P	N	U	A	U	Z	Z
J	J	M	T	N	Y	A	N	F	Z	S	H	P	Y	E
T	S	S	M	R	P	J	A	U	J	E	N	T	U	C
E	T	I	H	W	D	E	X	L	V	T	C	C	P	N
B	R	F	V	Y	F	H	V	U	T	E	B	E	L	A
S	B	L	U	B	T	H	G	I	L	R	R	F	L	T
N	Y	T	J	W	H	Q	H	F	T	C	V	U	I	S
S	J	M	B	N	V	H	E	L	E	I	L	F	G	I
V	H	Y	U	Y	T	R	H	P	R	Q	D	V	H	D
Q	A	A	P	D	M	S	T	G	D	U	Z	D	T	B
J	R	Z	D	M	B	I	V	U	L	I	S	K	A	C
X	F	Q	I	O	O	M	I	X	T	U	R	E	O	O
J	D	A	Z	N	W	U	X	W	B	T	O	L	K	K
G	W	N	H	G	H	S	P	U	M	R	O	K	P	P
W	H	S	E	O	H	V	R	O	Y	R	D	G	T	R

ADDITIVE
COLOR
DISTANCE
LIGHT
LIGHTBULBS
MIXTURE
PERCEPTION
REFLECT
SHADOWS
WHITE

Not all shadows are black. When lights of different colors shine on the same spot on a light surface, the light reflecting from the spot to your eyes is called an additive mixture. Because it is the sum of all the light.

Created by:

Jacob Hurst, Jessica Seltenreich, and Peyton Bennett

The Sand Pendulum

EARTH
ENERGY
FORCE
FRICTION
GEOMETRIC
GRAVITY
HARMONIC
INERTIA
KINETIC
MOTION
POTENTIAL
ROTATION

I	Y	G	R	E	N	E	R	T	M	N	K	E	L	T
A	N	F	M	K	W	J	I	H	I	O	I	E	E	O
R	E	E	W	Y	I	Y	L	V	H	I	N	C	L	C
U	X	K	R	B	N	D	R	L	Y	T	E	R	G	J
C	L	A	I	T	N	E	T	O	P	C	T	O	N	Q
O	I	J	C	H	I	N	M	C	E	I	I	F	F	Q
X	W	R	T	G	I	A	I	V	L	R	C	X	R	B
D	V	R	T	C	K	N	L	F	H	F	Y	X	W	G
O	A	Q	G	E	O	R	O	T	A	T	I	O	N	G
E	W	X	N	M	M	B	H	N	J	W	B	K	R	E
E	E	F	R	Q	M	O	K	J	O	N	T	A	C	F
X	G	A	U	U	F	I	E	S	U	I	V	K	U	W
C	H	J	E	V	C	A	P	G	P	I	T	U	A	Q
T	O	B	O	W	W	Q	U	A	T	K	K	O	M	V
J	Q	T	N	B	D	N	L	Y	U	Z	I	L	M	U

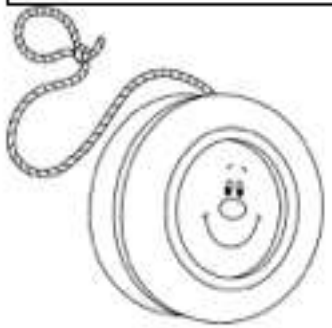
A pendulum works by turning potential energy into kinetic energy and using the gravity of Earth and its rotation to swing in different directions and make art.

Created By: Armando & Lin

Centripetal Force

K	A	O	Z	A	E	C	F	U	K	T	V	C	N	N
M	T	T	V	C	I	Y	A	O	C	Y	E	S	O	T
W	A	T	D	C	L	N	T	E	R	N	X	S	I	A
Z	L	T	Y	E	B	Y	J	I	T	C	P	H	T	F
U	M	X	B	L	L	B	X	R	C	I	E	L	O	C
K	C	X	W	E	O	A	I	S	N	O	W	U	M	C
E	Q	H	L	R	Y	P	J	F	P	B	L	O	K	C
V	S	P	P	A	E	O	R	B	I	T	A	E	I	S
Q	W	B	B	T	J	U	E	A	P	D	K	Z	V	E
A	C	P	A	I	N	Q	A	E	Q	V	B	O	N	F
X	Q	L	S	O	N	C	U	H	A	D	E	R	C	H
I	V	P	Z	N	W	R	A	L	U	L	C	R	I	C
S	R	S	C	T	S	N	Z	E	H	T	A	J	K	Q
R	Q	V	R	T	X	V	R	H	B	M	U	A	V	H
C	D	Z	Y	F	W	M	E	J	B	G	F	M	E	V

ACCELERATION
AXIS
CENTRIPETAL
CIRCULAR
FORCE
MOTION
OBJECT
ORBIT
SPIN
VELOCITY



Centripetal force is the force that affects spinning objects. When something, like a Tasmanian devil, starts spinning, his spin will drive force into the ground and spread force out of the center of his spin. These forces keep him balanced, keep yo-yos spinning, and can speed up or slow objects depending on their size.

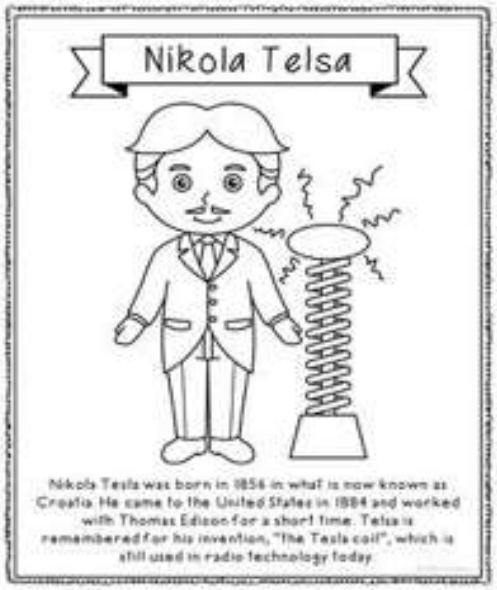
By Carter, Brandon, and Michael.

Tesla

WORD BANK

AMPS
CAPACITOR
CHARGE
CURRENT
ELECTRICITY
FREQUENCY
LIGHTNING
RESONANCE
TRANSFORMER
VOLTAGE

V	E	F	Y	S	C	A	S	C	Z	N	M	T	E	W
C	U	L	D	C	T	H	A	G	E	P	T	R	C	I
Y	Q	W	E	J	N	P	A	T	W	Q	Y	A	N	P
R	E	T	H	C	A	E	M	R	O	L	R	N	A	B
R	R	Q	M	C	T	V	U	L	G	A	T	S	N	B
Q	V	I	I	O	Y	R	X	Q	I	E	D	F	O	W
O	J	T	G	B	Q	M	I	D	E	X	U	O	S	H
E	O	J	X	P	N	T	A	C	B	R	V	R	E	Z
R	M	G	N	I	N	T	H	G	I	L	F	M	R	A
J	E	G	V	E	H	W	D	O	E	T	K	E	J	M
P	Z	K	R	K	R	I	N	O	Y	V	Y	R	R	P
K	P	R	L	M	M	E	I	X	C	W	X	I	M	S
Z	U	C	R	G	U	S	U	X	S	L	K	X	N	S
C	V	O	L	T	A	G	E	T	S	A	Z	Z	B	U
H	Q	X	H	Y	E	Y	H	R	C	C	H	T	C	Q



A Tesla coil is a machine that makes lightning bolts. It produces high-voltage, low-current, high frequency alternating-current electricity.
Created by Alexis, Kayla, and Lacie.

Super Slingers

P	U	A	V	O	P	P	I	I	K	L	T	E	E	D
L	O	P	Y	U	F	S	Q	E	I	Z	A	L	F	N
T	A	T	A	C	R	V	C	H	N	V	A	I	O	A
Y	M	R	E	P	S	R	K	F	E	S	N	V	R	B
W	K	V	E	N	O	I	L	W	T	V	T	E	T	R
L	X	U	M	F	T	W	Z	I	I	Y	E	E	L	E
O	G	E	W	U	I	I	C	P	C	I	N	T	D	B
S	N	A	V	M	U	E	A	J	E	B	S	U	N	B
U	R	C	P	E	N	W	V	L	N	O	I	A	P	U
D	E	A	D	E	L	I	T	C	E	J	O	R	P	R
B	C	R	R	P	Z	O	F	L	R	N	N	F	T	D
T	Z	G	Q	L	O	T	C	W	G	W	E	L	V	H
M	Y	Z	H	F	L	H	W	I	Y	D	V	R	U	R
D	I	S	T	A	N	C	E	X	T	C	P	T	G	N
Y	E	W	Q	L	V	B	L	S	R	Y	Q	W	M	Y

DISTANCE
DRAWFORCE
ELASTICENERGY
IMPACT
KINETICENERGY
POTENTIALENERGY
PROJECTILE
RUBBERBAND
TENSION
VELOCITY

A slingshot works when the rubber band is pulled back to create potential energy, and then kinetic energy when it is released. The projectile is then propelled by the force.

Angel, Brian, Brian