

Choice Boards

Post Pictures on Padlet

This week you are responsible for choosing 1-2 activities off the STEM WARS Choice Board. You are welcome to do as many as you want.

STEM WARS



BONUS

STEM WARS Challenges

Post Completed Challenges on Flipgrid

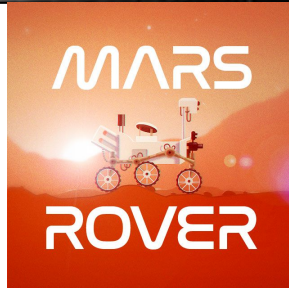
STEM WARS



Post Pictures on Padlet

<https://padlet.com/rossmant2/jo8l801pkv0uyjb5>

CHOICE BOARD



Learn the science behind driving a Rover Spacecraft - Click the link to play <https://spaceplace.nasa.gov/explore-mars/en/>



Click the link picture for an hour of code Star Wars coding game <https://studio.code.org/s/starwarsblocks/stage/1/puzzle/1>



Use a toilet paper roll to build your own Star Wars Character



Make your own Star Wars Flyer. Launch your flyer and measure how far it travels

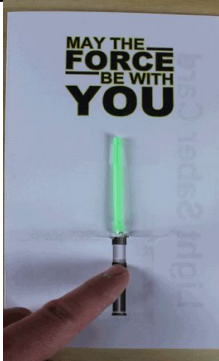
STEM WARS



Post Pictures on
Padlet

<https://padlet.com/rossmant2/jo8l801pkv0uyjb5>

CHOICE BOARD



Make a paper circuit light
saber

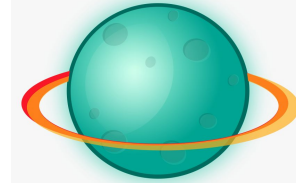
<https://www.makerspaces.com/makerspace-project-light-saber-paper-circuits/>



Use Playdough or legos to
create a
Star Wars Character



Use toilet Paper rolls, duct
tape, and aluminum foil to
make your own lightsaber



Build or draw a New
Planet that you have
discovered and tell 3
things about it

STEM WARS

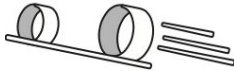


Post completed challenges on Flipgrid:

https://flipgrid.com/fd5724fa_rossman2966

BONUS STEM WARS CHALLENGES

<https://youtu.be/j-gNltr4GnM>



<https://youtu.be/w0DDvMFaHeg>



Launch an EWOK

<https://youtu.be/gG3Go0zYFyE>



<https://youtu.be/Bt3zNzPwr3I>



<https://youtu.be/7jaOT8kdKLI>



St er

★ MATERIALS ★



STEM TRAINING MISSION FLY A FIGHTER GLIDER

Materials listed below are per group (typically 3-4 students)

3-4 index cards (3X5)

1 roll of tape (scotch or masking)

1 pair of scissors

3-4 straws (non-bendy is best)

Markers (optional)

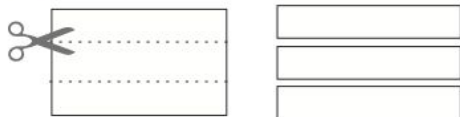
1 hula-hoop w/ string to tie it from the ceiling or door (1 per class)

Student instructions Sheet

★ GLIDER FIGHTer ★

construction manual

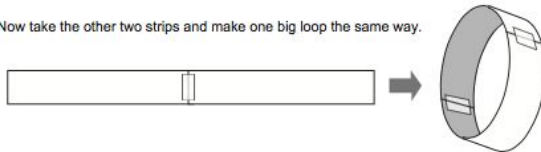
Take a notecard and cut it into thirds lengthwise.



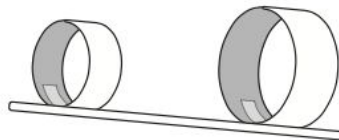
Take one strip of notecard and form a loop by overlapping the edge about 1/2 inch. Now put tape over the seam to hold it. This will be your small loop.



Now take the other two strips and make one big loop the same way.



Finally, tape your straw to the inside of the loops.



STEM Wars

STEM TRAINING MISSION: GLIDER FIGHTER CHALLENGE

ASK:

Can you accurately throw our glider fighter through the STEM hoop?

IMAGINE:

Talk about your throwing form with your group.

PLAN:

To master this Jedi skill, you must build your glider fighter according to the construction manual provided and practice your launch.

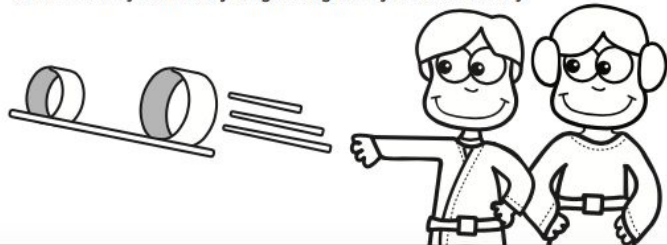
EXPERIMENT:

Throw your gliders with expert aim and speed. Keep track of your points below (5 points for each time you make it through the hoop)!

5 points for each time you send your glider through the STEM hoop.

IMPROVE:

Who was the most accurate in your group? What made them so accurate? Talk about ways to make your glider fighter fly more accurately.



Fly A Fighter Glider

★ MATERIALS ★



STEM TRAINING MISSION

LAUNCH AN EWOK

Materials listed below are per group (typically 3-4 students)

Paper cup (a sturdy cardboard type ... not a flimsy paper cup)

2 - 12 in balloons (1 as a back up)

duct tape

scissors

10 - mini marshmallows (1 put them in a small baggie)

Student Instructions Sheet (aka worksheet)

Construction paper target (see video)

3 pictures of different size stem troopers to shoot

OPTIONAL:

Colored mini marshmallows

Fun designs on the cups and duct tape

STEM Wars

STEM TRAINING MISSION:

EWOK LAUNCHING CHALLENGE

ASK:

How can you use "the force" to launch an Ewok at a STEM Trooper?

IMAGINE:

You each have 3 Ewoks to launch. Decide with your group which STEM Trooper to aim at: Small (10 points), Medium (5 points), or Large (3 points).

PLAN:

To master this Jedi skill, you must create and use an Ewok launcher to launch Ewoks at the STEM Trooper.

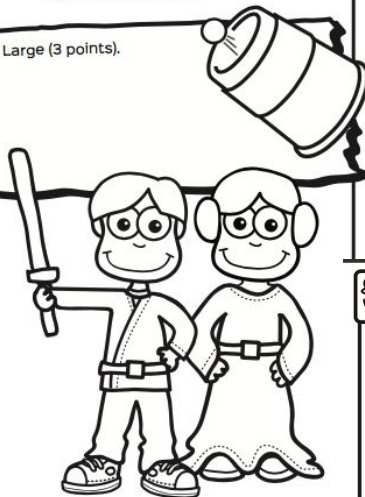
EXPERIMENT:

Launch your Ewoks! Keep track of your points below.

Small (10 points), Medium (5 points), or Large (3 points).

IMPROVE:

What could you do to make your launcher shoot the Ewoks farther and more accurately? Share your ideas with your group and your teacher!

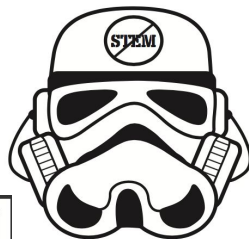


STEM Wars



3 pts.

STEM Wars



5 pts.

STEM Wars



10 pts.

Launch an EWOK

★ MATERIALS ★



STEM TRAINING MISSION

LEVITATE A SPHERE

Materials listed below are per group (typically 3-4 students)

Straws

Ping pong balls (STEM SHPERE)

Student instructions (need to be spread out on different tables)



STEM TRAINING MISSION:

LEVITATE A SPHERE

ASK:

Can you use "the force" to levitate a sphere (ping pong ball)?

IMAGINE:

If you had the ability to cause anything to levitate, what would it be? Share your thoughts with your group!

PLAN:

To master this STEM skill, you must be able to levitate a training sphere for a minimum of 3 seconds... longer as your skills improve.

EXPERIMENT:

After constructing your levitating device, practice levitating your STEM Training Sphere. With your group, keep track of each person's levitation times (on chart below).

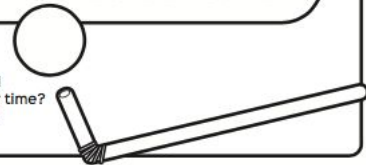
NAME:

SECONDS FOR EACH TRY:

	TRY:1	TRY:2	TRY:3	TRY:4
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
_____	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

IMPROVE:

Is there any way to keep the STEM Training Sphere for an even longer time? Discuss ideas with your group and test them out!



☆ MATERIALS ☆



STEM TRAINING MISSION

ROLL A POP CAN

Materials listed below are per group (typically 3-4 students)

5-10 balloons (assorted sizes and shapes)

1 empty pop can

Student instructions Sheet

Optional:

Hole punches (little round pieces of paper)

1 sheet of random paper

Stopwatches (to time their can)

STEM Wars

STEM TRAINING MISSION: POP CAN CHALLENGE

ASK:

Can you use "the force" to move your pop can without touching it?

IMAGINE:

Share at least three ideas of how to get the can to move with your group.

PLAN:

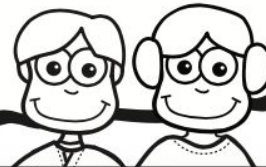
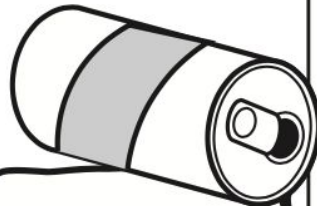
When you rub a balloon on your hair, what do you notice happening? How could you use THE FORCE of static electricity to move your pop can??

EXPERIMENT:

You have one minute to complete this training mission! You may only touch the can to **TURN** it.

IMPROVE:

Draw a picture below of what your group could do to make your can go faster and farther using THE FORCE!



★ MATERIALS ★



STEM TRAINING MISSION SINK THE STEM TROOPER

Materials listed below are per group (typically 3-4 students)

2 ketchup packets (that float!!! – see video)

1, 2L bottle filled almost to the top with water

Student Instructions Sheet (aka worksheet)

OPTIONAL: Permanent Marker to draw STEM Troopers on the back of the ketchup packet

STEM Wars

STEM TRAINING MISSION: DEFEAT THE STEM TROOPER

ASK:

Can you use the force to lower a stem trooper hiding in a ketchup packet?

IMAGINE:

Inside the ketchup packets, the STEM Troopers have small pockets of air to breathe. With you group, talk about why this causes them to float?

PLAN:

You need to scare the STEM Troopers away by making them sink a few times. Your group must do this by applying The Force (pressure) to the outside of a 2 Liter Bottle!!

EXPERIMENT:

How fast can you make the STEM Trooper sink?

_____ SECONDS

How many times can you "scare" the STEM Trooper away in 1 minute?

NUMBER
_____ OF TIMES

IMPROVE:

Draw a picture of what you need to do to REALLY scare away a STEM trooper.



Sink The Stem Trooper