**Duct tape Challenges**

***Materials***

1. Clothing – 6 rolls (or 60 yards) of tape
2. Electric Powered Rover – 3 rolls (or 30 yards) of tape
3. Step Stool – 5 rolls (or 50 yards) of tape
4. Boat – 4 rolls (or 40 yards) of tape

***Challenge 1: Clothing***

**Materials:** 6 rolls of tape (or 50 yards)

**Rules**: No cardboard rolls can be used in the making of the clothing. No tape can be attached to current article of clothing. In other words, you can’t use your clothes as a part of duct tape challenge. All buttons or fasteners must be created via duct tape. You must be able to wear and remove your duct tape clothing items during judging.

**Design Criteria for Judging:** You will be awarded points (1-10) for your design, complexity and creativeness. For every article, you must model (example: you made a shirt, tie, and shoes – someone on the team must model these items). More than one member of the team can wear more than one article of clothing. Every team member must have at least one article of clothing.

***Complex*** Shirts with buttons, Dresses/Skirts, Suits, Pants

***Medium*** Hats, Shoes

***Easy*** Ties, Socks, Belts, Earrings

***Challenge 2: Electric Powered Rover***

**Materials:** 3 rolls of tape (or 30 yards), 1 electric motor, 2 AA batteries, 1 AA battery holder

**Rules**: Can use the cardboard rolls anywhere on the rover. The rover must be able to travel the longest distance on the runway (in a straight line) in competition with other teams.

**Design Criteria for Judging:** You will be awarded points (1-10) for your design, how much it can hold and how far it can travel.

***Challenge 3: Step Stool***

**Materials:** 5 rolls of tape (or 50 yards), must be able to withstand one member of the team, must be at least 6 inches off the ground with 2 steps up.

**Rules:** Can use the cardboard rolls anywhere on the stool. Must have “legs” and must be at least 6 inches off the ground. It must also hold at least one member of your team.

**Design Criteria for Judging:** You will be awarded points (1-10) for your design, how many team members can stand on it at one time. If you can get all of your team members on the stool at once you will get 1 additional point for every member (example 10 points for 3 and 3 more for the rest of the team for a total of 13 points max assuming a team of 6)

***Complex*** Holds at least 3 team members

***Medium*** Holds at least 2 team members

***Easy*** Holds at least 1 team members

***Challenge 4: Boat***

**Materials:** 4 rolls of tape (or 40 yards), no more than 12 inches

**Rules:** Can’t use the cardboard roll anywhere on the boat. The boat must be able to float on water with a weight. The boat that can float the longest and hold the most weight wins.

**Design Criteria for Judging:** You will be awarded points (1-10) for your design, how much it can hold and how long it can stay afloat with the weight.