

Destination ImagiNation®

unidentified moving object

Colorado Team Manager  
Training

# Your Team Will...

- Design and build **Equipment** that will move unique Materials to and from towering heights
- Start and end the Presentation with all the Equipment contained in the team's **Storage Box**
- Create and present a **Sale Promotion** highlighting the features of the Equipment

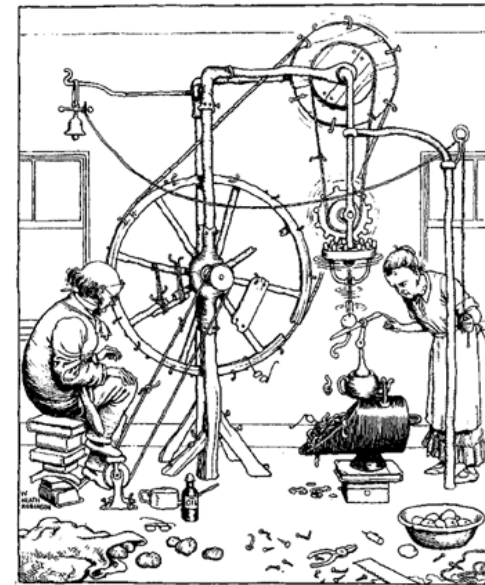
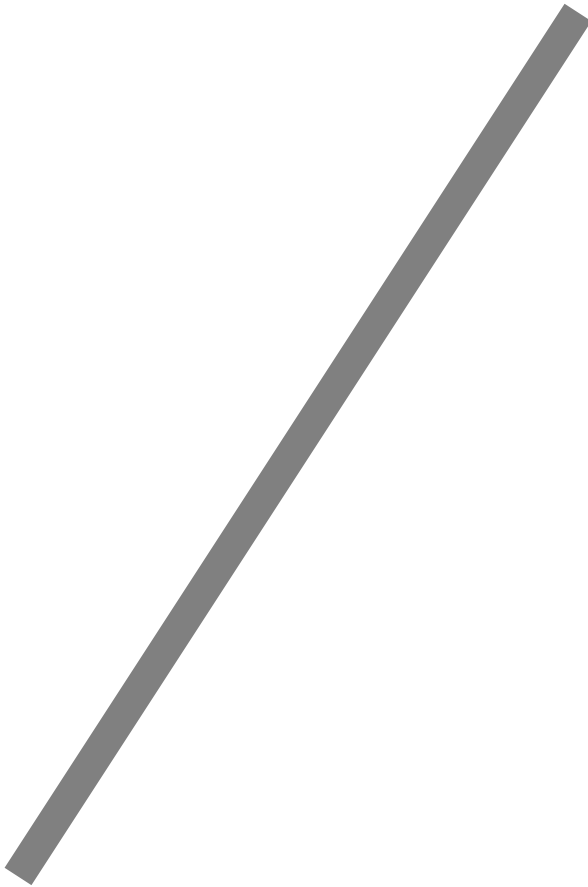
## And Also....

- Have a lot of fun
- Bond with each other and with your Team Manager
- Learn about innovative machines, construction skills, teamwork, time management and acting

# This Challenge Can Be Solved in Many Ways

From the very simple....

To the very complicated



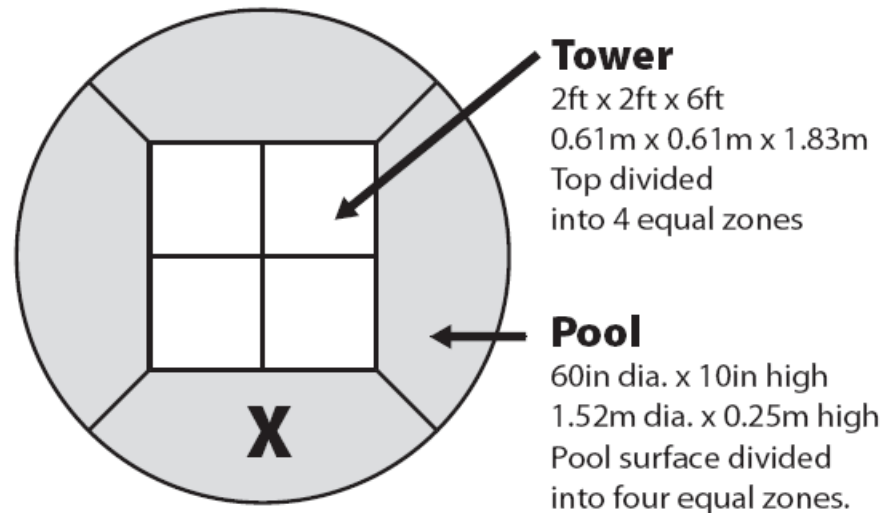
The Professor's invention for peeling potatoes.

# The General Idea

- The team's Equipment will move various Materials from a floor level pool up to the top of a tall tower, and move other materials from the tall tower down to the pool.
- The transport of materials may be in sequence or simultaneous, but needs to be done in a timely manner.
- The team's Equipment will be able to move Materials without touching the sides of the pool or tower.
- Team members must refrain from climbing up on chairs or ladders and must stay earth bound on the floor at all times.
- Even though the Equipment will be able to move materials to and from a tall tower, extra points can be earned if the Equipment is able to start out and end up entirely inside the team's Storage Box.

# The Layout

**Minimum 20ft x 20ft (6.10m x 6.10m)  
Performance Area**



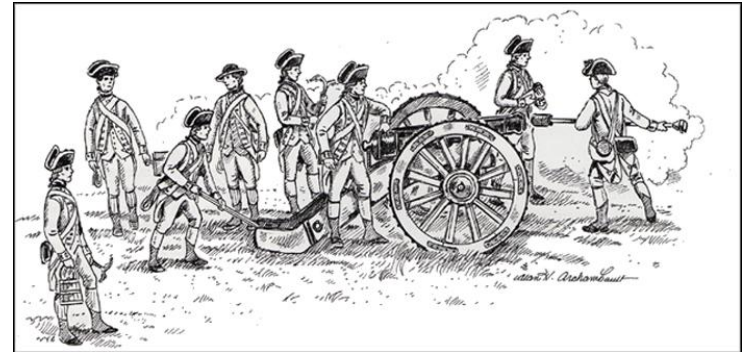
- Pool is dry except at Global Finals.
- Pool and tower are located in approximate center of Performance Area.

**Audience**

# About the Course

- The four zones of the pool and the four zones of the top of the tower will be marked with tape.
- The team's Equipment may be located anywhere around the pool, may reach over the pool or tower, but can't be supported by the pool or tower.
- The tournament will place four different Materials at the "X" in the pool, but not on top of each other.
- The tournament will place four other different Materials near the center of the top of the tower, but not on top of each other.
- The team's Equipment will move the Material originally in the pool to the top of the tower.
- The team's Equipment will move all the Material originally at the top of the tower down into the pool.
- The ending location of Material can be random as chosen by the team.
- There is no extra score for moving a Material more than once.

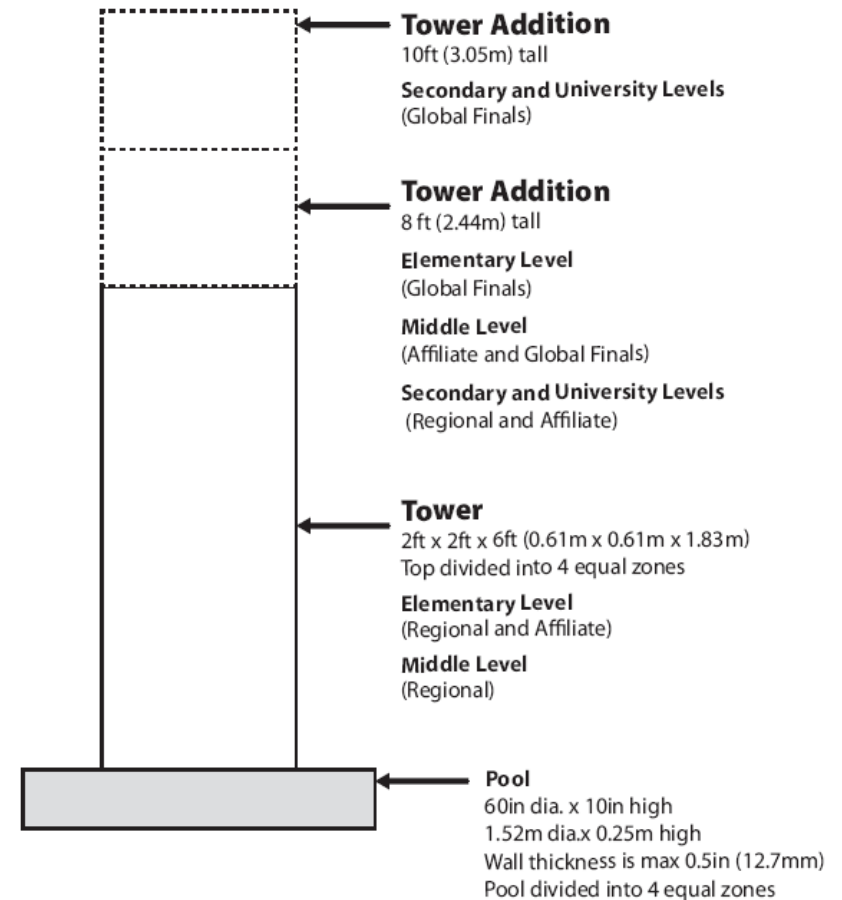
# The Equipment



- Teams will earn extra points if their Equipment is able to start and end fully contained in the team's Storage Box, with the lid fully closed.
- Team members can operate or touch the Equipment, but the Equipment must consist of more than just the team members.
- Equipment may be powered by Team Generated Power, but may earn a higher design and innovation score if it is powered by a separate Technical Energy Source.
- The Technical Energy Source must be provided by the team. It can't be external AC power from an extension cord / wall outlet.
- Materials being moved when the Equipment is in contact with the sides of the tower or supported by the tower will not earn a score.

# The Tower

- To make it more interesting the Tournament will provide a tall Tower centered in the pool.
- The Tower for Elementary Level will be 6 feet high at the Regional and State tournament and 8 feet high at Global.
- The Tower for Middle Level will be 6 feet high at Regional and 8 feet high at State and Global.
- The Tower for Secondary and University Level will be 8 feet tall at Regional and State and 10 feet tall at Global.
- The tower will be built from 2' x 2' x 2' boxes (ID).
- If the tower is accidentally moved the team must move the Tower back into position, while the clock continues to run.



## The Pool

- The tournament will provide a 60" diameter round pool, with 10" high walls. The walls will be no more than ½" thick.
- The pool at the Global competition will be filled with 6 inches of water !!
- The pool at Regional and State competitions will be empty (except the four materials mentioned earlier).
- Materials being moved while the Equipment is in contact with the sides of the pool or supported by the pool will not earn a score.
- If the pool is accidentally moved the team must move it back into position, while the clock continues to run.

# The Storage Box

- The team will provide a Storage Box with flats sides of a max outside dimension of 20" x 20" x 20".
- The team will earn 20 extra points if all the Equipment is inside the Storage Box with the lid closed at the start of the performance.
- The team will earn 20 more extra points if all the Equipment is inside the Storage Box with the lid closed at the end of the performance.
- The Storage Box can be used as a part of the Equipment.

# Materials

- The tournament will provide eight different Materials.
- Materials still touching the Equipment at the end of the performance will not earn points for movement.
- Materials placed at the Top of the Tower by the tournament:
  - ¼ inch carriage bolt, 2 to 2.5 inch long
  - Empty plastic cup of about 4 oz.
  - CD/DVD disc, approximately 4.5 inch diameter
  - Uncapped empty plastic soda bottle, approx 4" x 12"
- Materials placed in the Pool by the tournament:
  - Unopened can of food, 3 to 3.5 inch diameter, 1.5 to 2 inch high and weighing from 6 to 9 oz.
  - Golf ball, regulation size (approx 1.7" diam, 1.6 oz)
  - Flat steel washer 0.75 to 1.25 inch outside diameter with a center hole of at least 1/8 inch diameter.
  - Sponge, approx 3 x 5 x 0.75 inch.

# Time

- The team will be given eight minutes for their entire performance.
- This includes the time needed for setup, to unpack and re-pack the Equipment into the Storage Box, to retrieve wayward Materials, and to move the Pool or Tower back into place if accidentally disturbed.
- There are no extra points for finishing early.



# Technical Design and Innovation

- There are 60 *significant* points associated with Technical Design and Innovation of the Equipment. **This is 25% of the total Central Challenge score.**
- A competitive team cannot and should not ignore these points.
- Technical Design involves planning, efficiency, and reliability. How well did the intended solution work? Did it follow your plan?
- Technical Innovation involves science, engineering, and creativity. How does the solution work?
- The less direct team member involvement in Material movement, the higher the technical scores.

# Sales Promotion

## General Idea



- The team will identify an **Infrastructure** problem that requires a quick response. They will devise ways their equipment can help to resolve the problem.
- The team will create a **Sales Promotion (verbal or non verbal)** that highlights the features of their equipment and how it helps solve the problem. Basically, inform us of why your equipment is **AWESOME** and how/why it will solve the problem.
- Scoring will consider creativity of the Sales Promo and how it highlights the features of the equipment..
- The SP should explain how the features solve the Infrastructure Problem.
- Points will also depend on the integration of the movement of materials into the SP.

# The Sales Promotion

## Management Hints

- Keep the kids within the rules. If they drift towards a Sales Promotion that has nothing to do with solving the problem, ask them how they can reframe it. Don't provide the answer, but help them understand they need a different answer.
- The SP will score better if it is integrated with and has a connection with what the equipment is doing. We are not looking for two kids doing gymnastics off to the side; we are looking for an integrated Presentation.
- Encourage the team to *not* leave the SP until the last week. There are probably going to be one or two kids, even on a technical team, who are good at this; put them on it early.

# Side Trips

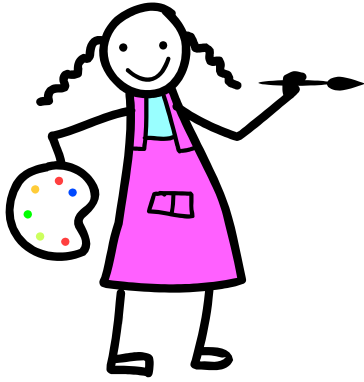
What Are *Side Trips*?



- *Side Trips* are extra items that the team wishes to present as part of their solution.
- Common Choices are artwork or backdrops, dance routines, costumes, musical performances, or creative devices that are not already being scored elsewhere.
- When any team calls Time, the entire Presentation including all Side Trips is done.

# Side Trips

## Choosing *Side Trips*



- It works best if the team selects *Side Trips* that showcase special skills that the team has, such as art or dance.
- It's not unheard of for the *Side Trips* to be selected at the last minute, but that's not ideal.
- Something that is scored elsewhere can't be entirely a *Side Trip*, but some aspect of it may. For example, the Equipment can't be a *Side Trip*, but decorations on it could be.
- The team can present up to two side trips, and the total score that can be earned is 60 points.

# Side Trips

## Optimizing *Side Trips*

- *Side Trips* are scored for Creativity, Originality, Quality, Workmanship, Effort and Integration into the Presentation.



- If the team is doing a musical *Side Trip*, Originality is very important. Playing a few bars from a well-known song has never scored very well.
- When describing the *Side Trip* on the forms, have the team be *very clear* about what they want scored. Saying “Costumes” will get every costume scored (and averaged). If the team really wants to be scored only on the sewing on the giant hamster costume scored, they need to say “the sewing on the giant hamster costume.”



# Basic Scoring

Section	Description	Total Points Available
1.a.	All equipment completely inside the Storage Box at start	20
1.b	Technical Design & Innovation of the Equipment & Power Source	60
1.c.	All equipment completely inside the Storage Box at end	20
2.a.	Materials moved to four tower zones	0, 10, 20 30 or 40
2.b.	Materials moved to four pool zones	0, 10, 20 30 or 40
3.a.	Creativity of the Sales Promotion	25
3.b.	Effectiveness of the Sales Promotion	25
3.c.	Integration of the movement of Materials into the Sales Presentations	10
4.a.	Creativity and Originality of first <i>Side Trip</i>	10
4.b.	Quality, Workmanship or Effort evident in first <i>Side Trip</i>	10
4.c.	Integration into the Presentation	10
5.a.	Creativity and Originality of second <i>Side Trip</i>	10
5.b.	Quality, Workmanship, and Effort evident in second <i>Side Trip</i>	10
5.c.	Integration into the Presentation	10
IC	Instant Challenge	100
	<b>Total Available</b>	<b>400</b>

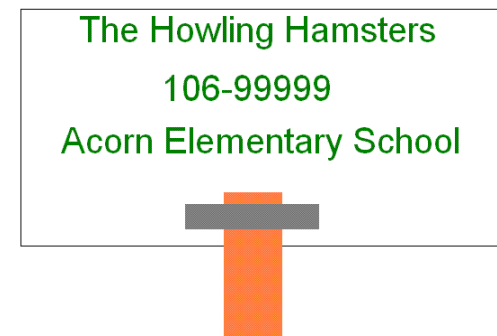
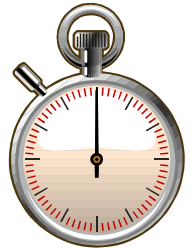
# Scaled Scoring

Scores in EACH SECTION are scaled so that the best performing team gets the full value of the section. (This is a good thing!)

- ❖ (1) Technical scaled to 100 points
- ❖ (2) Moving Materials scaled to 80 points
- ❖ (3) Sales Presentation scaled to 60 points
- ❖ (4 and 5) Side Trips scaled to 60 points
- ❖ ***Instant Challenge scaled to 100 points***

# General Constraints

- The team has eight minutes total for their Presentation, **including time needed to set up.**
- The total cost of the materials brought onto the floor and used during the Presentation is \$175. The *Rules of the Road* discuss how materials are valued, what items are exempt (safety equipment, for example), and how to fill out the *Expense Report Form*.
- Teams are limited to seven members, including anyone who has ever worked with the team on the Challenge.
- Teams should bring an *Identification Sign* that displays their team name, team number, and school, big enough for the Appraisers to see from a distance. Do not put effort into this; it is not scored; it is only to help the Appraisers find the right score sheets from the reams of paper they carry.



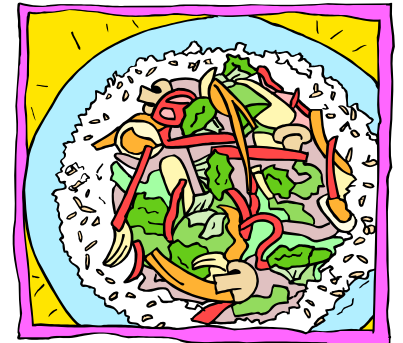
# Management Hints

- The team may have trouble figuring out how to get started. Help them break down the Challenge into pieces. Then ask them “what is the easiest way you can think of to do this piece?” Then let them build that.
- Once they have a trivial solution on the floor, they will see how it all comes together and they will have a much easier time seeing how to make it better.
- Once the team has something that solves part of the Challenge, no matter how weakly, encourage them not to destroy it until the upgraded part is complete and functional. It’s always good to have fallbacks.
- Younger children rarely come with time management skills. It is part of your job to help them organize and schedule.



# Management Hints

- Your kids will each have different skills, talents, and interests. Let them use them. If everyone hates art, maybe there shouldn't be any art in the solution.
- **Help them focus on where the most points are.** It's very easy for younger teams to get wrapped up in some part that has little or no scoring value, but completely ignore something mandatory.
- Practice on as close to a full size floor as you can.
- Practice recovering when something goes wrong.
- Take field trips to Lowe's and Home Depot
- Keep it fun. Have frequent breaks. Practice *Instant Challenge* a lot. Go out for Chinese food and see who understands the chopsticks. Go to plays.



## Management Hints

- Keep track of costs, and make sure your parents know there will be cost sharing.
- As you get to the last week, focus on mandatory items. Pace the kids during the last week. Get the forms done. The last week is always stressy; be as prepared for it as you can.
- Have someone working on the Sales Promotion, Story and performance at least a month before Tournament, and be practicing it. The first time you run through it, don't be surprised if it takes 20 minutes. It gets better with practice. And it will go faster than you ever dreamed at the Tournament.
- Your rights to critique the play and blocking and general performance are very limited. Consider videotaping a practice, having the kids watch it, and **critique themselves**. (You might cost your team points for interfering!)



# Other Rules and Information

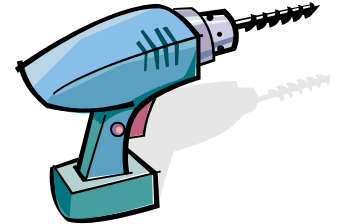
## Membership and Signing Up

- Your school needs to register with (and pay) Destination ImagiNation. Some school districts will arrange this for your team with a 30-Team Pak or a 5-Team Pak. Others will expect you to buy the membership at the ShopDI Web site. Either will also register you at the state level. Your school coordinator will help you with this.
- Your team needs to sign up as a team under that school registration. That will get you a team number. It will look like 106-NNNNN (ex. 106-22222). This is also done at ShopDI; either you or your school coordinator will do this.
- Your team needs to register with your Region. Procedures for this vary from Region to Region. Some Regions charge for this, some have their costs paid by their school system. If you don't register with your Region, there won't be a time slot for you at the Tournament.

# Other Rules and Information

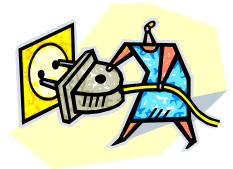
## Construction Safety and Interference

- Your team is likely to be using real tools in order to build their Equipment. These tools can be dangerous if misused.



- It is Interference for parents or Team Managers to help a team member in the act of **using a tool on their solution**, even to hold a board steady while the team member cuts. If it's not safe for the kids to use the tool, they have to find another way (Duct tape ALWAYS works!).

- It is not Interference to hover over the team member in terror while she cuts the board, ready to yank the cord out of the wall. However, it may irritate the team member.

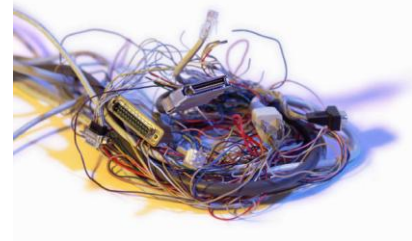


- It is not Interference to train team members on tool use, using scraps or parts that will not go into the solution. You have to train them.
- It is never Interference to stop a team member from doing something that might get someone hurt. You have to do that, its your job!

# Other Rules and Information

## Electrical Safety

- Electrical solutions to the technical Challenge are common.
- There are two primary dangers associated with electrical solutions: electrocution and fire.
- To avoid electrocution, DC circuits are limited to 28 volts, and batteries must be unmodified, spill-proof, and explosion-proof.
- Be extremely careful with large 12-volt batteries, like you find in a computer UPS. Even though they may be spill proof, if you short them they can get hot enough to explode.
- To avoid fire, DC circuits must have fuses or circuit breakers if the circuit can draw over 10 amps. A short circuit will draw over 10 amps even from tiny batteries (which will then catch fire) so wiring should be neat and well insulated. Teams with rats-nest wiring that looks to the prep Appraiser like a firetrap will have to fix it before performing.
- Remove batteries from props when storing them overnight.



# Other Rules and Information

## Clarifications

- If you have questions about this Challenge (for example, can we do this; must we do this; what happens if we do this) and it's not obvious from the Challenge text, your team should seek a Clarification.
- When you register your team at ShopDI you will get the necessary materials for submitting Clarifications.
- You will get a fairly rapid response (24-48 hours) over e-mail. Your answer will not be shared with other teams.
- You may ask up to 10 Clarifications, and you must ask by February 15, 2010.
- Bring your Clarifications to Tournament with you.
- Check the IDODI website often for Published Clarifications that apply to all teams. These happen when many teams ask the same question.



# Other Rules and Information

## *Instant Challenge*

- It is very common for *Instant Challenge* scores to determine who “wins” the Tournament. Often several teams have almost the same technical scores, and the team with the best IC score comes out ahead.
- If possible your team should practice *Instant Challenge* every time they meet. That probably won’t always happen, but do IC as often as possible.
- **Don’t skip an IC practice because you think the example is too crazy. Instant challenges are notorious for being crazy! Be prepared. Practice using different materials.**

# Tournament Forms

- In the days before the Tournament, your team will prepare the *Tournament Data Forms*. These forms tell the Appraisers how to award points to your team and should not be left until the night before.
- Team members should provide the words for the forms. If Elementary Level team members cannot write or type legibly, the Team Manager may transcribe for them.
- Losing the forms and having to redo them at Tournament is very stressful, so we recommend making an extra copy of the forms and giving the extra to a reliable team member or parent.
- Form blanks found in the Challenge and in *Rules of the Road*



# Tournament Forms

## Declaration of Independence

- A team's assertion that there was no Interference (or confesses to it, if there was)
- Signed by all team members and Team Managers.
- You can sign "dropped" for former team members who have left the team.
- Need one copy for *Team Challenge* and one copy for *Instant Challenge*.

**Declaration of Independence**  
YOUR TEAM MUST BRING TWO COPIES OF THIS FORM TO EACH TOURNAMENT.

Membership Name & Team Name \_\_\_\_\_

Team Number: \_\_\_\_\_ Level: EL ML SL UL

Team Challenge \_\_\_\_\_

Sponsoring School/Organization (if not 1-Team Pak membership): \_\_\_\_\_  
Please print and sign names of all team members participating in today's Presentation. Team members who contributed to the solution but who are unable to attend today's performance should also be listed. (Their signature is not necessary.) Please note the reason for their absence on the signature line.

1. Name: \_\_\_\_\_ Grade/Age: \_\_\_\_\_  
Signature: \_\_\_\_\_

2. Name: \_\_\_\_\_ Grade/Age: \_\_\_\_\_  
Signature: \_\_\_\_\_

3. Name: \_\_\_\_\_ Grade/Age: \_\_\_\_\_  
Signature: \_\_\_\_\_

4. Name: \_\_\_\_\_ Grade/Age: \_\_\_\_\_  
Signature: \_\_\_\_\_

5. Name: \_\_\_\_\_ Grade/Age: \_\_\_\_\_  
Signature: \_\_\_\_\_

6. Name: \_\_\_\_\_ Grade/Age: \_\_\_\_\_  
Signature: \_\_\_\_\_

7. Name: \_\_\_\_\_ Grade/Age: \_\_\_\_\_  
Signature: \_\_\_\_\_

Please circle **True** or **False** for each statement below. If you answered **False** to any statement, please explain in the space provided below. A deduction may need to be assessed in order to be fair to teams that did not receive help.

TRUE FALSE We understand the rules of Interference.

TRUE FALSE The research, ideas, and solutions for our Team Challenge Presentation are those of **ONLY** the team members signed or listed above.

TRUE FALSE All team members who worked on our Team Challenge solution are listed above.

TRUE FALSE **Please do not circle until you arrive at Instant Challenge.** We do not know anything about the Instant Challenge we will be given at the Tournament.

\_\_\_\_\_

\_\_\_\_\_

To the best of my/our knowledge, the above statements are true. In addition, I/we certify that all elements of this team's solution, including chemicals, will be handled and used safely and not cause harm to individuals or the facility.

Team Manager Signature \_\_\_\_\_ Date \_\_\_\_\_

Team Manager Signature \_\_\_\_\_ Date \_\_\_\_\_

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## Tournament Forms – Tournament Data Forms

- This form is in the Challenge. It is a two page form.
- The team should describe their two *Side Trips*, and very clearly state what they want to be scored on.
- The team should describe the requested elements of their solution very specifically, especially info about the Story. It can be very hard sometimes for the Appraisers to hear a young team who is speaking quietly, and the more information we have the more points we can find for them.
- If the Appraisers don't understand, they will visit the team before the Presentation and ask them to explain.
- Please bring five copies of this form. Single-sided is preferred.

# The Tournament

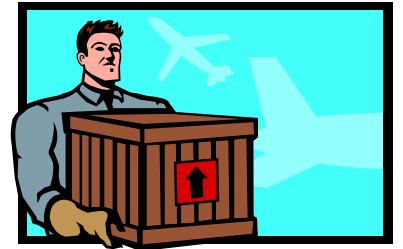
## Before The Big Day

- Get your forms done and copied (5 copies each)
- Prepare a crash kit with essential tools and spare parts, in case something breaks during the trip (It always does!)
- Make sure you know where you're going and how to get there
- Make sure your parents and grandparents know where they're going, how to get there, and what school and Challenge they need to look for inside the school (Challenges A, B, C, D, E).
- Make sure you know how each team member is getting to the school. You will be happiest if you meet them before travel and you travel in a convoy.
- Pack the cars the night before.
- Don't let them stay up all night finishing stuff, unless they're high school.



# The Tournament Arrival

- Plan to be at the school an hour before your Presentation, at least. An hour and a half to two hours is always better.
- You may want to drop props at the curb (with a parent guard) then go find a parking place.
- Figure out how to get to the Presentation site before you start parading props through the building.
- Parents can carry props! Give them something to do!
- Find a convenient piece of hallway to set your props down.
- Have the kids check over the props and make any repairs needed.



- Adults should not be seen with tools, brushes, makeup, sewing needles, or anything else in hand relating to the challenge solution, props, costumes, etc. Any aspect of the challenge solution, no matter how small, but be taken care of by team members ONLY. Tournament officials will be walking the halls on tournament day, and interference point deductions will be given for parental interference.
- Deal with snacks, restroom runs, and the schedule only.

# The Tournament

## Check-in

- About 20-30 minutes before Presentation time, the Prep Area Appraiser will be looking for you. Be findable or you may miss your presentation time. Trust us, it has happened!
- The Appraiser will invite you to bring your props to his check-in table. Parents can still carry!
- Give the Appraiser your forms.
- The Appraiser will engage the kids in conversation and try to help them be as loose as possible.
- When the previous team finishes, the Appraiser will “walk the floor” with the team, and then have them take their stuff to the Launch Area. At this point adults will be dismissed to their seats, and should take any materials that will not be needed in the performance such as tool boxes.

# The Tournament Performance

- The Challenge Appraisers may visit with the team if they have questions about the forms.
- The Timekeeper/Announcer will visit with the team to discuss photography and video taping, and how they want to be announced.
- The Timekeeper/Announcer will announce the team, ask if they are ready, and tell them to begin.
- The team then has up to eight minutes to get their stuff onto the site, present their solution, and perform their skit.
- The Timekeeper/Announcer will call *Time* after eight minutes.



# The Tournament

## After the Presentation

- The Challenge Appraisers will talk with the team about their solution for two or three minutes. It's helpful if the team knows this will happen, and knows which team member is best qualified to talk about what item.
- When the Appraisers are done, parents should come down and help the team remove the props.
- Raw Scores will be available as soon as possible after the Presentation, but rarely sooner than an hour. There will be a sign for what scores are ready for which team.
- Do not destroy your props, even if you hate them, until after the Closing Ceremony; teams often do much better than they think they did, even if there is a major malfunction.

