

# THINKERCISES:

Where thinking, creativity, and STEM meet  
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## ACTIVITY RESOURCES:

TEACHERS PAY TEACHERS- STEM units (STEM olympic units, themes, topics, etc)

DESIGN YOUR OWN RELATED TO UNITS:

- Costume party- Create a costume for an animal, an alien, a famous person, etc. going to a costume party;  
(garbage bag, paper plate, tape, paper cups)
- Lounging Around- build a chair or shelf for a giraffe, a stuffed animal, or a toy  
(stuffed animal, newspaper, tape)
- Something New- use given supplies to create a new animal, a new tool, a new product  
(Cups, foil, tape, string, construction paper, pipe cleaners)
- Task, Task- create a device that will accomplish a specific task  
(foil, straws, q-tips, string, tape)
- Statue of Importance- build a statue to represent an important topic or idea or a particular person who needs to be honored  
(foil, tape, cups, plates, construction paper)
- Trapped- build a trap for an alien, an animal, a fairytale character..  
(toothpicks, straws, craft sticks, tape, yarn, cups)
- A Place For- build a home or playground for an insect, an alien, a historic figure, or build a home for an abstract idea (happiness, greed, success)  
etc  
(construction paper, paper plates, tape, cups)
- Carrying On- design a device to carry, hold, or transport an animal, supplies, a stuffed animal, specific items such as valentine candy, pumpkins, ghosts, an octopus, etc...  
(coffee filters, cardstock, straws, string, tape)

PINTEREST

PBS KIDS

WEBSITES WITH STEM RESOURCES

## ORGANIZERS:

1. ASK- What is the problem? You will use only the supplies given to create a device that will catch an alien.
2. IMAGINE- How might I trap an alien? What could I use to bait him? How can I use the tools I have?
3. PLAN- Draw an illustration of your idea of what your alien trap will look like.
4. Discuss your ideas with your partner or partners and then together come up with the trap you want to build. Draw it below.
5. IMPROVE: After building and demonstrating your alien catcher, what worked well for your group?
6. What didn't work so well for your group?
7. What would you do differently next time?
8. What is one thing you have learned from this activity?

## EXTRA QUESTIONS FOR DISCUSSION:

- If you could add a new material, what would it be and why?
- What surprised you about this activity?
- What do you think was the purpose of this activity?
- What frustrations/ successful moments did you have?
- How does the following quote relate to your experience with this challenge? (use a quote on success or failure such as :” Think like a queen. A queen is not afraid to fail. Failure is another steppingstone to greatness.” Oprah Winfrey”)
- How well did you and your partner work together?
- What strengths/ weaknesses did you discover about yourself and/or your partner?

## BOOK LISTS:

Beautiful Oops by Barney Saltzberg

The Most Magnificent Thing by Ashley Spires

Rosie Revere, Engineer by Andrea Beaty

Mechanimals by Chris Tougen

Mistakes That Worked by Charlotte Jones

What Do You Do with an Idea by Kobi Yamada

Frooodle by Antoinette Portis

Rain by Linda Ashman

Not a Box by Antoinette Portis

A Splash of Red by Jen Bryant

## TYPES OF SUPPLIES:

pipe cleaners

paper plates

paper cups

construction paper

cotton balls

masking tape

rubber bands

yarn

plastic utensils

coffee filters

toilet paper rolls/paper towel tubes

aluminum foil

q-tips

straws