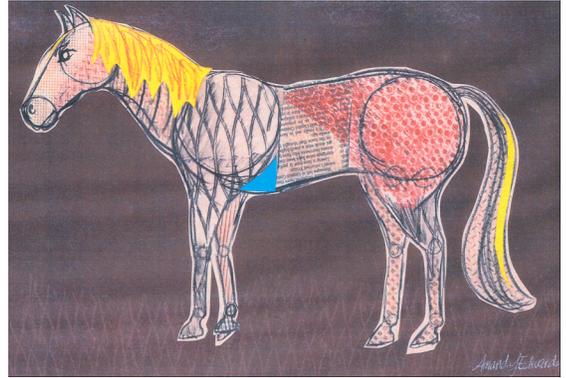




# Horse Studies

**GRADE: 6 and up**      **TIME: 1 or 2 sessions**

Developed by Linda Pfisterer, Art Specialist



<p><b>KIT INCLUDES:</b></p> <ul style="list-style-type: none"> <li>• lesson plan</li> <li>• book: <u>Leonardo's Horse</u></li> <li>• magazine: <u>Horses by D. Butterfield</u></li> <li>• vocabulary board</li> <li>• transparencies (18)</li> <li>• set of horse drawing sheets (24)</li> <li>• set of horse studies sheets (24)</li> <li>• set of texture boards (15)</li> <li>• teaching boards: <ul style="list-style-type: none"> <li>--4 horse reproductions</li> <li>--16-step drawing procedure</li> <li>--horse drawing demo board</li> <li>--horse anatomy</li> <li>--color</li> <li>--texture</li> <li>--artist's names</li> </ul> </li> </ul>	<p><b>MATERIALS:</b></p> <ul style="list-style-type: none"> <li>• newsprint</li> <li>• thick crayons neutral colors: black, white and many browns</li> <li>• scissors</li> <li>• glue</li> <li>• construction paper: --12" X 18" --black, gray, and dark brown</li> <li>• erasable marker for the demonstration board</li> </ul>
---	--

**LESSON DESCRIPTION:**  
Students learn about Renaissance man Leonardo da Vinci, and his desire to cast a 24 foot tall horse from metal. They are also introduced to the work of contemporary sculptor Deborah Butterfield, who makes life-size horses out of various materials. Students practice drawing horses, add rubbed textures, and use the drawings to assemble collages.

<p><b>VOCABULARY:</b> Renaissance man radius, diameter estimate realistic and abstract neutral colors collage texture, real and implied</p>	<p><b>ART ELEMENTS:</b></p> <p><input checked="" type="checkbox"/> Line <input checked="" type="checkbox"/> Shape/Form <input checked="" type="checkbox"/> Color <input type="checkbox"/> Value <input checked="" type="checkbox"/> Texture <input type="checkbox"/> Space/Perspective</p>	<p><b>ART PRINCIPLES:</b></p> <p><input type="checkbox"/> Pattern <input type="checkbox"/> Rhythm/movement <input checked="" type="checkbox"/> Proportion/Scale <input type="checkbox"/> Balance <input type="checkbox"/> Unity <input type="checkbox"/> Emphasis</p>	<p><b>CONTENT CONNECTIONS:</b> math: radius and diameter social studies: Leonardo da Vinci, Renaissance man <b>THEMES:</b> animals perseverance</p>
---	--	---	---

**OBJECTIVES AND ASSESSMENT CRITERIA:**

1. Students learn about Leonardo da Vinci's great horse sculpture and how his ideas survived in his journals.
2. Students compare the horse sculpture styles of Deborah Butterfield and Leonardo da Vinci.
3. Students look at the bone and muscle structure of a horse to understand how to draw it.
4. Students use shapes and lines to draw a horse.
5. Students use measurements of radius and diameter for drawing horse proportions.
6. Students rub neutral colors over texture plates to add texture to the horse.
7. Students cut out horse drawings and assemble a collage.

**PREPARE:**

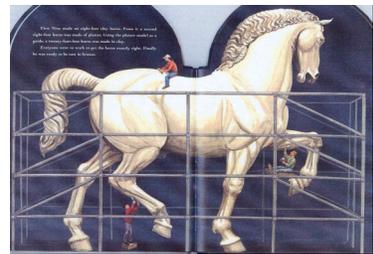
1. Teachers read through the lesson plan and books in the kit.
2. Practice drawing a horse so you can teach with confidence and help the students.
3. Collect the materials and have them ready. Paper substitutions can be made, but it is important to have a light weight paper so you can rub the textures. Try out the papers in advance. Newsprint works best.
4. Encourage students to collect more textures for rubbing before texturing begins, i.e. plastic mesh, etc.

## ENGAGE AND EXPLORE:



Display each numbered overhead transparencies as you read the following text.

1. Leonardo da Vinci was a true Renaissance man because he was an artist, scientist, inventor, botanist, engineer, musician, mathematician, social director and philosopher. When he had a question about anything, he investigated, made discoveries and often invented new solutions to problems. The duke of Milan, Italy asked Leonardo to make a large outdoor horse sculpture to honor the duke's father.
2. Leonardo was excited to begin his plans to make the giant horse. He lived by the king's horse stables so he could practice drawing the finest horses. He measured them, drew them, and felt them to find the muscles and bone structure for his sculptural plan.
3. The duke wanted the horse statue to be three times larger than life, so Leonardo made this 24 foot high clay horse as a model to cast the bronze horse. You can imagine the problems he had to solve as this large horse was only standing on two feet. Here he is presenting it to the duke. His next problem was collecting the metal and figuring out how to cast a bronze horse this large.
4. After five years of keeping the clay horse in constant repair, the French invaded Milan. All of the metal Leonardo had been saving to make the horse had already been turned into cannons to fight the war. When the French soldiers saw the 24 foot horse, they used it for target practice by shooting it with arrows. The rain and weather also contributed to causing the unfired clay horse to crumble.
5. Leonardo went back to inventing and writing in his journals, but he never forgot his horse. He did not realize at the time that his paintings and journals would become his legacy to us.
6. In 1977 National Geographic magazine wrote an article about how Leonardo died grieving for his horse. A man named Charles Dent read about it and decided to build Leonardo's horse and give it to Italy as a gift from the American people. He built this special building with a dome and borrowed some Morgan horses to study and measure for the sculpture. By 1993 he had an eight foot plaster model of the horse ready to be sent to the foundry to be enlarged to 24 feet. Sadly, Charlie died before this could happen.
7. Dent's family had promised him that the horse would be made so it was enlarged at the foundry. The horse just didn't look right. It was out of proportion and one leg appeared short. They called in a New York sculptor named Nina Akamu to fix it, but she had to start all over.
8. Nina made the 8 ft. horse in clay and then it was enlarged by making a plaster model. Notice the size of a workman on the 24ft. plaster horse.
9. Finally the bronze horse was complete and it was sent to Milan, Italy in 1999. A celebration was held for the unveiling of the "Leonardo Horse."
10. Speeches were given and the horse was unveiled. Only one other horse was allowed to be made before the mold was destroyed. It can be found in the United States in the public gardens of Grand Rapids, Michigan.



11. Another horse sculptor that we will discuss today is Deborah Butterfield. She lives with her artist husband and 2 sons on a horse ranch in Montana. Her knowledge of horses comes from caring for them and riding them almost daily. She says, "In many ways my art is about real horses, and in other ways it's not about them at all." She feels her goal is to try and communicate with another species, and to gain insight by attempting to understand another creature. She has spent 30 years sculpting one subject---the horse.

12. Deborah makes as many as 12 horse sculptures a year. She makes them out of junk she finds. Notice that this horse sculpture looks like a line drawing. It is named "Rex" and is made from orange painted steel strips that she found in a junk yard.

13. Deborah said, "I never go out and look at my horses while I'm working. I carry them with me in my mind." These horses appear to be made from driftwood. Deborah knew that wood left outside would rot, so she had the wood cast in bronze at a foundry and then welded the wood-like bronze pieces together.

14. Here is Deborah Butterfield working in the foundry. She is applying patina to the outside of the bronze to make it look like wood.

15. Deborah said, "Every horse I make is different. It's like dancing with a new partner." She named this horse "Ferdinand." It is made from discarded industrial materials. She unified the horse sculpture by painting everything red.

16. In this horse named "Palma," Butterfield uses large pieces of metal that she finds. They are already painted, but are beginning to rust. Palma has the primary colors, red, yellow and blue.



17. Here we have a front and side view of a horse named "Joseph." Deborah says, "I want the viewer to actually be able to crawl into this horse shape and inhabit it and to perceive the world in a different way."

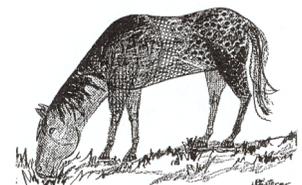
18. These students are sculpting horses like Butterfield. We will learn to draw them instead.

## CREATE:

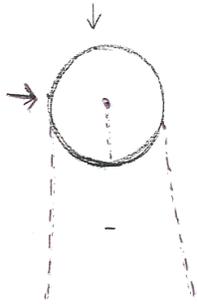
1. **Distribute materials.** Give students the horse study sheets and the horse drawing steps. Students should read it over while taking turns picking up their supplies: newsprint and crayons of neutral colors (black, white, gray and many browns). Using crayons instead of pencils keeps students from wasting time erasing. It helps to draw lightly with the dark crayon at first, then darken the important lines.

2. **Demonstrate with confidence.** It is important for the teacher to draw one step at a time while the students follow on their own papers. As a teacher-demonstrator, show the confidence you expect from students. If you draw a line you don't like, admit it and continue drawing more lines until you are satisfied. Assure students that added texture and cutting out the horse will eliminate unwanted lines.

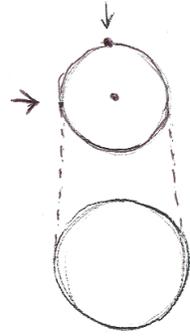
3. **Follow the 16 steps to draw horse.** Students use a black crayon to draw as the teacher demonstrates. The "horse studies" sheet is used for added information when drawing detail. Discuss real and implied texture before students use texture boards to rub texture on their horses.



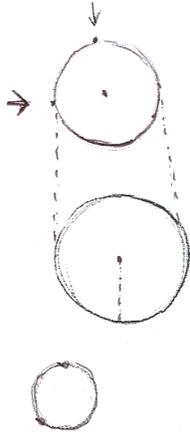




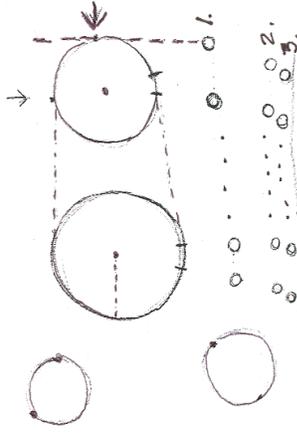
1. Position the horse on paper. Start from the back end of the horse. Measure 2 inches from the top and 2 inches from the side and draw the first circle the size of your fist.



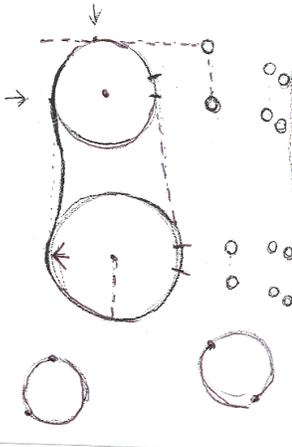
2. Place a dot in the center of the first circle and measure from the dot to the outside of the circle. This is the radius. Use the radius length for the distance between the two circles. The second circle must be taller and lower than the first circle.



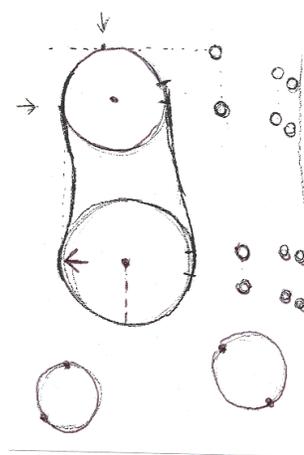
3. Place a dot in the second circle to measure radius. Use the radius to determine the distance from the body circle to where the head starts. Use the radius for the diameter of the head. Place the head high or low.



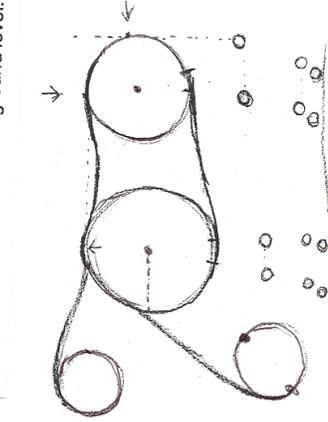
4. Position the first two leg joints of the back legs by making them a radius distance away. Joint #1 should also line up with the far side of the circle. The last joint by the hoof is very close and slanted forward. Use the radius to do the front legs as well. Line up the front legs with the back legs so they will be the same ground level.



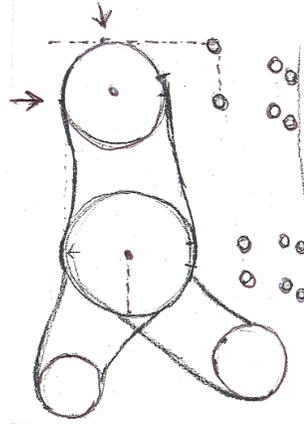
5. The line for the horse's back starts on the rear circle and slowly slopes down and comes up by the shoulder blade on the front circle.



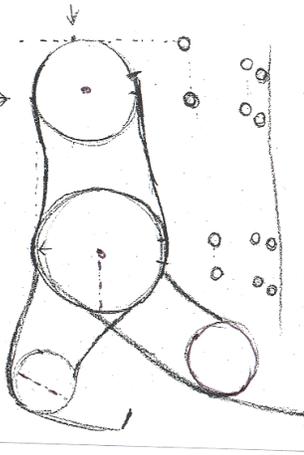
6. The line for the belly of the horse begins on the front circle and slopes up to the back circle.



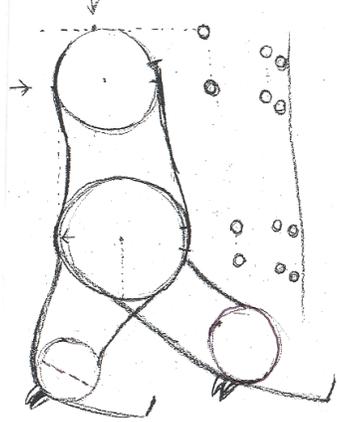
7. The neck begins on the top of the head circle and an arc continues a bit and slopes down to the shoulder blade on the large circle. Draw the neck for both the high and low head.



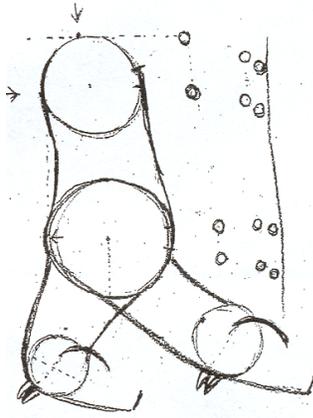
8. The underside of the neck begins at the head circle and slopes down or up to the body circle.



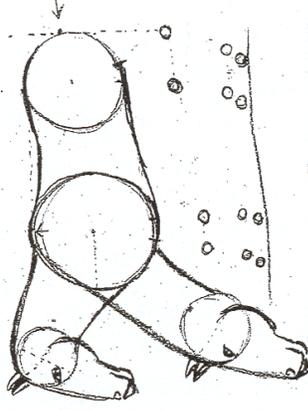
9. Measure the diameter of the head circle for the length of the head from the circle edge to the nose end. Extend the line from the circle to the end of the nose.



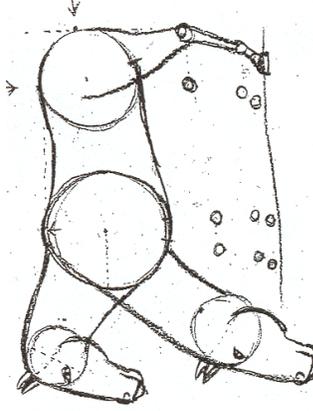
10. Add the ears at a diagonal slant.



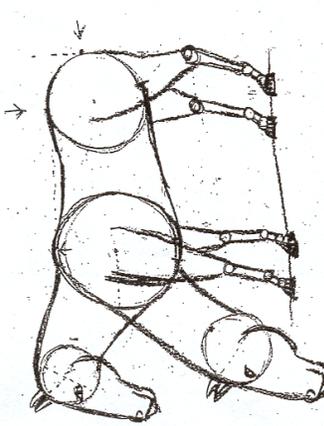
11. Draw the large jaw bone extending from the angle of the ears to below the circle.



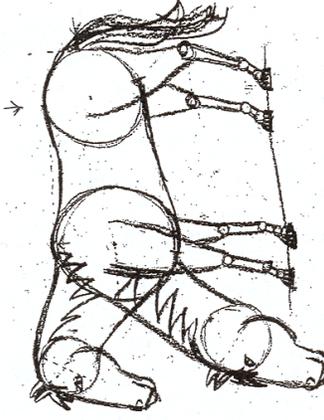
12. After the jaw bone curve, the line straightens, then curls around by the mouth. The tip of the nose has a "V" shape, and the nostril is a backwards "C."



13. Look at the muscle poster to see how the thigh muscle comes from inside the circle and curves down to the first joint circle. The right line comes from the outside circle, curves in an out to meet the first joint. The leg in back is drawn wide to narrow



14. Look at the front leg muscles and begin the leg line inside the front circle to meet the first leg joint. Draw the leg behind, going from wide to narrow.



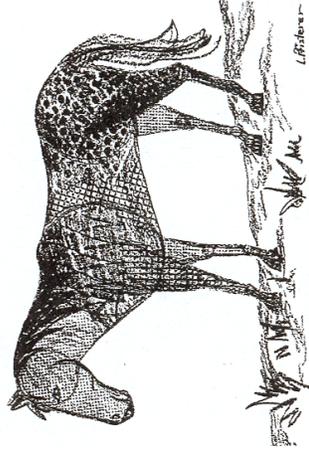
15. Next add the forelock, mane and the tail. Take care with the mane and tail because it helps to create a personality for the horse.



16. Pass out texture boards and rub texture with a crayon all over the entire horse.



17. Decide if you want one or two heads on your horse.



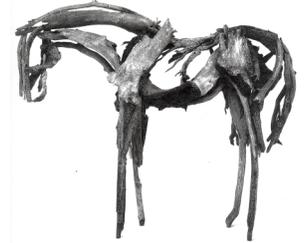
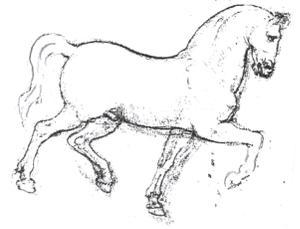
18. Carefully cut out the horse and glue it to a background paper. Continue drawing with the neutral colors, black, dark brown and light brown crayons to add the ground, and other things such as a fence, barn or what ever you choose.

## *Horse Studies*

### **With Leonardo da Vinci and Deborah Butterfield**

The horse sculptures of Renaissance man Leonardo da Vinci, and contemporary artist Deborah Butterfield were studied before students began the process of drawing their own horses.

Just as Leonardo used measurement and observation to draw his horses, the students used radius and diameter to help keep their horses in proportion. After sketching a horse, students rubbed texture on the horse body before cutting it out to collage.

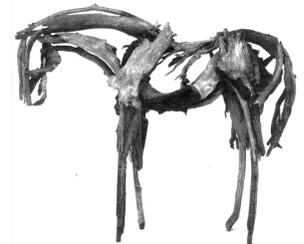
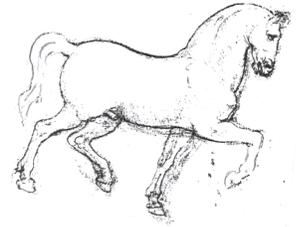


## *Horse Studies*

### **With Leonardo da Vinci and Deborah Butterfield**

The horse sculptures of Renaissance man Leonardo da Vinci, and contemporary artist Deborah Butterfield were studied before students began the process of drawing their own horses.

Just as Leonardo used measurement and observation to draw his horses, the students used radius and diameter to help keep their horses in proportion. After sketching a horse, students rubbed texture on the horse body before cutting it out to collage.



## *Horse Studies*

### **With Leonardo da Vinci and Deborah Butterfield**

The horse sculptures of Renaissance man Leonardo da Vinci, and contemporary artist Deborah Butterfield were studied before students begin the process of drawing their own horses.

Just as Leonardo used measurement and observation to draw his horses, the students used radius and diameter to help keep their horses in proportion. After sketching a horse, students rubbed texture on the horse body before cutting it out to collage.

