

# STEM Ahoy! Basketball Hoop Challenge

## Directions

### Challenge:

Create a basketball hoop AND ball launcher made from household items.

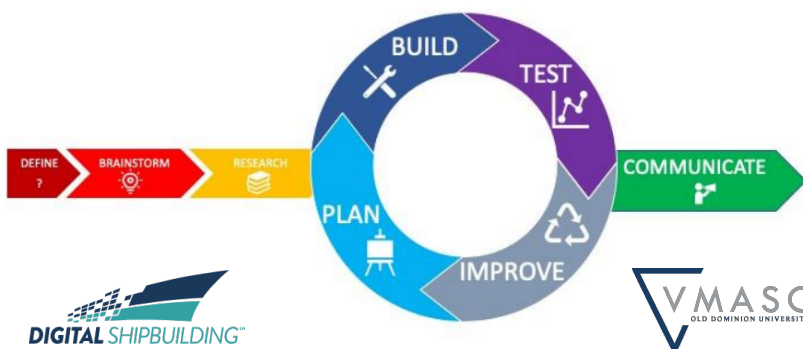
### Directions

\*In this challenge you are designing 2 things: Your basketball hoop AND ball launcher!

\*To increase level of complexity- separate your family into 2 teams! (One team will design the hoop & the other team will design the ball launcher!)

1. Research and brainstorm designs of basketball hoops.
2. Sketch your prototype/design of your basketball hoop.
3. Use research and sketches to start brainstorming your hoop prototype (what will the hoop look like? Will it be a classic hoop or have new features?)
4. Plan your ball launcher prototype: draw or sketch the design. Watch some videos on catapults!
5. Use your household materials you chose to help with the ideas.
6. Make a model of your hoop!
7. Test your hoop and ball launcher designs! Will you have to modify?
8. Send a picture of you completing your challenge on Twitter and tag @classr00mrescue to be entered into the Tech Prize drawing!

### VDOE Engineering Design Process:



### Materials:

- \*Suggested Items\*
- \*Empty Cardboard Boxes
- \*Cardboard
- \*Paper
- \*Straws
- \*Tape
- \*String
- \*Index Cards
- \*Ping Pong Ball
- \*Popsicle Sticks
- \*Plastic Spoon
- \*Rubberbands
- \*ANY household item!
- \*Your Imagination!!!