



## Entertainment Technology

Discover the science behind the world of entertainment. Use your imagination to create animated artwork and special effects. Dig into video game development, surf a sound wave, and take a ride into the science of amusement park rides. See how much fun you can have working in the entertainment industry. Badge included. Girls complete majority of steps.

**Program Grade Level:** Girl Scout Junior

**School Grade(s):** 4–5

**Program Duration:** 2 hours

**Optimal Setting:** Classrooms and computers

**Optimal Group Size:** 30–100

**Program Portfolio Links:** Science, Technology, Engineering, and Math

**Award Requirements Met:** Steps completed to earn Entertainment Technology Badge

**Outcome Indicators:**

- |   |  |
|---|--|
| <input type="checkbox"/> Girls develop strong sense of self                     | <input checked="" type="checkbox"/> Girls gain practical life skills |
| <input checked="" type="checkbox"/> Girls seek challenges in world              | <input type="checkbox"/> Girls develop healthy relationships         |
| <input checked="" type="checkbox"/> Girls promote cooperation and team-building | <input type="checkbox"/> Girls can resolve conflicts                 |
| <input type="checkbox"/> Girls identify community needs                         | <input type="checkbox"/> Girls are empowered to make a difference    |

## Program Overview

Time Allotment for Activity	Activity	Materials Needed
15 Min	Welcome and Introductions	<ul style="list-style-type: none"> <li>• Internet safety pledge</li> </ul>
30 Min	Activity #1: Put your animation into motion <ul style="list-style-type: none"> <li>• Thaumatrope</li> <li>• Youtube videos: Pixars zoetrope; multiplane Disney camera; Brave, behind the scenes</li> <li>• Flipbooks</li> </ul>	<ul style="list-style-type: none"> <li>• Internet access</li> <li>• Pencils</li> <li>• Post-it notes</li> <li>• Notecards</li> <li>• Tape</li> </ul>
40 Min	Activity #2: Ragin' Roller Coasters <a href="http://gsrv.gs/1UCLwBx">http://gsrv.gs/1UCLwBx</a> <ul style="list-style-type: none"> <li>• Front seat view videos of coasters</li> <li>• Design your own gamesgames.com</li> </ul>	<ul style="list-style-type: none"> <li>• Internet access</li> </ul>
15 Min	<b>SNACK</b>	<ul style="list-style-type: none"> <li>• TBD (small snack+ juice)</li> </ul>
40 Min	Activity #3: SFX aka Sound Effects <ul style="list-style-type: none"> <li>• Write your own story and add sound effects</li> <li>• Use different household objects to make different sound effects</li> </ul>	<ul style="list-style-type: none"> <li>• Internet access</li> <li>• Paper + pencil</li> <li>• Various household items for making sound effects</li> </ul>
30 Min	Activity #4: Make-Up artists <ul style="list-style-type: none"> <li>• Learn about make-up artists +make face paint</li> </ul>	<ul style="list-style-type: none"> <li>• Make-up sponges</li> <li>• Solid shortening</li> <li>• Cornstarch</li> <li>• Food coloring</li> <li>• Small paint brushes</li> </ul>
10 Min	Closing	

**Possible Adaptations (special needs, materials, etc.):**

If you are not able to access the internet, you could download the videos mentioned above onto a flash drive and use pre-recorded sounds for your sound effect activities. For Ragin' Roller Coasters, you could supplement the activity by having girls build and design their own coasters with provided materials.

**Notes to the Facilitator:**

It is very important for all girls to sign the internet safety (at the end of the packet) pledge and to remind them they are there to complete their Entertainment Technology Badge and should not be on the internet for their own purposes. Additional adults to help monitor computer usage is recommended.

## Activity #1: Put Your Animation into Motion

### Background Information:

Animation goes back decades and has progressed with the help of computers. Girls will view a video that shows how animation was first viewed followed by a video that shows how films such as Bambi were made. They will then watch a short clip on new Pixar computer animations.

Time Allotment: 30 minutes

### Prep Needed:

- Internet access or download videos ahead of time for viewing
- Gather materials and supplies

### Materials Needed:

- Internet access; Youtube videos: Pixar's Zoetrope, Walt Disney Introduces the Multiplane camera; Brave. Behind the scenes look at Pixar Studio
- Pencils
- Post-it notes
- Notecards
- Tape

### Steps:

1. Have girls find their own computer if possible and locate the YouTube website.
2. In the search box they will search for Pixar's Zoetrope and view the video. Follow up with discussion questions:
  - a. Have you ever heard of a zoetrope?
  - b. Did you know you can make your own animation using a flip book?
  - c. Has anyone ever tried it?
3. Now girls will search for the Youtube video titled, Walt Disney Introduces Multiplane camera to see how animated movies were once made. Follow up with discussion questions:
  - a. What did you learn in this clip about the way old animated films were made?
  - b. How do you think they are made now?
4. Girls will now search for a Brave. Behind the scenes look at Pixar Studio. Follow up with Discussion questions:
  - a. Do you think animation is harder or easier now?
  - b. Has anyone seen an old Disney movie? If so what are the differences?
  - c. What is your favorite animated movie?
5. Give girls supplies to make their own thaumatrope.
  - a. Directions for thaumatrope:
    - They will draw one image on one notecard, for example a bird.
    - On the other card they will draw a cage in the same spot.
    - They will then tape them back to back, images facing out.
    - Slide a pencil in the middle of the two cards and secure with tape.
    - When you spin the pencil between your palms the bird appears to be in the cage.
6. Hand out a pack of post-its per girl. If there is time girls can begin to draw their own flipbook animated story. If time is passed have girls take home the post-its to work on in their own time.

## Activity #2: Ragin' Roller Coasters

Background Information:

Time Allotment: 40 minutes

Prep Needed:

- Internet access
- Gather materials and supplies

Materials Needed:

- Computer access for each girl if possible

Steps:

1. Girls will visit [learner.org](http://learner.org) and explore the information on the website for 15 minutes.
  - a. Questions to answer after 15 minutes: (post these so girls have an idea of information they should be absorbing)
    - When did roller coasters first appear?
    - Where was the first roller coaster built in the United States?
    - Does a roller coaster have an engine that makes it move?
    - What other information related to roller coasters can you find and share with the group?
    - Has anyone in the group ever been on a roller coaster, or want to someday?
2. After discussion girls will return to [youtube.com](http://youtube.com) and search "roller coaster front seat hd." Girls will choose 1-2 roller coaster videos to watch. They can choose any coaster from anywhere around the world, or maybe they want to try one from Valley Fair. Afterwards discuss as a group how it felt to view the videos from their stationary chair and if they think they would like to ride it for real.
3. Girls will then have a chance to design their own roller coaster and see how it all works by visiting the website [gamesgames.com/game/rollercoastercreator.html](http://gamesgames.com/game/rollercoastercreator.html). Girls will follow the directions to build a coaster.

## Activity #3: SFX a.k.a. Sound Effects

Background Information:

Time Allotment: 40 minutes

Prep Needed:

- Internet access if possible
- Gather various household materials to use for possible sound effects

Materials Needed:

- Internet access and one computer per group
- Paper
- Pencils

Steps:

1. Break into small groups of 2–4. Have groups spread throughout the room if possible to have computers away from other groups.
2. Groups will google [netrover.com](http://netrover.com) + sound effects and click on the first link: <http://gsrv.gs/1P6v1Kf>
3. Have each group experiment with the different sound effects for a few minutes.
4. Groups will have 10 minutes to come up with a short story that includes sound effects. The story can be about whatever they wish but should last approximately 2 minutes. Girls should take turns using the sound effects.

5. One person will need to write their story down. Remember to list when a sound effect needs to happen in order to cue the sound person. A good recommendation is to have each sentence on a separate line.
6. When groups have finished they will share their short stories with the whole group.
7. After each group has shared their story bring out the different household items. Give each group 1-3 items and have them determine what sounds the object might be able to replicate for a background noise. Example: Ripping apart Velcro makes a loud ripping noise. Or crunching corn flakes can sound like walking through leaves; see what they can come up with based on your objects.

#### **Activity #4: Make-Up Artists**

Background Information:

Time Allotment: 30 minutes

Prep Needed:

- Gather materials and supplies

Materials Needed:

- Internet access
- Make-up sponges
- Solid shortening
- Cornstarch
- Food coloring
- Small paint brushes

Steps:

1. Have girls pair up and answer the following questions: (they may search on the web for answers):
  - What does a make-up artist do?
  - What type of schooling/education does a make-up artist need?
  - What are some job opportunities a make-up artists have?
  - How much does a make-up artist get paid?
  - What type of special effects do make-up artists perform or help others achieve?
2. Have girls discuss answers with whole group.
3. Now girls will make their own face paint using all natural ingredients. They will then have the opportunity to stencil on an image if they wish onto their partner's cheek. Directions for face paint:
  - Mix 2 Tbsp shortening and 1 Tbsp cornstarch together in a small bowl until smooth.
  - Add 4-6 drops of food coloring. Mix until the color is evenly blended.
  - Apply face paint to cheek using desired stencil.
  - Remove paint with soap and water.



### Girl Scout Internet Safety Pledge: for All Girl Scouts

- I will not give out personal information such as my address, telephone number(s), parent's or guardians' work address/telephone number(s), and the name and location of my school without the permission of my parent or guardian.
- I will tell an adult right away if I come across or receive any information that makes me feel uncomfortable.
- I will always follow the rules of Internet sites, including those rules that are based on age of use, parental approval and knowledge, and public laws.
- I will never agree to get together with someone I "meet" online without first checking with my parents or guardians. If my parents or guardian agree to a meeting, I will arrange it in a public place and bring a parent or guardian along.
- I will never send a person my picture or anything else without first checking with my parent or guardian.
- I will talk with my parent or guardian so that we can set up rules for going online. We will decide on the time of day that I can be online, the length of time that I can be online, and appropriate areas for me to visit. I will not access other areas or break these rules without their permission.
- I will not use the Internet to collect money for Girl Scout products, and I will follow all safety guidelines related to Girl Scout product sales.
- I will practice online "netiquette" (good manners) at all times when online.
  - ✓ I won't spam others.
  - ✓ I will not bully nor will I tolerate bullying (and I will always tell a trusted adult if this is a problem).
  - ✓ I won't use bad language.

I will be guided by the Girl Scout Promise and Law in all that I do online.

Signed,

**Girl Name** \_\_\_\_\_ **Date** \_\_\_\_\_