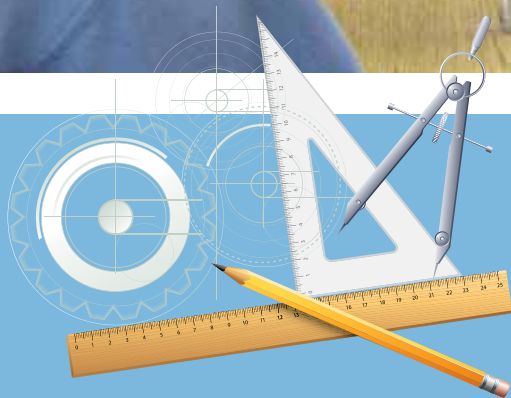




Mother Daughter  
Technology  
Engineering  
Aptitude Event



**EVENT PLANNING TOOLKIT**  
Overview and Guidelines for a  
Safe and Successful Event.



Participants get acquainted during an opening activity.

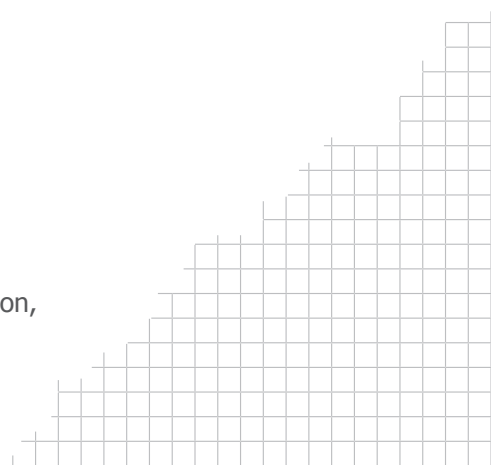
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Washington State Department of  
**Labor & Industries**

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## An Overview

The Mother Daughter Technology Engineering Aptitude (TEA) event provides middle school girls with a tremendous opportunity to interact with an engineering professional to learn about valuable, high-wage opportunities in the engineering industry. The Mother Daughter TEA event was founded to encourage young women to take interest in pursuing a career in the engineering industry.

The engineering industry is facing a severe shortage of skilled young talent. In an attempt to fill open positions and careers, Mother Daughter TEA event exposes girls to the engineering industry and the skills involved. Local students from the nearby and surrounding communities are invited to participate in this one day event.

After an introductory orientation, mothers and daughters are grouped into teams with other girls to applying the skills, tools and imagination required to become a successful engineer. Participants discover the many dimensions of engineering that are available and its vast career opportunities. The Mother Daughter TEA event successfully engages young women with the engineering industry, providing options for a transition into challenging classes and life-changing pursuits.



The session leader oversees hands-on activity progress.

# The Big Four

Listed below are the key components for your TEA event.

## Session Leader

Ideally a female engineer is designated as a session leader. This person can enthusiastically lead students and mothers/guardians to demonstrate the exciting opportunities available in the engineering field. Typically, the session leader begins with an overview of the multitude of skills, talents and interests that can be applied to engineering. Guiding participants through the presentation, a session leader engages participants with videos, contests and hands-on activities.

## Hands-On Activities

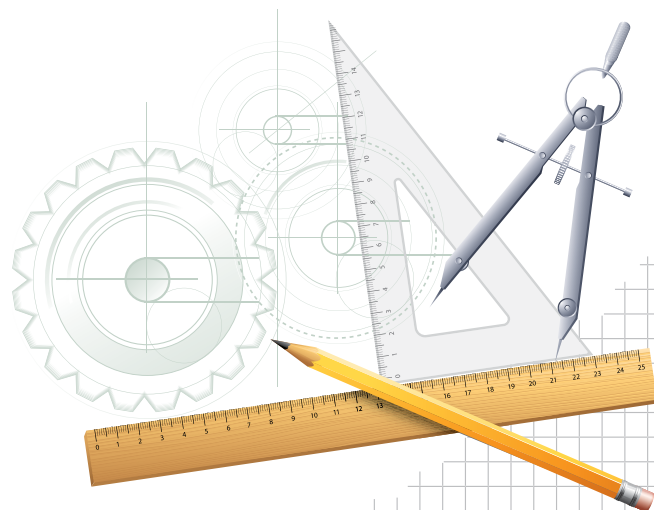
Hands-on activities take complex engineering concepts and transform them into comprehensible fun projects. The activities challenge participants to build a structure of drinking straws and paper clips, or to make a hovercraft using nothing more than a balloon, a CD, masking tape, pipe cleaners and plastic rings. Students learn practical applications of engineering concepts. For example, the session leader can introduce UV-sensitive beads engineered to change color as sun exposure increases, alerting individuals to the over exposure of UV radiation. By incorporating activities involving entire groups working together to achieve a common goal, participants recognize the importance of team-building skills in engineering.

## Morning Refreshments

Upon arrival, participants sign in and are provided with refreshments of coffee, water, juice and snacks. This allows participants to interact and socialize before the event begins. Lunch is a fundamental component to the success of this event. Lunch can be catered or kept cold and accompanied by drinks, and is served midway through the event. Later, large portions of desserts such as brownies or cookies are provided. These sweets are a major component to the event and portions should not be underestimated.

## Promotional Take-Aways

Industry information should be practical and fun with promotional take-away items such as water bottles, T-shirts and books. Other engineering-related items can be awarded as prizes during hands-on activities' and group contests.



# Timelines & Guidelines

The Mother Daughter Technology Engineering Aptitude (TEA) event is a one day event allowing for flexible dates and timelines. Doors open at 9 a.m. for sign in and morning refreshments. The event begins around 10 a.m. a.m. and runs until 2:00 p.m. Request an early arrival from all participants to ensure prompt registration, typically before 9:30 a.m. During the first half of the event students are presented with fun information and hands-on activities familiarizing participants with engineering components and concepts. Midway through the event, lunch is served. During the second half of the event, more hands-on activities and a group projects are introduced. At the end of the event, participants are given promotional take-always and prizes and an evaluation of the event can be filled out at this time (or during lunch) by participants.

## The following is a typical agenda:

- 9:00 – 9:45: Doors open, sign in, introductions & engineering career talk
- 9:55 – 10:45: Hands-on activity
- 10:45 – 10:55: Break
- 10:55 – 11:30: Group activity involving all students (Moms/guardians watch and encourage)
- 11:30 – 12:00: Lunch – Video presentation
- 12 – 12:50: Hands-on activity
- 12:50 – 2:00: Wrap-up, questions and promotional take-always

The coordination of a session leader and volunteers in order to provide fun and interesting activities for a large (typically about 60-80 persons, including parents/guardians) amount of participants can be overwhelming. Below are tried and tested resources to assist in creating your own Mother Daughter TEA event. The link provided below is a sample timeline, developed after a two years of putting on the event. For a first time event, you may want to start planning a month or two earlier.

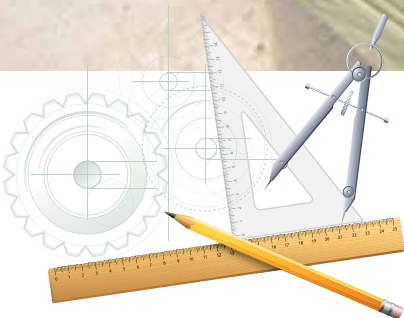
## Timeline

Click on the icon for a complete timeline on how to plan this event.

## Little Black Book

Click on the icon for additional information about **forming a committee, working with volunteers, collaborating with educators and site selection.**





## Activities & Events

Activities and Events provide students with the opportunity to perform problemsolving, engineering-related skills and functions in a hands-on environment.

### Videos

One or two videos can be shown to visually highlight the many projects future engineers can undertake. These provide participants with a greater understanding of what engineering is, its applications, associated skills and the wide range of fields to which it is useful. Organizers may need to arrange for appropriate sound equipment (audio-visual, microphone, speakers, etc.).

### Hands-On Activities

These activities will vary but ultimately should inexpensively introduce participants to the world

of engineering in a creative environment. Hands-on activities challenge participants to combine problem solving skills and creativity applying them to the engineering field.

### Career Information

The session leader should explain the numerous opportunities available in the field. Such opportunities can range from basic architectural construction engineering to the designing of perfume bottles to shoe design as well as forensic and medical engineering. All companies employ engineers, however, some interesting companies include Pixar, Nike, Industrial Light & Magic (LucasFilms), Mattel, Hasbro, Sony, Nintendo and Apple.

# Get the Word Out

Newsworthy press release leads to great publicity that can be used in community relations efforts. Positive media coverage is a direct result of press releases sent to local media outlets. Unique in origin, Mother Daughter Technology Engineering Aptitude (TEA) event can peak the interest of local media and solidify coverage of the event. A simple story with digital hi-resolution (300 dpi) photos covering the event's background and purpose should be presented in person or sent directly to editors of local newspapers, magazines, TV, and radio stations. Attempt to schedule reporters and news organizations for the event. Oftentimes, the appearance of political figures and other significant persons in the community can create incentive for coverage. Publicity of smaller local media such as school papers and community cable channels should not be overlooked. It is best to send press releases and other information to a specific someone rather than the general front desk.

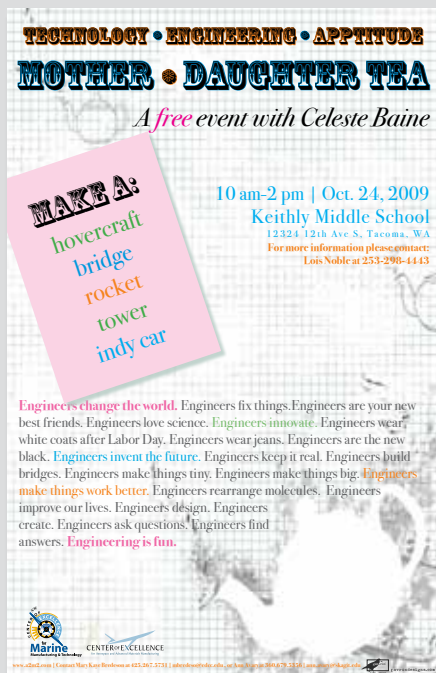
The following are two main forms (permission slip and media consent form) required by Washington state for an event such as Mother Daughter TEA Event. Both forms must be signed and returned to workshop organizers. Each state may have additional requirements for this event. The links below also provide helpful posters and articles.

## Permission Slip

Click on the icon for an example permission slip.

## Media Consent Form

Click on the icon for an example media consent form.



## Event Poster

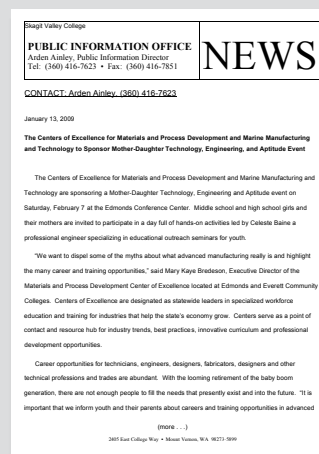
This link provides a successful Mother Daughter TEA event poster of a previous event. Ensure these are readily available. Posters advertise the event to students and are also useful in solidifying prospective sponsorship.

## Sample Poster

Click on the icon for a sample Event Poster.

## Articles

Positive media coverage should be used for promotion in future events. Ensure there is plenty of media coverage at this event.



## Sample Article

Click on icon for a sample article.

*Special Thanks to:*



Production Team: Brynn Knudsen, Kodi Meador, Paul Warner

*For more information on Mother Daughter TEA event please contact Mary Kay*



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