Futurism: Capturing Modern Technology

Even through my lifetime of three short decades I have seen drastic changes in technology. When I was a kid we had a computer with 64MB of memory, which is less than even a memory stick today would hold. ATM cards have practically replaced checks; GPS allows you instant access to maps and directions. Cell phones, texting and chat allow us to never be out of touch, even for an instant. Myspace and Facebook give us constant updates about the lives of peers, family members and friends. Digital cameras and web cams allow information to be recorded and uploaded immediately. Students are extremely familiar with this technology and couldn't imagine their daily lives without it! Other technology is being created to make the world a cleaner place, like solar power and hybrid cars. Futurist artists working in the 1910s were exploring how to capture the new technology of their decade on canvas with paint, though their new technology was motion pictures, still frame photography and the industrial revolution. I would like to challenge my students to capture the new technology of their own generation while exploring how it has changed their everyday life. While futurists were capturing the motion of the figure itself, how will students deal with the idea of capturing the movement of information that happens all around us, but we don't actually see?

Also, I would like to use futurism as a way to answer a common question in my classroom: "How is that in a museum? I could do that!" I love this question and I love challenging my students to think about what kind of circumstances might have caused the artist to consider creating artwork that appears so simple. Students look at an artwork that appears to be only shapes and colors and assume that the artists simply painted whatever they wanted, with no thought to what they were putting down on the canvas. Students assume that simply because the artist has simplified a subject in his/her artwork it is less sophisticated, when in fact usually the exact opposite is true. I want students to understand that when the technical act of painting a painting is difficult, usually the subject is easy to understand; while when the technical part of painting the painting looks easy, the concept sometimes took the artist much more time. Futurism is a great example of this because the focus becomes celebrating the movement instead of capturing a realistic rendering. I would like to focus on futurism as a style where students can experience this process of decision--making and simplification themselves; while exploring subject matter which is an integral part of their lives.

I am writing this unit for my Introduction to Art class, which is composed of students who have seen abstract art, but are usually unable to put it into context. I see my students every other day for a block period of 80 minutes. This schedule allows me to plan a variety of different activities in one meeting to get students engaged in the artwork. It also allows for a solid chunk of studio time. I usually try to break the period into at least three smaller lessons so that students learn the same material through different modalities, as
differentiated instruction is extremely important. I would like to create this unit to give them a means to understanding abstract artwork. This unit also fits perfectly into my strategy for teaching drawing. Just recently I have switched to teaching a parts to whole approach where students learn to draw the basic shapes, and their three--dimensional counterparts first. Once they have mastered these shapes and learned to give them volume, students create a still life from objects with fairly similar shapes to those they have been studying. I would like to use this unit to take them to the next step, where they need to look at an object of their choice (related to technology and the future) and break it down into those same basic shapes. Because they have already done a still life in this manner they will need to determine how these basic shapes can be composed to show motion.

I teach art at High School in the Community, a small magnet school in New Haven. Two--thirds of our students are from New Haven, and one--third are from the surrounding suburbs. Because my students come from a variety of different neighborhoods and a variety of different school systems they come to me with a variety of different art experiences. However, most students react the same way to abstract artwork.

Objectives

My objectives for this unit have two distinct categories: technical and conceptual. On the technical side I would like students to analyze a subject as a whole and determine which basic shapes to break the subject down into. On the technical side, I would also like them to be able to draw and paint those shapes correctly, and to add volume to them using tints and shades. Lastly, I would like them to be able to capture motion using gesture drawing. On the conceptual side I would like students to be able to understand why an artist might want to represent a subject in a more simplified manner. I would also like them to think about how they might show movement related to today's technology. I am hoping to reach this objective by having students actually go through the process of creating a futurist painting, and to discuss how the abstracted work is different than simply a snapshot of the subject. We will discuss what further information an abstracted painting gives the viewer and why.

Futurism

Up until around 1840 the idea of what should be painted was a romantic one. People commissioned portraits, events were recorded, but everything was painted in a very romantic way -- figures were painted of the subject in the way that they wanted to be viewed and remember -- not necessarily as what they actually looked like. In the 1840s artists began to become realists. They stopped being concerned with what the viewer would think and began to paint exactly what they saw. Then in the 1870s artists began to reject line, perspective and studio lighting and began to focus on the way our eye captures an image, which is always changing and never exactly the same, in a style that became known as Impressionism. Next, in the 1900s artists lashed out against imperialism and along came Primitivism with unnatural colors and much less delineated forms. The idea was to unlearn the things you've been taught and go back to a more simple time. Then, in 1910 artists began to embrace modern technology and began to focus on forms instead of subject
matter, paving the way for nonobjective art. All of these styles were happening concurrently through different groups of artists. (Lewis)

Futurism was a part of this modern push, and it began to appear right before World War I. Artists were no longer looking at the present but were now glorifying the future. They were "turning against beauty and grace toward rhythm, speed and color." (Lewis 81) Futurism took its roots in the Futurist Manifesto, written by Filippo Marinetti in 1909. The manifesto branched across all of the arts, though the original version was focused mainly on writers. It focused on three main concepts, first, "to seek inspiration in contemporary life." (Martin 38) Where artists had been looking back to Primitivism or old techniques, futurist art was to celebrate the here and now. Next, "to be emancipated from the crushing weight of tradition (existing academies, museums, libraries and all similar institutions)." (38) Artists were not to seek inspiration from what was esteemed in current schools of thought, but to push forward through that thinking. Third, to have "contempt for prevalent values of society and its corresponding conceptions of art." (38) Artists were also to ignore what society around them was claiming to be art. Futurism "rejected the idealist notion of a static, changeless reality." (41) Artists were to focus on movement, change, and advances in industrialization. Where previous artwork took a snapshot of a particular moment or scene, futurist artwork was to capture the idea that life is constantly changing and advancing. "Activity or change was equated with reality and life and was hence to be the essence of art." (41) Artists were to begin capturing movement in their artwork.

In 1910 an addendum to the original Futurist Manifesto was issued with a focus on visual artists. Artists knew that they were supposed to capture change and activity, but how? Artists were to focus on capturing speed through a cubist–like fragmentation of images. They were to capture "dynamic sensation itself made eternal." (50) Artists should show movement through gesture -- capturing the subject in mid–action. They should also show the passing of time, by juxtaposing different freeze–frames of the subject in motion together in one canvas (the nod to Cubism). (51) Artists began to paint a person or object in motion and combine a few different views of them in motion into one composition. Around the same time Eadweard Muybridge and Etienne Jules Marey were using black and white photography to capture people in successive steps of motion. These series of quick stop motion photographs were being run in magazines and called photochronographs. The cinema was also in its birth, and artists used inspiration from both of these media to begin to paint their canvases.

What is Technology?

By collecting examples of technology, I hope to begin a discussion about what technology is and how it affects our lives. I would like to do this by presenting students with a variety of photographs and objects to start them thinking about technology. Objects would include things such as: a bike wheel, photographs of old cars, photographs of satellites, manual cameras, digital cameras, CDs, jump drives, old cell phones, an old computer (if I can find one), Tupperware, etc. Students will be paired off and will choose one item to analyze. As a pair they will need to hypothesize the following:

-- When the item was first created?
-- Why it was first created?
-- What did it change, or make easier?
-- How many times a day do they use it now?
-- Are there updated versions of it?
-- What did it replace?
-- What would life be like without it?

I would like students to go through this exercise before we begin looking at futurism so that they start thinking about technology in a more specific way. As a homework assignment I would like students to interview someone who is at least fifty years old and ask them a series of questions about the most significant technological advances in his/her lifetime.

**Muybridge vs. Duchamp**

Next students will look at photographs by Eadward Muybridge. Muybridge's photos show a series of frames of a shapely woman walking down stairs. We will need to have a discussion about appropriateness because many of his freeze frame images are of nude figures. To us the freeze frames are a common sight and many cameras have a "burst" setting, which will capture movement in the same way that this series of photographs is taken. However, when futurists began working this was brand--new technology. No one had ever seen motion stopped this way. I would like students to brainstorm what technological advances might have been around at the time that these photographs were produced. I am hoping that they see the direct connection to photography itself, and also to the idea of creating movies. I would like them to think about ways that the photographs might be helpful. Students will then try using the burst setting on the digital cameras to take photographs similar to Muybridge's. We will discuss why taking these photographs would have been much more difficult for him, and how easy digital cameras have made it. We will also use these photographs later when we begin working with gesture drawing.

Next students will discuss how an artist might show action in a painting. I will ask them to do an artwork of their own to show the motion of a woman walking downstairs. They will be allowed to select from a variety of media -- collage, drawing, charcoal. This will allow them to work in whatever media they feel most comfortable with, since some students may not yet be able to express their idea through drawing. After they have created their version of a woman walking down a staircase they will compare Marcel Duchamp's Nude Descending a Staircase with Eadward Muybridge's freeze frames of a woman walking down stairs -- both examples of artwork which capture a woman doing exactly that.

Marcel Duchamp was introduced to art as a young child by his grandfather. His talent was first recognized in his teenage years and he moved to Paris after graduating to study art. He created a painting of a coffee grinder as a present for his brother's kitchen that is known as one of the first paintings to "indicate movement in a static image." (Naumann 42) He began incorporating cubism into his artwork and was extremely influenced by the photographs of Muybridge. His Nude Descending a Staircase was described as a combination of futurism and cubism, though Duchamp had not even seen an example of futurism at the time.
His painting was rejected from the Independents' Exhibition in 1912. The jurors were his friends and family, and therefore he stopped painting all together. He took a job as a librarian and continued drawing and later went on to push the definition of art with his ready-made sculptures and was a strong force in the Dada movement.

Marcel Duchamp's painting Nude Descending a Staircase is actually a series of three different paintings which can all be found at: http://www.philamuseum.org/collections/permanent/51449.html?mulR=21139. All of the paintings are composed in very earthy tones, mostly browns in the background and skin tones for the figure mixed with yellow and green in some places. A series of flat shapes on the bottom right resemble a person. There is a rounded out rectangle as a torso shape and then another where hips would be. Next there are lines that seem to signify a bent arm, and an extended leg. It is obvious that parts of the figure are repeated up and to the left of this figure, which begin to imply motion. Some stairs can be made out at the bottom of the image, but otherwise the background is difficult to discern.

There are obvious similarities to Muybridge's photographs. One example of his photographs is available at: https://www.moma.org/collection/browse_results.php?criteria=O%3AAD%3AE%3A4192&page_number=15&template_id=1&sort_order=1, though a google search would show lots of different options of frozen motions from figures to horses running. In this example the figure is obvious; the repetition is there, though in separate frames. Duchamp's figure appears to be much more abstracted. He has broken her down into parts. There are some lines that are included just to imply motion and are not necessarily a part of the figure.

I would like students to think about the following questions:

--How is Duchamp's painting similar to the frames by Muybridge?
--How are they different?
--What do you think Duchamp was trying to capture?
--Why might Duchamp have chosen not to add all of the realistic details to his figure?
--As the viewer hat different information do we get from each piece of artwork?

I would also like students to think about the most recent advance in this particular department, which is a freeze frame of a 360-degree view. It was made famous in the movie the Matrix. I would like students to compare how this is parallel to the technology that Muybridge was experimenting with at the time.
Malevich vs. the Knife Grinder

Next students will compare photographs of a knife grinder to Malevich's painting of one. Kasimir Malevich lived in Russia, but was of Polish decent. He never traveled, but was introduced to the idea of Futurism by his friends. When he was younger his father worked in a sugar mill. He said, "(the) machines resembled carnivorous monsters." (Hilton 7) Because of this childhood experience he did not celebrate modern technology in the same way that his contemporaries did, however he did capture the same sense of movement and vitality. He began painting at a young age and began applying Cezanne's principle that everything should be reduced to geometric forms: cone, cube and sphere. This is the same approach I will be taking teaching my students drawing. Malevich's work turns people and objects into geometric solids. (Milton 13) The unit I teach before this one will have my students practicing exactly that -- they will practice drawing each of the building blocks correctly. His style becomes a mix of Cezanne and cubism. He uses more than one angle of the object, breaks the object down into geometric forms, gives the forms implied volume from a variety of different light source throughout the composition and captures the movement and rhythm of the action tacking place. (Crone 41)

Malevich's the Knife Grinder/Principle of Flickering is a wonderful example of futurism. (It can be viewed, along with an explanation of the painting at: http://artgallery.yale.edu/pages/collection/popups/pc_modern/enlarge9.html) In the center of the painting is a large, white, semi--circle, with a smaller white circle above it. Below the semi--circle the shape of a foot and toes of a shoe are repeated over and over again. A back leg is visible, planted and not moving. Above the smaller circle are six different hands in different positions. One appears to be holding a grey triangle shape that is also repeated. At the top there are different facial features repeated as well. There are three eyes visible, at least four different parts of mustaches, and different nose shapes. The background is also very fragmented. Malevich has captured the movement of the knife--grinder very effectively.

I am excited for my students to see this painting as an original, at the Yale Art Gallery. Having the opportunity to see an original artwork is a wonderful experience. I am curious to hear their initial reactions to it because I am not sure that they will have any background knowledge about knife--grinding.

Futurism as a Whole

Students will look through examples of futurism by a variety of different artists such as: Balla, Boccioni, Carra, Russolo, Servini, Duchamp, Leger, Malevich and Stella. Students will work in small groups to create a powerpoint presentation about one of the above artists. In their small group students will need to look up a variety of different images by the artist. If time allows I would like to take them on a field trip to the Yale Art & Architecture museum so that they can look at entire books of work by each artist. I think that this is important because looking up images on the computer is not sufficient, plus it is easy to mistake and artwork inspired by an artist for an artwork by an artist they way images are catalogued by search engines. To avoid this confusion, students must include at least six different futurist paintings in their presentation and must include the name of each painting and the year it was painted, to show the artist's progression.
Other slides will focus on: how specifically the artist captures motion -- this will change for each artist, how the artist breaks the subject down into shapes, what shapes the artist repeats and what technology was the artist thinking about. Students will answer these questions as a group, each one being a slide in their slide show.

Individually, each group member will choose one of the pieces in their slide show to describe and analyze. They will each present their analysis as a part of their presentation about their artist. In their analysis students will need to explain how the futurist painting gives them different information than a single snapshot of that subject would. They will have to cite the artwork for support.

**Feldman's Method**

When I teach students how to analyze artwork I use Edmund Feldman's method as a framework for our discussions, they will use this method to analyze the painting of their choice by their artist. It is a process that entails four steps: describing, analyzing interpreting and deciding. (Simpson 123) When students are first presented with this model they are eager to interpret the artwork first and foremost. I encourage them to record these initial feelings towards the artwork they are viewing, however I also model for them a new more in depth way of viewing a piece of artwork. First, I ask students to describe the artwork. In order to try to teach the students not to interpret I encourage them to describe only things that are obvious in the artwork. I stress this by having them only list objects, if they cannot recognize any objects, then they should begin to describe shapes and colors instead of assuming what subject they artist was trying to express I often start the discussion using this question: If you wanted your friend to go to the art museum and find this specific piece of artwork, how would you describe it for him/her? Initially, we complete this process as a class. I am at the front of the class recording all of the students' suggestions on the white board, or sometimes I will choose a student recorder. If students do not compile a detailed enough description I will read them the description they have recorded so far, and explain to them another piece of artwork that could fit that description. This prompts them to continue describing. If a work is very large and detailed I may also break it down into four quarters, which we will discuss one at a time, so that the students have a more specific area to focus on to be sure they create a complete description. It is important for students to create a detailed description because they pick up on details that they might have missed upon first glance. The first few times we participate in this analysis it is difficult for students to refrain from interpreting the artwork, but as I model the process and they become familiar with it they become very adept at describing the artwork.

Next, students analyze the artwork using the elements and principles of design. Students discuss composition, use of color, and which particular techniques the artist has used in the artwork. Because students come to me with a very limited vocabulary, they become exponentially better at this process as the class continues, because they begin to learn more about the elements and principles of design. They have a better understanding of identifying and applying these principles. Here I will expect them to focus on the basic shapes and shading techniques we have learned in the previous unit.

The third step asks students to interpret the artwork. After describing the artwork in detail they have a full arsenal of details to use to formulate an interpretation. I will ask students to hypothesize what the artist was thinking about when s/he created the piece of art, and why they think this -- this is where supporting evidence becomes important. The first few times we use Feldman's method we do it out loud as a class so that students gain an understanding of how the process works. For these specific images the idea of technology and what
the artist is celebrating through futurism will be an important part of the interpretation.

The last step of Feldman's method is for students to decide whether or not they like the piece of artwork and to defend their decision. I will skip this step during this particular unit, to save time so they have enough time to work on the studio portion of the unit. I usually use this step when the artwork is more controversial, or I know there will be a strong reaction to it so we can engage in an interesting dialogue.

**Lesson Plan**

Objectives:

Students will be able to describe a painting without interpreting it.

Students will be able to analyze a painting using the elements and principles of design.

Students will be able to create an interpretation of the artwork and support that interpretation with specific information from the artwork.

Materials:

Malevich's The Knife Grinder at the Yale Art Gallery.

Paper and a pencil

Procedure:

1. Students will do a thumbnail sketch of the painting. This is a quick, rough sketch, just to get the basic idea of the painting. It gets them looking at details and looking past simply what they "think" it is.

2. Students will be asked to describe what they see. What shapes, what colors, what specific objects can they make out?

3. Next once students have a description they will need to analyze how the artist has used elements and principles of design. They should be able to talk about repetition of shapes, flat shapes versus shapes with volume, colors in the same color family, etc.

4. Students will need to explain what they think the artist wanted to get across to the viewer and why, using support from the artwork. When I first start this exercise with students I often set up the sentence for them, "I think...because I see...in the artwork."

5. I will give students some background information on the artist, the movement of futurism and the subject of the painting.
Capturing Motion through Gesture Drawing

One technique used by artists to quickly capture a pose is called gesture drawing. Gesture drawing is essentially a scribble, a series of very quick lines or shapes that capture the essence of a pose. The artist usually focuses on the direction of the object and on capturing the angles and masses of it. A gesture drawing is used to give the viewer an idea of the position the object was in, not to record detail. I will have students start by doing a series of gesture drawing of the figure until they get the hang of it. Gesture drawing should also be useful as a step to help breakdown objects into shapes, since it is a similar process of simplification.

Previous to this unit students will have become familiar with Cezanne's theory that everything can be broken down into geometric forms -- cones, rectangles, spheres and cylinders. Through drawing masses in gesture drawing we will review some of this simplification. Students must then take their idea for technology and break it into these basic geometric building blocks. I will model using the human figure to start, since many of my students' paintings may involve the figure.

In my demonstration I will ask where we should start the simplification -- it is fairly obvious which shapes each body part would become. The head becomes an oval, the torso a trapezoid with the larger width at the shoulders, the pelvis a small rectangle, and each appendage two attached cylinders. Students will practice with the figure and then will continue to breakdown any other objects they need to. We will revisit The Knife Grinder so students can see how Malevich simplified his figure. We will also look at examples of Leger again, who also simplified figures in a similar way.

Lesson Plan

Objective:

Students will capture motion through gesture drawing.

Students will draw the figure in proportion.

Students will begin to understand foreshortening.

Materials:

Large paper, markers (so students cannot erase) and examples of gesture drawing.

Procedure:

1. We will review Cezanne's basic geometric shapes and how to draw them.

2. As a class we will break the human figure down into each of Cezanne's basic shapes. I will have a student volunteer draw each part.

3. I will ask a student to pose in mid--action (mid--kick or throwing a punch, etc.) and then walk students
through doing a gesture drawing step by step. I will demonstrate and they will follow along. I will constantly be asking leading questions about comparing how different parts of the body are in relation to one another. (What is the highest thing you see? Where is the elbow in relation to the head? How much of the leg can you see? If you can only see the thigh and not the lower leg, only draw what you see! etc.)

4. Students will continue doing gesture drawings while a volunteer or I poses for about 30 seconds for each pose. I will walk around as students are working and ask them questions about their gesture drawings.

Homework:

Students should do at least five practice gesture drawings from pictures or through friends posing.

Exploring Our Future

After students have presented their futurist artists we will again brainstorm current technology that is of interest to them. Students will need to choose some type of technology to create a futuristic style piece of artwork about. They will need to determine the subject matter and the motion they wish to capture. For instance, I might choose Facebook as my technology that I want to focus on. I need to brainstorm about that technology again -- how do I want to show it? What motion will I show? I might want to show many different computers all bouncing information to one another by repeating a shape between all of them. Or I might want to show a simplified version of myself jumping from one computer to another, and by repeating the figure I will show the motion of it moving from one computer to another in cyberspace. I will break down the computer and the figure into basic, but easily recognizable shapes so that I can still tell what each form is, and through repetition I can tell their movement.

I will show students an easy way using tracing paper, to copy their shapes. So once I have drawn my figure I can create homemade carbon paper out of tracing paper to replicate my figure. You can trace your shape on one side, trace it darkly on the back of the tracing paper in heavy pencil. Then, line up the shape where you want it and press down again on the front side, transferring the pencil on the back of the tracing paper onto the paper underneath, repeating the shape. Students will compile their gesture drawings and begin to create a final composition, keeping in mind what they want the viewer to know about their subject matter.

Once students have completed their drawings they will participate in a peer critique. They will have a classmate look at their drawing and determine what technology and motion their classmate is focusing on. As an aide for their critique students will be given a half sheet with specific questions on it to answer about a classmate's artwork. Questions might include:

--What technology is the artist focused on?
--What has the artist done to show movement?
--What do you know about the subject from the motion shown?
--What is the most successful part of the drawing?
--What is one question you might have about the drawing?
--What is one suggestion you have to help improve the drawing?
Next students will transfer their drawings onto a canvas.

Painting Technology

Once students’ drawings are onto canvases we will pause to review color theory. Students will each create an individual color wheel using only the primary colors -- yellow, red and blue, to mix secondary colors -- orange, purple and green. They will then use a primary and a secondary to create a tertiary color in between each -- primary and secondary such as blue--green, yellow--orange, etc. This is an important process for students to go through so that they understand that red is a more powerful color than yellow, so even when you are mixing orange, you are not using equal parts of red and yellow because red is stronger.

Lesson Plan

Objectives:

Students will be able to mix secondary and tertiary colors from primary colors.

Students will begin to learn brush control and good craftsmanship with paint.

Material:

Acrylic paint, brushes of different sizes, palette paper, water jars, paper

Procedure:

1. I will test students’ prior knowledge of color theory by asking them questions about the primary and secondary colors. How do you mix green? How do you mix yellow?

2. I will demonstrate how to set up the color wheel on the board, and have them do the same on their paper. We will start by making an equilateral triangle with a circle at each point. Each of those circles will hold a primary color.

3. Once students have finished that together we will draw an inverse equilateral triangle inside of that one, placing another circle directly in between each primary color, and connecting the secondary colors. I will stress the importance of this being a functional tool so they need to be sure that the correct secondary color is in between the two they used to mix it.

4. Lastly, students will draw smaller circles in between each primary and secondary and fill them with tertiary colors.

Once they have completed their color wheel we will talk about complementary colors. Complementary colors are colors across the color wheel from each other. The pairs of primary and secondary complementary colors
are: red and green, yellow and purple and blue and orange. When complementary colors are painted next to each other they make each other stand out. When they are added to one another they dull each other, and eventually make brown.

Students will do two exercises to get them familiar with using complementary colors. The first will be a color theory exercise where they choose a primary color, and then paint four small boxes of that color, and surround each small box of color by other colors. They should see that the box surrounded by its complementary color should look different than the others.

The second are value scales out of each primary color. A value scale is a scale starting with the lightest tint of the color (the most white added) in equal jumps to the darkest dulling of the color (its complement added to make brown). Students will complete a value scale with seven different steps of each primary color. The primary color will go in the middle box of each scale. To the left of the primary color the student will add a little white, then a little more white, then a little more white, until the box on the end has the lightest tint in it. The boxes to the right of the primary color they will add a little more of its complement, dulling it a little more in each square until the last one is brown.

Once students have learned to dull and tint colors we will review how to add volume to a sphere, cylinder, square and cone. We will review light source, highlight and shadow and students will practice doing these with paint. This will get them used to mixing all of their value scale before hand and then blending the values together on the canvas to create a gradient (a gradual value change from light to dark). Once students have completed these exercises they will add tints and shades to their shapes on their canvas to make their shapes appear three--dimensional. Craftsmanship and brush control while painting will be very important.

**Assessment**

I assess my students in a variety of different ways and think that using rubrics is extremely important, especially since art is such an objective subject to grade. In order to assess students and hold them accountable for attending class each student is given a daily participation grade. This grade will be extremely important on the days in which the students are doing group work and presentations. Students will also receive a group grade for their presentations.

Throughout the process students will be asked to complete peer critiques. While I think that it is important for me to track the students progress, I also think it is important for them to see each other's progress. I find that the students are each other's best critics. If part of a drawing does not look correct they will be quick to offer a suggestion. I try to train them to be specific and to also offer suggestions if they are going to comment on a peer's artwork. Towards the end of each project I also have students fill out a peer critique form. This allows a new set of eyes, besides mine, to look at their artwork and respond.

Their final piece of artwork will be graded using a rubric. The criteria on the rubric will be given to students at the beginning of the assignment. The rubric will include the following criteria: researching futurism, brainstorming current technology, breaking down technology into geometric shapes that make sense, repeating shapes to create motion, drawing basic geometric shapes correctly, dulling and tinting so that shapes look three--dimensional, creating volume and capturing the idea of speed, movement and the future.
Students will be given a self--evaluation containing this rubric to fill out before they hand in their artwork. The teacher will then fill out the same rubric to determine the grade. (See Appendix)

Appendix

### Standards Based Curriculum

The city of New Haven has three bold goals for art. Here is how my unit will meet all three of those bold goals:

1. **Creating art** -- students will learn new techniques and media. 
   
   In my unit students will learn color theory by creating a color wheel and value scales with paint. They will learn to use tints and shades to create highlights and shadows so that they can paint objects with volume.

2. **Responding to art** -- students will be able to talk about and analyze artwork. 
   
   Using Feldman's method students will be able to describe, analyze and interpret artwork. I would also like students to understand why an artist might want to represent a subject in a more simplified manner, as well as analyzing different techniques for showing motion in an artwork.

3. **Making Connections** -- students must make connections from their world to the artwork.
   
   My unit will do this in two ways, it will connect students to the actual artwork, since we will be going to the Yale University Art Gallery to see the artwork. It will also connect futurism to their own lives by having them think about current technology.
Resources for Teachers


Resources for Students

Duchamp, Marcel. Nude Descending a Staircase No. 2. 1912. Oil on canvase

Available at: http://www.philamuseum.org/collections/permanent/51449.html?mulR=21139


Available at: https://www.moma.org/collection/browse_results.php?criteria=O%3AAD%3AE%3A4192&page_number=15&template_id=1&sort_order=1
Materials

Materials needed for this unit are: acrylic paint, brushes of different sizes, palette paper, water jars, paper, canvases, large paper, markers, a bike wheel, photographs of old cars, photographs of satellites, manual cameras, digital cameras, CDs, jump drives, old cell phones, an old computer, Tupperware and exemplars of different artworks listed above.