

Project Title: Famous Virginian Marionettes – A collaborative STEAM Unit

Driving Question: How can you create a marionette to start a conversation between two famous Virginians?

Grade: 4 **Length of Time:** 9 periods of 45 minutes each

SOLs: Virginia Studies 1.d,f,g, Science 4.2; English 4.1,4.2,4.9; Math 4.8.a; Technology 3-5.1,2,10,11, Technology Literacy Standards 9,10,11. Art 4.1, 2, 5, 6, 7, 11, 12

Major Products: Presentation, Marionette, Negative and Positive Space Drawing

Location of Work		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9
Art	<u>Materials</u>	-Bunchems -pipe cleaners -gear set -magformers -sculpture set -various other building materials	Mr. Bones -rulers -markers -paper -mannequins	-Paper -pencils -mannequins	-Mannequins -8,5 x 14 paper -12 x18 paper -pencils -markers -pattern sheets	-sharpies -pattern sheets -markers -large body drawings	-completed marionettes -head template and paper -coloring tools -hot glue -glue -tissue paper -fabric	-completed marionettes -clothing mock up -fabric -scissors -glue and glue guns -yarn -buttons, etc	Collaborative Phase Adding Motion <u>Materials:</u> -Popsicle sticks -Fishing line -Ruler -Scripts -Completed body structures -iPads -DoINK -Green screen <u>Lesson Overview:</u> Teachers work with larger group of students to complete projects and attach strings. This gives students time to practice, find backgrounds and be ready to record. **Do not attach strings until marionettes are dressed **Have location to hang marionettes to keep strings from being tangled.	Record <u>Materials:</u> -Completed,working marionettes -iPads -DoINK -Green screen -script of conversation <u>Lesson Overview:</u> Students work in rotations to: 1.Choose background 2.Rehearse with group 3.Record Video 4. Create video and edit as needed
	<u>Lesson Overview</u>	Manipulative Students rotate through 6 stations where they create a human figure	Learning about Body Proportions 1.Demonstrate how to measure a body using head length 2.Talk about average 4 th grader height 3.Brain loosening exercises- scribble, blind drawings 4. Independent drawing with mannequins.	Drawing Bodies in Proportion 1.Review bodies in proportions. 2.Have students stand to measure arm length. 3.Brain loosening exercises. 4. Direct instruction on drawing bodies 5.Student use mannequins to draw figures.	Final Proportion Drawing 1.Review how to draw bodies in correct proportion. 2.Loosen brains. 3.Independent drawing on smaller paper. 4.Use guides to mark paper for correct proportions on 12 x 18 newsprint. 4. Draw 2 practice figures then move to final copy. 5.Independent drawing of body.	Creating Negative and Positive Space 1.Review positive and negative space. 2.Trace pencil lines of body with sharpie. 3.Use pattern sheets to fill positive space in body. 4.Fill negative space with color.	Plan Clothing 1.Teacher hands out marionettes to groups. 2.Direct instruction how to make a mock up for clothing 3.Students work to create mockup of clothing using tissue paper.	Getting Dressed 1.Direct instruction on creating clothes from pattern mock up. 2.Teacher works with student groups on making clothes, adding hair and final details 3. Students complete clothing on marionettes.		
STEAM	<u>Materials</u>	Motion Rotations **Optional introduction activity for Motion Review Create stations that help review the concept of cause and effect as they relate to motion. <u>Key ideas to cover:</u> 1.Speed and direction 2. Kinetic Energy 3.Changes in motion 4. Relationship between force and mass		-Introduction Video -Body drawings -ruler -marionette layout	-Body drawings -body measurements -Ruler -Marionette layout	-Body measurements -Cutters -Popsicle sticks -Cropdile	-Complete pieces of marionette -Hot glue gun -Brads/metal fasteners	-iPads -DoINK or other green screen app -Green colored paper -various figures or toys		
	<u>Lesson Overview</u>			Motion and Measurement 1.Hook video of marionette in motion 2.Introduce the driving question 3.Connect to bodies in art 4.Transfer parts of body to motion in the human body 5.Form groups and review design brief 6. Transfer proportions drawing to marionette body structure (hips, shoulders, body and neck)	Measurement 1.Do a quick check on measurement using a ruler to the nearest quarter of a inch 2. Have groups begin measuring drawing and recording on design brief 3. Gather sticks and begin recording necessary length and part on the stick	Cutting to size 1.Demonstrate the use of the cutting tool 2.Groups begin cutting pieces of marionette and laying out on drawing 3.Show use of crop-a-dile 4.Groups mark locations for glue versus a joint 5. Holes are punches in parts of marionette	Connecting 1.Groups begin connecting parts of marionette together 2. Hands, feet and neck are glued in place 3.Length of string needed is determined 4.Crossbars are created 5.Strings are attached to hands and feet as well as crossbar to allow for motion	Green Screen Exploration 1.Introduce green screen app on ipad 2.Demonstrate components of using app: -colors of green -choosing background -recording video with all green -transferring to the app 3. Allow students time to explore placing objects behind the camera to discover how to use a green screen		
Classroom and/or Library		Research Day 1: Creating Citations (Materials: Visual Citation Guide) Day 2: Notetaking (Materials: https://www.youtube.com/watch?v=Q3S1chdLhhw) Days 3, 4, & 5: Research				Writing Script Days 6 & 7: Students will work with their partner to create a 1-minute script based on their research.			Rehearse Script	