Creating Costumes & Props from Foam & Paper

and

Creating Special Effects

By: Tim Withers
Shakespeare Plays That Need Medieval Costumes

Royalty free plays that meet requirements for English and Literature. Great for student plays and video productions. Here are some good examples below:

1. Romeo and Juliet
   Definitely a great play to introduce William Shakespeare to students. They enjoy the love story and pine over the tragic ending.

2. Hamlet
   Brooding, depressed, self-absorbed: terms to describe Hamlet or the teenage years? The themes of this play touch on some important topics for adolescents and adults.

3. Julius Caesar
   Taught in connection with Roman history, Julius Caesar is much more than dry historical drama. Students enjoy the political maneuvering and never forget the 'Ides of March'.

4. Macbeth
   Can Lady Macbeth get the blood off of her hands? Mixing the supernatural with treachery, death, and deceit, this play is sure to please.

5. A Midsummer Night's Dream
   Due to a recent movie starring many stars, this play has rebounded in popularity. Students enjoy the buffoonery of the peasant characters and the interplay of the lovers with each other.

6. Othello
   Shakespeare's play about a moor who while he loves his wife Desdemona is easily swayed into jealousy by his friend Iago. A great way to begin interesting moral discussions with students.

7. Taming of the Shrew
   This choice has become much more popular since "10 Things I Hate About You" was released a few years ago. Students will enjoy the humor and the intrigue.

http://712educators.about.com/od/shakespeareswork/tp/shakesplays.htm
No Money No Problem: What Was Made With Some Foam and a Little Luck

Stuck with the problem of having to find an alternative to using real swords, I learned that it was hard to find cheap replacements. Plastic ones could still be used to hit and hurt, and rubber swords that could be bought online were expensive. So I improvised and created a foam sword that would hold up to swordplay and yet be fairly harmless. This sword is a cross between the swords that people use for medieval mock battles and those that are for decoration. The project the students wanted to do called for having a person wearing medieval gear. A medieval costume can easily cost around $500 for anything with much detail. So I thought I might as well try and make a medieval suit of armor out of foam as well.
Creating A Short Movie About
King Arthur

I really enjoyed reading about King Arthur as a kid so when students in my video production class asked me about creating a medieval knight movie I was ready to pitch to them the story of King Arthur. The whole class helped in the creation of the King Arthur outfit. Here is the movie, hosted on the KET School Video Project website.
This movie also made use of special effects. I used a program from a company located at fxhome.com. The program used is called DV Alam2. This is a very old program and they make much better now. I also own their later programs called: Fxpro, and Composite Lab Pro.
Excalibur's blade glows magically! Note I used DV Alam2 to create the glow.

Sound effects were used to make the swords “cling” when in battle.
Actors had to pretend another actor was throwing a huge blue ball of ice at them. The blue ice ball was added in post after the program was edited together.

Over the shoulder back and forth angles were used to create the look of a real movie.
The King Arthur costume is meant to represent the time of the fall of the Roman Empire. Its style suggests that of a Roman Centurion. I was very inspired by the movie *King Arthur* with Clive Owen.

It is thought that King Arthur might have lived around the 12th century. This would have placed him before the Middle Ages but late in the Roman Empire. This would make his armor less like that seen in the movie *Excalibur*, and more like armor seen on a Roman general.
King Arthur Costume Parts

All of the main parts of the King Arthur Armor are made of blue camping foam.

What look like buckles are just decoration. The parts are held on with Velcro straps that secure at either end.
Here is a picture of the skirt. It is made of strips of “Foamies” overlapping each other around a blue foam belt. The parts are held on with small paper fasteners. The Foamies strips are painted brown with spray paint outdoors and then little black paint was added. The belt is also painted black with spray paint. It is attached to the wearer via Velcro straps in the back.
This is the main part of the King Arthur armor. The chest plate is seen here taken apart.

The first picture shows my foot on the back of the armor, shown in two pieces. This gives it more freedom of movement. It will allow the person wearing it to bend backwards. The second photo from your left shows my foot for scale standing on the inside front of The armor. You can clearly see the pieces of tape holding down paper fasteners. The straps That hold the Velcro fasteners are also visible.
You can see where front and back meet, and where the wearer puts his head through.

We found that a dip between the back and front is needed for a person to be able to move his/her arms.

Everything was cut out with ordinary scissors. The outfit was measured by holding the foam up to the actor and sizing out the parts that way. He literally held still while fellow students marked off where to cut the foam to fit him. They got it right on the first try. It took one whole roll of seven-dollar camping foam to make the costume.
The under shirt of this costume is just a large black shirt that has glued to it row after row of Foamies in a shingle pattern. They completely go below the edge of the bottom of the shirt and were laid on the shirt to cover as much of the fabric as possible. The shirt and Foamie shingles were then spray-painted brown with a bit of black to add some contrast.
Creating The Foam Sword

The blade is made of two pieces of blue foam with the hilt and handle all cut out. The dowel rod in the middle is a small 3/8 square dowel rod.
I am using my finger and hand for scale measurements. You can do the same. After you fit the two pieces together, leave a bit of room at the tip to join the two sides together. Glue the foam on both sides to the dowel rod with high-temp glue.
Notice In the above photo that I don’t run the dowel all the way to the end. I want to glue those two pieces together to create the tip. Then I spray painted and wrapped the handle with strips of craft felt. I cut it in strips and used high temp hot glue. Be careful using this.
Bevel the edges using the sanding wheel on a Dremel tool, sand down the edges by hand, or use an Exacto knife or scissors. I decided to paint my swords black but leave the edges silver where the blade has been sharpened from rough iron. Your choice, as to the width of the blade. These have a broadsword look with rough leather straps on the hilt.
This costume was made for another movie project I worked on with the students. The main character is wearing a homemade 1960s astronaut costume made from a painter’s jumpsuit that is hand painted with white latex house paint. The snoopy hat was made from several caps and has black felt pieces glued to it on either side. The collar just fits down over the neck and is made of both blue foam and Foamies. The movie can be Seen [here](#) on the KET School Video project website.
This astronaut costume just lacks the NASA badges and it would look pretty good. If I wanted a helmet I would just need to make a Paper Mache Ball and cut out a large oval and then fit in a piece of plastic.

The suit is made from $5 coveralls purchased at Lowes. The gloves are cheap work gloves. They are also painted with white latex house paint to give them the look I wanted.
I decided that the crew from a space ship hundreds of years in our future should be wearing outfits that looked more like something from *Star Trek*. I found some sweat shirts in unusual colors at Roses for around $5 apiece. The students and I fashioned little badges out of Foamies for them that were just glued on with hot glue. The movie was more of a challenge to see if the whole thing could be shot in front of a green screen.

The other main problem was blue jeans. I asked them to bring in a pair of black pants. Most of the scenes were filmed from the waist up, kind of like a Muppet movie.

The green Badge was a problem and all those scenes had to be reshot.
The head on the stick is to help the actor look in the direction he needs to be looking when delivering lines. The boom mic is held over the top of the actors heads. The camera operator’s only job is to listen to the sound and start and stop the taping.
I used the program for many of the backgrounds and many of the spaceships. It plays like the Sims games. It big advantage is all the movie sets you get, plus the music. You can also mod the game with mods from this site. The mods are free and with this tool you will have nearly an unlimited supply of virtual sets. The program is also very inexpensive. You will need both Movies The Game and Stunts and Effects for access to all of the sets and features. Here is a demo on YouTube of it being used.

The students really enjoy creating animated movies using this program as well. It is very intuitive and educational studies have been done on this program that have found that it increases kids’ creativity and creative Thinking -- probably the worst thing for a game it today’s game industry, which thrives on creating video games that have little to no educational value to them.
The movie green screen was made from an old projector screen that was thrown away because it had a black smudge that would not wash off near the middle. I had studied the formula for green screen green and here is that formula to have it made at Walmart for around $15 for a gallon of paint.

Here is the formula for the paint I was able to make. If you have this mixed and it does not look like this, then something went wrong.
$15 green screen paint was a great bargain. Actual green screen paint can cost over $100 a gallon.
Here is a foam armor project with a more organic look. This armor was designed by me after the King Arthur armor was constructed. This armor is much lighter and made almost completely of Foamies, with hardly any heavier thicker blue foam.

It is seen here, as it was assembled on a duct tape dummy. This armor is more graceful. It lacks the clunky look that the early heavy armor had.
This armor still needed support, though, and it gets that by having blue foam underneath to brace it. It was spray-painted brown then painted with black to help reinforce the contrast of ridges that are seen in the costume.

The back of the armor utilizes a V shape to help give it a more graceful appearance.
Duct tape dummies are great to hot glue Foamies to. They never complain about the burning glue.

You have to find someone willing to endure the torture of this. Don’t wrap them too tight. It could kill them.

Easy to make. Just make sure the shirt you’re wrapping someone up in is disposable, because you have to cut it off of them.
Here’s a Batman outfit made out of Foamies and rubber matting. The challenge for me and my students working on this was not to create a Batman outfit but to create something that might look like a superhero outfit that might somehow resemble outfits like Batman’s. In the photos you can even see we wrapped a student wearing a t-shirt in duct tape.

We filled the duct tape shell with scrap paper then sealed it up.

This shirt was cut up the back after the duct tape was applied. The student was freed from his duct tape shirt and it was taped back up. The whole thing was filled with paper and it was used to lay the Foam outfit on. This way you could apply hot glue to shape the outfit without burning a real person. It is easy to find more info on this. Just type in Duct Tape Dummy On Youtube.

Download Your Own Batman Outfit Template
The Batman outfit and how it was evolving. It’s made of Foamies
This is what it looks like after a few coats of black spray paint and fitted to the dummy.
That really shiny black look is from the Yoga Mat I used to glue the Foamies to. Its cost was $7.

Not long ago we built an entire mannequin using a Japanese Program for paper folding called Pepakura. The mannequin is 6 foot tall. Maybe taller it does not have a head.
This will take you to where you can download the Pepakura viewer for free. The designer will let you import files from Poser, Google Sketchup and other 3D programs so that you can turn your own designs into 3D cardstock models. Here is the Pepakura Viewer and Designer. I found the Mannequin online. It was fun for the students to construct. Just print it out on a cheap printer with cardstock 110 paper. Then have the students cut out the pieces and match the numbers up. I have found the students really enjoy assembling Pepakura models. Also this is a great team building exercise.
Hot glue and patience was needed to create this model. When it was finished being assembled it was coated with several coats of poly resin called Smooth Cast 321. It is low-odor and takes 7-minutes to set so you get more time to brush it on the model. Create your own.
The students took great pride in putting this model together. It took a bit of time, but they really worked like a team in helping each other cutting out the pieces. I only let the students use low-temp hot glue for this. Low-temp will sting you but will not be as likely to burn your fingers.
The students brushed on the Poly Resin. I bought cheap brushes from the dollar tree because you have to throw away the brushes after one use. The brushes stiffen up and can’t be used again.

It is best to wear gloves and aprons to avoid getting any of the poly resin on you. I have gotten it on me, and while it is not life threatening, it is annoying and is hard to get off of your fingers. It’s also poisonous if ingested.
Some Pepakura Costumes My Students Have Constructed

Here’s a huge gallery of Halo costume templates. Just type-in Pepakura and the name of the costume you’re looking for.
This combination of parts from different movie characters is very interesting. The parts come from *Halo* and *Predator. the Movie*.

I have been working toward creating three space costumes using the Pepakura technique with cardstock paper. These will need several layers of poly resin to strengthen them up before they can be painted.
I found this Cylon costume online and while it's not Pepakura, it is a Papercraft Cylon costume from the 80s. Some students assembled it in Art class as a group project.

Cylons are just scary looking.

Create your own Pepakura Cylon.
The Cylon costume was really fun to create. Although we most likely would never make a fan film, it is something to think about.
Student Design Using Gym Foam Matting of Armor for *Fallout New Vegas*

One of my students got excited about what we were doing and created this to go along with the Pepakura *Fallout New Vegas* helmet he constructed.

The rubber can be shaped using a hot air gun and retains that shape.
Pepakura *Halo* Space Helmets With Working Lights

The visor is just an oval bowl bought at the Dollar tree and then fastened to the inside.

Dollar Tree reading light taped into the Inside of the Helmet.
You can design your own props and costumes with *Google Sketchup*. Transfer them to *Pepakura Designer* and then print them out.

Here a student is sitting on her chair she created from paper. It is now a functional chair, designed with *Google Sketchup* and translated into a paper model of the chair using the *Pepakura Designer* program.
You name it, Google Sketchup Can Help You Design It
Watch this video on the KET School Video Project site
to see how to create architectural designs with Google Sketchup.

![Image of chair design created in Google Sketchup](image1)

Assembling the design from the cut out pieces.

All pages taped together ready for cutting out.
48 Hour Film Festivals: Great For Recycling Costumes

The Shovel and Grail video project was made at scenic Mill Springs, Kentucky, for the 48-hour Film Festival. Our entry starred both current and former students. I was able to recycle many of the past costumes including the King Arthur suit. Just a bit of spray paint and you’re good-to-go. After all, you don’t have time to design a new suit of armor. Here is the Shovel and Grail video at the KET School Video Project website.
Four teams had less then a few days to take just ten lines and weave them into a plot for a contest using a prop that was given to them and a word for their theme. Our movie at times is strange and makes little sense. I think it fits right into the category of Theatre of The Absurd. It also has an Art Film quality to it. Here is Lucky No. 2 on the KET School Video Project website.
This film was made in four hours from start to finish. It utilized green screen and loads of special effects.
Very Serious to Silly Videos Using Special Effects

This **PSA on anti smoking** uses Composite Lab Pro program to give the whole film a blue look. It can give a video just about any look.

This **PSA** is about eating right and uses Special Effects to get the message across.

This Twilight Zone-like **calendar movie** uses a variety of little effects to achieve the goal of telling a story while speaking in a foreign language.

Just a **normal day at school**? Maybe not. These kids are super-powered with Special Effects.
Cheap Steady Cam Rig

This rig was built using a small, cheap tripod and an old drum holder no longer used by the school band. I am currently working on one that will also have an extendable arm that will come off and allow the person using it to be able to turn the camera without turning the body.

The best thing about this rig is that it allows me to be able to shoot hands-free. It is also much steadier then using my hands alone.
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KET Multimedia Resources: [www.ket.org/schoolmedia](http://www.ket.org/schoolmedia)
- KET School Video Project
- KET Summer Multimedia PD Days Event
- In-School Workshops by KET education consultants
- KET Media Lab workshops and tours for teachers and students
- KET MediaWorks Blog
- Information on multimedia equipment and resources