



## 2020 State Contest

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### **3-D ANIMATION & VISUALIZATION**

#### **Description**

This is a two-person event that produces high-quality images and an animated short subject using 3-D computerized images. A practical visual design problem will be given, the scope of which should be viable within the 4-6 hour time limit.

*Note: Please check the SkillsUSA National website for updated contest information and the SkillsUSA National Technical Standards*

- [SkillsUSA Championships Technical Standards](#)
- [Contest Updates](#)

#### **Clothing Requirements**

Contest Specific: Class E - Casual Attire

Official Attire for Men:

- Official SkillsUSA white polo shirt
- Black dress slacks (accompanied by black dress socks)
- Black dress shoes

Official Attire for Women:

- Official SkillsUSA white polo shirt
- Black dress skirt (knee-length) or black dress slacks
- Black or skin-tone seamless hose
- Black shoes

[Clothing Classifications](#)

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### **Knowledge Performance**

The contest will include a written exam that can be completed as a team. The test will be based on the National Standards. Areas to be tested and should be understood are soft body dynamics, textures, lighting, HDR use, polygon mesh, character rigging, color gradients, UV maps, modifiers, projection methods, tessellation, bit color information, and storyboarding.

### **Skill Performance**

A practical visual design problem will be given and will consist of a topic to communicate, its context and target audience, a rough script to follow, and an emotional or graphical effect that should be illuminated in the still and animated output.

### **Contest Guidelines**

The contest will be broken into four portions: modeling, texturing, lighting, and animation. The contestants must show their planning through sketches of orthographic views and a simple storyboard showing the three models interacting with each other.

Contestants will be modeling 2 to 3 related objects and texturing them. For the texturing, you must have one of your objects primarily metal, one primarily organic, and one primarily other (glass, plastic, etc.). This is to show the mastering of materials on objects.

You need to light the scene with at least 3 point lighting setup (fill lights, keylight, backlight). You may choose to light with higher-level lighting such as Final Gathering or HDRI but remember that though these will give you a much nicer looking final shot, they dramatically increase render time. You should include shadows if your render times allow.

You will be animating the three objects interacting with each other for 15 seconds. Remember to plan for render times so that you get the best possible 15-second shot you can. The 15-second video of your animation must be exported at 720 x 405 using AVI or MOV format at 24 fps.

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Complimentary props may be needed to complete your scene. Use them only to accentuate your scene and do not make unnecessary elements that will slow down your render times. The fewer the objects, the faster the render. The more minimal the lighting, the faster the render.

Note: Judge the time you have left by testing a single frame render time. If a single frame takes 1 minute then 30 frames will take an average of 30 minutes.

### **Equipment and Materials**

#### **Supplied by the contestant**

1. Personal computers, monitors and input devices. Contestants may use any brand or type of personal computer from any source. The software must be preloaded and configured. Contestants should test the system carefully prior to the competition.
2. Contestants may bring the software of their choice. A software package(s) must be capable of producing both 2-D and 3-D renderings and animations.
3. Paper and supplies for storyboard development.
4. All competitors must create a one-page resume and submit a hard copy to the technical committee at orientation. Failure to do so will result in a 10-point penalty.
5. USB flash drive
6. Three 24" x 36" sheets for concept art and storyboard layout

#### **Supplied by SkillsUSA**

Space or practical development

Electrical outlets

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