



Theatre Masks

Completion time: 3 Lessons

Materials and Resources:

- Pencil, paper, a ruler, acrylic paint, adhesive tape, scissors
- Sheet foam material approx. 4cm thick (e.g. building /construction insulation foam)
- Appropriate hand and/ or machine tools to shape materials
- Aluminium tape, or aluminium kitchen foil, a sharp blade (e.g. Stanley knife)
- Formech vacuum forming machine, suitable vacuum forming plastic material (HIPS or ABS produces rigid results, and PE foam makes for soft and pliable results)
- <https://formech.com/case-studies/formech-the-english-national-opera-2>

Skills at a glance:

Mathematics

Measurement

Language

Discussion, reading, listening

Thinking skills

Design, expression, applied knowledge, material selection, independent thought, and questioning and reasoning

Science

Heating plastics and effects, plastic/ polymer material knowledge, and the reaction of certain materials when exposed to heat

Project Outline:

Students are to make a theatrical mask, for use within drama or dance productions, Music, or English Literature classes. Using foam as the mould material, students can create either a full or partial face mask with a certain book, play, character, or style in mind. This project is ideal for theatrical students to learn essential skills and aspects of both prop and set design, or design and technology students alike. There is scope for cross-subject learning encompassing various different classes and disciplines, and for the project to be completed by individual students, pairs, or small groups.

Method:

Students must first measure the face of the individual who will be wearing the mask, and make note of where within these measurements the eyes need to be positioned. At a scale of 1:1, students may now design their mask, adding more detail and considering facial features, such as the nose and mouth.

To make the mould, a thick piece of foam can be shaped by hand, machine, or indeed hot wire cutting apparatus into the desired shape. Students can draw directly onto the foam itself to produce guidelines and dimensions.

Patience is key at this point to ensure that the material is cut rather than torn.

As the mould begins to take shape and smaller detail is to be added, smaller tools and slower speed will produce best results.

Once the mould is complete, it will need to be prepared for the vacuum forming process. Using aluminium tape, or simple aluminium kitchen foil, cover the entire mask with a smooth layer of foil, using the thumbs to shape and push the material over the mould.

This completed mould can now be vacuum formed. When doing so it is advisable to tape the mould to the table of the forming area, as due to its light weight it may move during the vacuum forming process.

The vacuum formed mask can now have excess plastic material trimmed off, and any eye or mouth holes made.

The completed mask can now be decorated using acrylic paint, or other craft materials to complete the design process, and get it ready to be worn on stage.



Homework Tasks:

This project due to its size and level of detail, might take a number of lessons. Teachers can reduce the amount of lessons by allocating a degree of the research, design or drawing as homework activities. To aid students in the design process, and to develop their understanding of vacuum forming and its application in the performing arts and film production, students may find examples of the technology being used on screen. Using DVDs, online videos or streaming services, students must look at movies and/or TV shows which involve masks and find examples of vacuum formed pieces of costume.

Optional Extras:

As this project draws upon artistic subjects, there is scope to tie the production of masks in with school productions or plays. Not only can students and teachers from Drama and Music classes use this project plan as part of their own learning and to create their own masks, but Design and Technology students can create these masks on behalf of productions and plays too. There is scope for Drama and Music students to design the masks based upon their needs, and for students in a Design and Technology class, using these designs, to produce masks on their behalf. This requires students to interpret designs for manufacture using the vacuum forming process. This encourages cross-subject learning, sharing of information, teamwork, and working to design briefs set by third parties. These are a number of hugely beneficial skills for students to further develop.

Student Accomplishments:

- The production of a custom theatrical mask for use within a school production or reading
- Utilise and demonstrate a variety of different skills and tools within the workshop
- Understand the potential of foam as a principal material
- Practical hands on experience using a vacuum forming machine, and understanding its wider application
- Interpret a design brief accurately and creatively
- Conduct research and development

Teachers notes:

Share pictures and videos of your Formech project across social media, using [#formechmade](#)

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