



OFFICE OF CIVIC EDUCATION INITIATIVES



Teacher Guide and Curriculum 9th Grade

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OFFICE OF CIVIC EDUCATION INITIATIVES

eXpressions™ Quick Guide for Teachers

Visit the Cleveland Clinic Office of Civic Education Initiatives home page at:

www.clevelandclinic.org/CivicEducation.

Click on the **Creative Learning** tab.

Select link to **eXpressions™** program page.

STEP 1: Register a class, organization, or group.

From the program page, click on the **Frequently Asked Questions (FAQs)** tab. From this page, click on the **Teacher Registration** tab. Complete and submit the required registration information online as instructed.

Note: Students will submit their own online registration form from the **Student Submission** tab on the same page.

Registrations and submissions are only accepted during the registration and submission time frames that coincide with the program schedule. Check the website for registration and submission deadlines.

STEP 2: Follow the Teacher Guide and Curriculum to help students create their pieces.

Locate an internship student: From the **FAQs** page, click on the **2008 Interns** tab.

OR

Access online research projects: From the OCEI web home page (www.clevelandclinic.org/CivicEducation), click on the **myRESEARCH™ OR mRi™: myRESEARCH illuminated** link.

To view artwork created by past winners: From the eXpressions™ page, click on the **Virtual eXpressions™ Exhibition**.



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STEP 3: Instruct students on how to submit their artwork.

To submit artwork: From the **FAQs** page, click on the **Student Submission** tab. Complete and submit the required registration information online as instructed.

Note: Students may submit works individually or independently as long as a supervising teacher registers for the program (**see instructions for teacher registration in Step 1 above**).

Registrations and submissions are only accepted during the registration and submission time frames that coincide with the program schedule. Check the website for registration and submission deadlines.

eXpressions™ Rules and Guidelines:

- **Hard copies submissions and online registration forms must be received by the deadline to be eligible for judging.**
- **Submissions (hard copies and online) received after the deadline will not be accepted.**
- **Submissions with incomplete information will not be accepted**

Note: Social security numbers must be provided to be eligible for cash awards (per Internal Revenue Service guidelines).

- **See full submission guidelines in the Teacher Guide and Curriculum.**

STILL HAVE MORE QUESTIONS???

Find answers to your questions about eXpressions™: From the program page, click on the **Frequently Asked Questions (FAQs)** tab and locate the question and response of interest.

Please visit the FAQ site first before contacting the Office of Civic Education Initiatives. Most questions are addressed in the FAQs. Thank you!



OFFICE OF CIVIC EDUCATION INITIATIVES

Cleveland Clinic Office of Civic Education Initiatives presents:

eXpressions™: The Intersection of Arts and Science

Teacher Guide and Curriculum

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Overview

Created by the Office of Civic Education Initiatives, **Cleveland Clinic eXpressions™: an intersection of art and science** utilizes the arts to engage high school students in the world of scientific research. Through project-based, peer-to-peer learning, art students interpret research conducted by classmates who have graduated from the Cleveland Clinic's Science Internship Program or Nurses of the Future Program. In addition to giving students a deeper, real-world understanding of art and science, the eXpressions™ program also promotes creativity, innovation, communication, and teamwork.

The Office of Civic Education Initiatives was established to fulfill the Cleveland Clinic's commitment to promote education throughout Northeast Ohio. In partnership with area schools, local businesses, and fellow nonprofit organizations, the Office creates innovative programs designed to enhance children's learning in the areas of math, science, health and wellness, the arts, and innovation.

Cleveland Clinic, located in Cleveland, Ohio, is a not-for-profit multispecialty academic medical center that integrates clinical and hospital care with research and education. Cleveland Clinic was founded in 1921 by four renowned physicians with a vision of providing outstanding patient care based upon the principles of cooperation, compassion and innovation. U.S. News & World Report consistently names Cleveland Clinic as one of the nation's best hospitals in its annual "America's Best Hospitals" survey. Approximately 1,500 full-time salaried physicians at Cleveland Clinic and Cleveland Clinic Florida represent more than 100 medical specialties and subspecialties. In 2005, 2.7 million patients came for treatment from every state and 100 countries. Cleveland Clinic's website address is www.clevelandclinic.org.



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9th Grade Level Lesson

Objective:

Students will interpret scientific research presented by a fellow student to design, plan, create, defend and self-evaluate an original piece of photographic artwork to reflect the research.

Ohio Standards (see Appendix B):

Visual Arts:

HCSC 1-4, 6-7
CEC 2-4
AR 1-5
VA/AR 1-2
CRA 3

Language Arts:

AV 1, 5-6
RA 1-3
WP 3-17
WA 4-6
WC 1-6
R 1, 7
C 1, 5, 8-10

Science:

SWK 3-5, 7-9

National Standards (see Appendix C):

Visual Arts: 1-6
Language Arts: 3-6, 11-12
Science: 1, 5
Physical Education and Health: 1, 7
Technology: 1-6

Vocabulary:

Symbolism- 1: The practice of representing things by means of symbols or of attributing symbolic meanings or significance to objects, events, or relationships. 2: A system of symbols or representations. 3: A symbolic meaning or representation. 4: Revelation or suggestion of intangible conditions or truths by artistic invention. 5: Symbolism The movement, theory, or practice of the late 19th-century Symbolists.

Materials:

Visuals of artwork used in class discussion about symbolism, butcher paper, marker, various art materials to be used to create any necessary objects or images the students need, digital camera, floppy disks, lighting for photographic images, use of a computer lab with Photoshop software, copies of critique paper assignment.

Procedure: (based on a 45/50 minute class period)

Day 1: An art criticism takes place the first 30 minutes of class.

Feldman Model-This form of criticism delays judgment and consists of four components:

1. Description-
 - a. Ask the students questions that lead them to only describe what they see. The students may tend to jump ahead, but it is important to keep them focused on describing the things they see. Make sure that no analyzing or judgment is made at this stage. An example of some of the questions to ask are as follows:
 - i. What colors do you see?
 - ii. What shapes do you see?
 - iii. What lines do you see?
 - iv. What color do you see the most of?
2. Formal Analysis-
 - a. Ask the students questions to get them to look at the composition and structure of the piece (any questions that address the elements of art and principles of design). It is at this stage that you can also teach a new concept. Some examples of questions to be asked at this stage are as follows:
 - i. Do you see any primary colors?
 - ii. What is the center of interest?
 - iii. What do you see first (focal point)?
 - iv. Do you see any samples of repetition used?

- v. What kind of lines do you see?
 - vi. Are there any patterns present?
 - vii. Does the artwork appear to be balanced?
3. Interpretation-
- a. Ask the students questions about what they see (their personal feelings about the piece of artwork and what is behind those feelings).
4. Judgment and informed preference-
- a. At this time, tell the students the title/name of the piece of artwork, the year it was created, the name of the artist, and the concrete background of the artwork and the artist. Be sure not to impose your personal interpretation.
 - b. Ask the students the following questions:
 - i. What do you think the artist is trying to say in his or her artwork?
 - ii. Is the artist's intent clear?
 - iii. Would you put this piece of artwork in your bedroom?
 - iv. Stay away from asking whether the artwork is good or bad. You want the students to think beyond a simple good or bad response.

Tom Anderson Model-This model uses the Feldman Model adding the following stage:

5. Function-
- a. Ask the students questions to help them uncover a purpose for the art. It is important to help the students understand the art in context to understand its purpose. An example: take an African mask and put it in a museum where it is viewed out of context, so you put it back in its context to get a truer comprehension of the piece.
 - i. Discuss the historical events, social, cultural, political or religious issues, cultural values or traditions present within the time period the piece of artwork was created.
 - ii. Discuss how the values, traditions, historical events and issues present within society during the creation of the piece of artwork affected the artists' creation of the artwork.
 - iii. Discuss how this same piece of artwork may look if created by a current artist. How would a current artist express the same message? What changes in artistic factors, history and society would influence the current artist's piece of artwork?
 - b. It is at this time that you can also introduce the concept of symbolism found within artwork.

Using a photographic image for this criticism would be effective. Some photographic artists who are known for their historical images are: Matthew Brady, Alfred Stieglitz, Imogen Cunningham, Man Ray, Dorothea Lange, Margaret Bourke-White, Gordon

Parks, and Ansel Adams. Two websites you may find useful are:
www.artcyclopedia.com and www.nationalgalleries.org.

Day 2: Science or Nursing Intern presents research and findings to art students. A question and answer session follows.

Recommendation: Have a school science teacher present during the presentation to help clarify vocabulary and ideas presented.

Homework: Students are to come up with a list of at least 15 words used to describe the research presented. Have students tap into personal experiences, social issues or pressures, and the experience of family members and friends to explore real-world connections to the research topic. Students are to also utilize the concepts covered in the previous class period about symbolism to generate a list.

Day 3: A graphic organizer of student thoughts and ideas is created using the list of words each student created as homework. Students present their word list one by one to the class. A large sheet of butcher paper is hung up on the wall (Inspiration software or the use of a Smart Board also works well if your classroom is so equipped). A student is chosen as the recorder and given a dark colored marker. One by one, each student presents his or her word list to the class. After all of the ideas and words are presented, a class discussion of the ideas presented follows and additional ideas are recorded. The graphic organizer remains on the classroom wall for future reference and inspiration.

Recommendation: Have the same school science teacher present during the discussion to confirm that the ideas are on target and to answer additional questions that have arisen.

Homework: Using their list of words, and the ideas generated in the class discussion, students are to create a minimum of 10 visual image ideas/drawings to represent the research presented. The images are to be a combination of items (symbolic still-life) to symbolize the research.

Day 4: Students present their ideas to the class for their symbolic photograph and target in on the idea they feel most drawn to exploring further. Feedback is given by classmates and the teacher.

Homework: Utilizing the class feedback, students further develop their chosen idea by creating a minimum of 10 additional designs to represent the same visual message they have chosen, with the generation of a final design idea as the goal. In the development drawings, students are to focus on the clear communication of their message to the viewer.

Recommendation: Ask the Science or Nursing Intern to be present for the next class period.

Day 5: Students present their development drawings and ideas to the class and target in on their chosen final idea for their photograph. Feedback is given by classmates, the teacher and the intern. The feedback is to focus around the success rate of the communication of the intended message to the viewer.

Homework: Utilizing the class feedback, students finalize the design of their photographic image. Students begin to gather and bring in objects they need to create their symbolic still-life image.

Day 6-8: Students create any necessary objects/images needed for their symbolic still-life.

Homework: Students continue to gather and bring in objects they need to create their symbolic still-life image.

Day 9: Students present their piece to the class at its current stage of development. A class critique takes place in which the focus revolves around the success rate of the composition of the symbolic still-life and its relationship to its visual purpose/message.

Day 10: Students make adjustments to their still-life based on the feedback received during the previous class discussion.

Recommendation: Check out a digital camera and plenty of disks for your next class period. Schedule the use of a computer lab with Photoshop software available.

Day 11: Have a short class discussion on the effects of lighting to communicate a mood or feeling. Demonstrate the proper use of the digital camera. Each student then takes a digital photograph of his or her symbolic still-life. Have the students save their image onto a disk if possible. If the images need to be saved onto a memory stick, have your technology person assist you in downloading the images into a folder.

Day 12-13: The class meets in a computer lab. Each student opens his or her image into Photoshop. There are numerous ways in which the students can manipulate their images using the Photoshop software.

Homework: Students write their artist statement for their finished project. The artist statement is to be typed, written in paragraph format and is to include the answers to the following questions:

- What was the intention (the message you are trying to communicate to your viewer) of your piece of artwork?
- Where did you get inspiration for your idea (specific artist, etc.)?
- How did you use the elements of art and principles of design to communicate your message throughout your piece of artwork?
- How successful is your finished piece of artwork?
 - Does it communicate your message successfully?
 - How did the required use of photography influence your artistic decisions?
 - Would another medium work better to make your piece more successful?
- Given the time, what would you change about your final project to make it more successful?

Recommendation: Ask the Science or Nursing Intern to be present for the next class period.

Day 14: Class critique-Part I. All student work is displayed with an artist statement and a number. An identical (2) sets of numbers are placed in a bowl. Students are randomly asked to draw (2) numbers from the bowl (making sure that they don't draw their own number or two identical numbers). Once all of the numbers are drawn, students are given (2) copies of the attached critique handout. They must then locate the pieces that match the numbers drawn, and must spend the remainder of the class period taking notes on the critique handouts, answering the questions for each of the pieces.

Homework: Using the notes taken during class, students type a formal critique response for each of the pieces. Students also prepare note cards for their formal critique presentation.

Day 15: Class Critique-Part II. The teacher collects the critique papers. A formal class critique takes place the remainder of the class period. Each student gets up in front of the class, one at a time, and explains his or her piece to the class. The goal is for each student to explain his or her piece in its entirety, from conceiving the idea to completing the finished piece of art. In their talk they are to explain the medium chosen and their intention, addressing all elements and principles of design and the overall success of the piece. Each student does this within 5 minutes time. Once the student is done presenting, the class is then allowed to ask the artist questions for clarification and to offer constructive feedback. This feedback is to focus around what works well within the piece of artwork, what detracts from the success of the piece, and suggestions are offered on how to make the piece more successful.

Day 16: Class Critique-Part II continues until all students have presented.

Day 17: The teacher has made a copy of each of the student critique papers (being sure to cover up the critic's name), and hands the copies to the original artists (keeping the original critique papers for grading purposes). Students are given a week to resubmit their final project for a final grade if they choose to incorporate any of the feedback given.

Assessment:

A rubric including the following categories is used:

- Planning (before and during the project);
- Use of Time (in and out of class);
- Use of Materials;
- Use of Technique; and
- Artist Statement.

APPENDIX A

The following is an art lesson concerning the essence of a piece of fine artwork provided in the format of a dialogue. The dialogue presented is between a teacher and her student(s). It is based on the writing Poetry, Language, Thought by Martin Heidegger (1971). The dialogue focuses specifically on the chapter within the writing titled The Origin of the Work of Art.

T: Good morning, class.

S: Good morning.

T: Class, for the past few weeks we have been studying the origin of fine art. Today, we are going to learn about the essence of fine art.

S: What does essence mean?

T: When talking about fine art, the essence of a piece of fine art is what makes up the particular nature of a piece of fine art, and distinguishes it from all other pieces of fine art. It is the essence of the piece of fine art that speaks to us and tells us what the piece of fine art is.

S: But how can a piece of fine art say anything to us? It can't talk.

T: Are you sure about that?

S: I think so.

T: Does a piece of fine art have to talk in order to say something to us?

S: I'm not sure.

T: Well, would you like to take a closer look and find out if a piece of fine art can say something to us?

S: Sure, but how can we do that?

T: That is a very good question. Let's ask a piece of fine art itself.

S: But we already said that a piece of fine art could not talk. How are we going to ask the piece of fine artwork itself?

T: By looking at the allegory present within a piece of fine artwork.

S: What is an allegory?

T: An allegory, or *allogoreuei*, is an expression of truth or generalizations through the use of symbolic figures and actions about human existence. In other words, an allegory is a symbolic representation that manifests something other. The term for this in Greek is *sumballein*, or symbol, which means an artistic imitation, used as a method of revealing intangible truth. It also means a system of symbols or representations. The allegory and symbol bring together the painting that is made with something else. It is the allegories and symbols that speak to us.

S: Which piece of fine art work are we going to talk to?

T: We will be looking at the allegory and symbols present in one of Vincent Van Gogh's paintings. (The teacher brings out Van Gogh's painting of peasant shoes and posts it at the front of the class). What do you see in this painting?



Vincent van Gogh, *A Pair of Shoes*, 1885,
Van Gogh Museum, Amsterdam,
(Vincent van Gogh Foundation)

Copyright © 2006 National Gallery of Art,
Washington, DC

S: Just a painting of a pair of old shoes.

T: Do you see anything else?

S: Well, I think the shoes are sitting on a floor or the ground somewhere, but you can't tell what floor.

T: What do you mean you can't tell what floor?

S: There is nothing else in the painting to tell you where the shoes are. Like, if the shoes were sitting on a bedroom floor you might see a bed or clothing lying next to them to tell you that they were sitting on a bedroom floor.

T: Do you think the shoes are inside or outside?

S: I think that they are inside.

T: Why is that?

S: Because there is no sunshine and grass.

T: How do you know that?

S: Because the colors that Van Gogh used to paint the shoes are all browns and brownish yellows. Grass is green, sunshine is bright yellow, and the sky is blue. If the shoes were outside he would probably have painted them on some grass, and possibly with some sky and sunshine above them.

T: Very good. Can you tell me anything more about the shoes?

S: No.

T: I think there is still more that the shoes want to tell us about themselves. Let's take a closer look at the painting.

S: OK.

T: Whom do you think the shoes belonged to?

S: Probably someone poor.

T: Why do you think that?

S: Because they are all worn out and look old. People that are rich don't wear shoes that are old and all worn out. They throw out old worn shoes, or give them to the poor and buy a new pair of shoes for themselves to wear. Rich people usually have more than one pair of shoes also, since they can afford to buy them. Poor people can't afford to buy new shoes all the time, and they usually only have one or two pair.

T: Good. What kind of shoes would a wealthy person wear?

S: They would probably wear clean fancy shoes, not shoes like that. Those are old boots.

T: So, you think that a poor person wore the boots?

S: Yes.

T: In Van Gogh's time a poor person was called a peasant. Do you think the peasant owner of the boots was a man or a woman?

S: Probably a woman.

T: Why do you think that?

S: Because they look like they would fit a small foot, and men usually have pretty big feet.

T: OK. What do you think the peasant woman used the boots for?

S: Probably everything, but mostly for work.

T: Why do you think that?

S: Because poor people, or peasants, have to work a lot.

T: What kind of work do you think this peasant woman did?

S: It's hard to tell, since there is nothing around the boots to give us any clues as to what the owner used them for.

T: Is that true? Let's look a little harder into the painting.

S: OK.

T: Think back to history class. When Van Gogh was alive what kind of work did peasants do?

S: Farming.

T: Good. Now you already said that you felt that a peasant woman owned the shoes. What kind of work do you think she did?

S: Farming?

T: Most likely. What kind of shoes would she need to wear to farm?

S: Sturdy shoes.

T: Are these a pair of sturdy shoes?

S: Yes.

T: How can you tell?

S: Well, the shoes are very heavy looking.

T: What makes you say that?

S: Because the boots look like they are made of leather and come above the ankles. I have a pair of hiking boots at home that is made of leather and come above my ankle and they are heavy.

T: Why would the peasant woman want a pair of sturdy shoes?

S: Because she would need them when she is in the fields working.

T: What is in the fields?

S: There could be anything in the fields along with the plants she is farming.

T: But why would she need sturdy shoes?

S: Her feet would need to be protected by sturdy shoes so that she would not hurt herself while she was working.

T: How long would she work in the fields?

S: My grandpa told me that farmers used to work in the fields from sun up to sun down.

T: That was very often true. How many hours is that?

S: Well, in the summer that could be up to about fifteen hours a day.

T: That is correct.

S: Gosh that's a long time.

T: It sure is. How would you feel if you had to work that long of a day?

S: I'd be bushed. I bet her feet hurt a lot.

T: Why do you think that?

S: Well, my feet hurt after standing on them just a few hours. If I had to stand and work in the fields a whole day my feet would surely hurt.

T: That may be true, but how does the painting tell you that the peasant woman worked long hours?

S: Well, if you look into the inside of the boots you can see that the threads are all worn out, and so is the thread on the sole.

T: Good. What does the worn out thread tell you?

S: That she walked in the shoes a lot.

T: And how do you think the peasant woman's feet felt after walking in her shoes from sun up to sun down?

S: Probably very tired.

T: Good. How do you think the peasant woman got to the fields?

S: She probably had to walk.

T: Why do you think that?

S: Well, other than the tread on her boots being worn, my grandpa told me that when he was little most people had to walk everywhere, especially if they were poor because they did not make enough money to buy a car. If this woman was

poor, like we think she was, she probably didn't have a car.

T: So if the peasant woman had to walk to and from the fields, how do you think she felt at the end of the day while walking home from the fields?

S: Probably very tired.

T: And how do you think the peasant woman's feet felt on her walk home from the fields?

S: Probably very heavy, like she was dragging cement blocks.

T: Why is that?

S: Because she worked so long and so hard in the fields and then had to walk home at the end of a long day.

T: Good. So if she had to work from sun up to sun down and walk to and from the fields every day, what does that tell you about the peasant woman's shoes?

S: I don't know.

T: Do you think that her shoes were very important to her?

S: Yes.

T: Why?

S: Because she relied on the shoes.

T: Why did the peasant woman rely on her shoes?

S: Well, my mom makes me wear shoes when I go outside so that I don't get sick.

T: Good. Why else would the peasant woman rely on her shoes?

S: Well, she would rely on her shoes to protect her feet while she was walking to and from the fields, and also to protect her feet while she was working in the fields.

T: Good. Then what would happen if the peasant woman's shoes did not do their job?

S: She may not be able to work in the fields.

T: And why is that?

S: If her shoes were not doing their job then the peasant woman could hurt herself and not be able to work.

T: And why would the peasant woman not want to get sick or hurt herself?

S: Because she would not be able to work.

T: And why is it important that she be able to work?

S: So that she could make money.

T: And why is making money so important?

S: To pay for what she needs to live on.

T: But what did she need to live on?

S: Food, shelter, and clothing.

T: Which of the three are the most important?

S: Food.

T: And why is food the most important?

S: Because your body needs it.

T: And what happens if your body does not get food?

S: You would die.

T: How does the peasant woman get her food?

S: From working in the fields to earn money.

T: Then is it important that the peasant woman be able to rely on her shoes?

S: Oh yes, very much.

T: Do you think the peasant woman was able to rely on her shoes every morning and all through the day?

S: Yes.

T: And how do we know that the peasant woman was able to rely on her shoes?

S: Because the shoes are sturdy and worn, but not all torn up. They are still in one piece.

T: Good. Let's review what we have just discussed. You said that it was important for the peasant woman to be able to rely on her shoes. She relies on her shoes to take her safely to and from the fields. Her shoes allow her to work in the fields safely by protecting her feet while she works. Her shoes also keep her healthy by protecting her feet. Through working in the fields the peasant woman provides herself with food, shelter, and clothing. Based on the appearance of the shoes in the painting, you stated that the peasant woman was able to rely on her shoes. How do you think the reliability the peasant woman had in her shoes made her feel?

S: Probably pretty good.

T: Why do you say that?

S: Well, if I was poor, and I knew that I was going to at least be able to get to and from work every day I would be happy.

T: Yes, but why?

S: Because I would be making money.

T: But why is that important? We touched on it earlier.

S: So I could buy things.

T: Yes, but what things?

S: Food, shelter, and clothing.

T: Exactly. And why is being able to purchase food, shelter, and clothing important?

S: So I wouldn't die.

T: Yes. And knowing that you would be able to buy yourself food, shelter, and clothing would make you feel how?

S: Great.

T: Why?

S: Because I would at least know that I was going to be able to eat for another day, have a place to sleep, and have clothes on my back.

T: And why is that important?

S: Because I would have piece of mind that I was not going to die, at least not for another day.

T: Do you think that the peasant woman went to a store to buy her food?

S: Maybe.

T: Maybe she did. But, if she did not have a store to go to, where did she get her food?

S: She was probably growing some of her own food in the fields that she farmed.

T: Good. So her shoes let her go to work to grow her food to feed herself. Would growing her own food feed her for more than just a day?

S: Yes.

T: How do you know?

S: Because a field of corn or potatoes could feed a whole bunch of people for a long time.

T: Exactly. So why would it be important that the peasant woman be able to rely on her shoes?

S: Because through her reliability in her shoes she is provided with a sense of security.

T: What kind of security is the peasant woman provided with through her reliability in her shoes?

S: A sense of security within her world.

T: How is that?

S: Her shoes provide her with the security and confidence of knowing that she

would at least be able to work another day in the fields, which in turn allowed her to at least feed herself for another day. Because of her shoes, she would not fall fate to death, at least for another day.

T: So you are saying that the peasant woman had a sense of security and confidence in her existence through her shoes. Is that correct?

S: Yes. Her shoes were a summary of her world.

T: Excellent. So, let's summarize what we have discussed. You stated that even though you can not determine where the shoes sit, the shoes belong to a peasant woman. The woman works long hours in the fields in order to provide her with the necessities to sustain her life. She relies on her shoes, and in return her shoes provide her with a confidence and security that her needs will be met through their reliability. Does that pretty much sum it up?

S: Yes.

T: When you look at Van Gogh's painting now do you still believe that the painting is just a painting of an old pair of shoes?

S: No.

T: Why not?

S: Because the painting spoke to us.

T: And what did the painting say to you?

S: The painting told us the story of the shoes.

T: And what is the story of the shoes?

S: The intangible something else of the painting.

T: And how did the painting tell you of this intangible something else?

S: Through the use of allegory and symbols.

T: And what does an allegory and symbol tell us of the piece of fine artwork?

S: It tells us of the piece of fine artwork's essence.



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T: Wonderful. Class dismissed.

APPENDIX B

STATE OF OHIO BENCHMARKS AND CONTENT STANDARDS: VISUAL ARTS, LANGUAGE ARTS, SOCIAL STUDIES, AND SCIENCE

STATE OF OHIO VISUAL ARTS BENCHMARKS AND CONTENT STANDARDS

Historical, Cultural and Social Contexts

Students understand the impact of visual art on the history, culture and society from which it emanates. They understand the cultural, social and political forces that, in turn, shape visual communication and expression. Students identify the significant contributions of visual artists to cultural heritage. They analyze the historical, cultural, social and political contexts that influence the function and role of visual art in the lives of people.

Benchmark A

Explain how and why visual art forms develop in the contexts in which they were made.

Benchmark C

Explain ways in which selected, contemporary works of art relate to the themes, issues and events of their contexts.

Benchmark D

Select a culture and create an original work of art that demonstrates understanding of a historical, social or political issue of the culture.

9th Grade

1. Discuss the roles of visual art forms within social contexts.
2. Explain the relationship of a selected work of art to the time period in which it was created.
3. Research and describe the cultural values in various traditions that influence contemporary art media.
4. Compare and contrast the stylistic characteristics of visual art from one historical period with those of the previous time period.
6. Explain how art history interrelates with the study of aesthetics, criticism and art making.

7. Analyze major changes to selected artistic styles in art history and determine the historical, social, political or artistic factors that influenced the change.

10th Grade

6. Describe various sources visual artists use to generate ideas for artworks.

11th Grade

1. Research and report on the historical, cultural, social or political foundations of selected art forms.
2. Analyze a work of art and explain how it reflects the heritages, traditions, attitudes and beliefs of the artist.
3. Explain how issues of time, place and culture influence trends in the visual arts.
5. Research an artist or work of art of personal interest and write about the historical, social, cultural or political factors influencing the artist or the work.
6. Explain the process used to acquire and use knowledge from art history for art production.

12th Grade

1. Understand and apply knowledge of art history in oral and written discussions about selected works of art.
2. Identify and compare the relationships between artworks on the basis of history, culture and aesthetic qualities.
4. Determine the influence of community or cultural values on the choices artists make when creating art.
5. Incorporate knowledge and ideas from art history to produce innovative projects.

Creative Expression and Communication

Students create artworks that demonstrate understanding of materials, processes, tools, media, techniques and available technology. They understand how to use art elements, principles and images to communicate their ideas in a variety of visual forms.

Benchmark A

Demonstrate mastery of materials, concepts and personal concentration when creating original artworks.

Benchmark B

Create expressive artworks that demonstrate a sense of purpose and understanding of the relationship among form, materials, techniques and subject matter.

Benchmark C

Engage in ongoing assessment to revise and improve artworks and to produce a portfolio of works.

9th Grade

2. Use available technology as a tool to explore art techniques and to express ideas.
3. Make informed choices in the selection of materials, subject matter and techniques to achieve certain visual effects.
4. Explain artistic processes from conceiving an idea to completing a work of art.

10th Grade

2. Evaluate their choices of compositional elements in terms of how those choices affect the subject matter of the work.
5. Trace the origin of symbolism, imagery and metaphor in art and demonstrate the use of these visual devices in their artworks.
6. Use criteria to revise works-in-progress and describe changes made and what was learned in the process.

11th Grade

1. Create original works of art that demonstrate increased complexity and skill and use a variety of two-dimensional and three-dimensional media.
2. Create artwork that interprets a theme, idea or concept and demonstrates technical skill and the perceptive use of visual art elements.
3. Create artworks that demonstrate a range of individual ideas, subject matter and themes with at least one idea explored in depth.
7. Use self-assessment to reflect on the effectiveness of their processes and choice of subject matter, materials and techniques to achieve their intent.

12th Grade

1. Integrate the elements of art and principles of design using a variety of media to solve specific visual art problems and to convey meaning.

2. Solve visual art problems that demonstrate skill, imagination and in-depth understanding of media and process.

Analyzing and Responding

Students identify and discriminate themes, media, subject matter and formal technical and expressive aspects in works of art. They understand and use the vocabulary of art criticism to describe visual features, analyze relationships and interpret meanings in works of art. Students make judgments about the quality of works of art using the appropriate criteria.

Benchmark A

Apply the knowledge and skills of art criticism to conduct in-depth analyses of works of art.

Benchmark B

Explain how form, subject matter and context contribute to meanings in works of art.

Benchmark C

Critique their own works, the works of peers and other artists on the basis of the formal, technical and expressive aspects in the works.

9th Grade

1. Apply various methods of art criticism to analyze and interpret works of art.
2. Explain how form and media influence artistic decisions.
3. Research and describe the work of an artist on the basis of how the artist's choice of media and style contribute to the meaning of the work.
4. Use appropriate vocabulary to define and describe techniques, materials and methods that artists use to create works of art.
5. Analyze and describe the visual aspects of their own artworks and the work of others.

10th Grade

1. Analyze the way media, technique, compositional elements and subject matter work together to create meaning in selected artworks.
2. Apply methods of art criticism in writing and speaking about works of art.
3. Understand how the structure and composition of an art form relate to its purpose.

11th Grade

1. Describe the relationship between the content or ideas in artworks and the artist's use of media and compositional elements.
2. Explain how visual, spatial and temporal concepts integrate with content to communicate meaning in artwork.
3. Apply peer review and critique processes to a student exhibition.

12th Grade

1. Analyze and interpret the way in which the theme or meaning in an artwork expresses a social, political or cultural comment and use examples from the artwork to support the interpretation.
3. Construct a rationale for the merit of a specific work of art, using work that falls outside their conceptions of art.

Valuing the Arts/Aesthetic Reflection

Students understand why people value visual art. They present their beliefs about the nature and significance of selected artworks and the reasons for holding these beliefs. Students reflect on and respect diverse points of view about artworks and artifacts.

Benchmark A

Communicate how an aesthetic point of view contributes to the ideas, emotions and overall impact of personal artworks and the works of others.

Benchmark B

Identify and analyze a variety of viewpoints on aesthetic issues and themes in visual art and develop a personal point of view.

Benchmark C

Judge the merit of selected artworks and provide the aesthetic basis for their positions.

9th Grade

1. Distinguish the aesthetic qualities in works of art and determine how the artist achieved the effect.
2. Demonstrate logical reasoning when arguing the merit of a selected work of art and discuss the arguments put forward by others.

10th Grade

1. Articulate how individual beliefs, cultural traditions and current social contexts influence responses to the meanings in works of art.
2. Formulate generalizations about the value of art from their experiences making and responding to art.

11th Grade

1. Explain how the value of a work of art is affected by the manner in which it is exhibited.
2. Analyze how society influences the interpretation of works of art.
4. Compare and contrast responses to works of visual art on the basis of how well the works communicate intent and purpose.
5. Explain how the context in which an artwork is viewed influences the way it is perceived and judged.

12th Grade

1. Compare the ways in which the emotional impact of a specific artwork affects the interpretation.
3. Demonstrate the ability to form and defend their judgments about the merits and significance of works of art.
4. Research and compare the reviews of different art critics of the same work of art.

Connections, Relationships and Applications

Students connect and apply their learning of visual art to the study of other arts areas and disciplines outside the arts. They understand relationships between and among concepts and ideas that are common across subjects in the curriculum. Students recognize the importance of lifelong learning and experience in visual art.

Benchmark B

Formulate and solve a visual art problem using strategies and perspectives from other disciplines.

9th Grade

3. Research and provide examples that show the relationship of visual art to other subjects in the curriculum.

10th Grade

4. Explain commonalities between visual art and other disciplines.

11th Grade

1. Identify ways in which culture has influenced the work of contemporary artists.
2. Research and explain the relationships between specific artworks and major historical events.
3. Research and demonstrate the relationships between visual art and other disciplines.

12th Grade

2. Analyze the cultural influences on art in America today.
3. Select interdisciplinary visual art projects for a portfolio and write a description of the process.

STATE OF OHIO LANGUAGE ARTS BENCHMARKS AND CONTENT STANDARDS**Acquisition of Vocabulary**

Students acquire vocabulary through exposure to language-rich situations, such as reading books and other texts and conversing with adults and peers. They use context clues, as well as direct explanations provided by others, to gain new words. They learn to apply word analysis skills to build and extend their own vocabulary. As students progress through the grades, they become more proficient in applying their knowledge of words (origins, parts, relationships, meanings) to acquire specialized vocabulary that aids comprehension.

9th and 10th Grade**Benchmark A**

Use context clues and text structures to determine the meaning of new vocabulary.

Benchmark E

Apply knowledge of roots and affixes to determine the meanings of complex words and subject area vocabulary.

Benchmark F

Use multiple resources to enhance comprehension of vocabulary.

11th and 12th Grade**Benchmark A**

Verify meanings of words by the author's use of definition, restatement, example, comparison, contrast and cause and effect.

Benchmark D

Apply knowledge of roots and affixes to determine the meanings of complex words and subject area vocabulary.

Benchmark E

Use multiple resources to enhance comprehension of vocabulary

9th Grade

1. Define unknown words through context clues and the author's use of comparison, contrast and cause and effect.
5. Use knowledge of Greek, Latin and Anglo-Saxon roots, prefixes and suffixes to understand complex words and new subject-area vocabulary (e.g., unknown words in science, mathematics and social studies).
6. Determine the meanings and pronunciations of unknown words by using dictionaries, thesauruses, glossaries, technology and textual features, such as definitional footnotes or sidebars.

10th Grade

5. Use knowledge of Greek, Latin and Anglo-Saxon roots, prefixes and suffixes to understand complex words and new subject-area vocabulary (e.g., unknown words in science, mathematics and social studies).
6. Determine the meanings and pronunciations of unknown words by using dictionaries, thesauruses, glossaries, technology and textual features, such as definitional footnotes or sidebars.

11th Grade

1. Recognize and identify how authors clarify meanings of words through context and use of definition, restatement, example, comparison, contrast and cause and effect to advance word study.
4. Use knowledge of Greek, Latin and Anglo-Saxon roots, prefixes and suffixes to understand complex words and new subject-area vocabulary (e.g., unknown words in science, mathematics and social studies).
5. Determine the meanings and pronunciations of unknown words by using dictionaries, thesauruses, glossaries, technology and textual features, such as definitional footnotes or sidebars.

12th Grade

1. Recognize and identify how authors clarify meanings of words through context and use of definition, restatement, example, comparison, contrast and cause and effect to advance word study.
4. Use knowledge of Greek, Latin and Anglo-Saxon roots, prefixes and suffixes to understand complex words and new subject-area vocabulary (e.g., unknown words in science, mathematics and social studies).
5. Determine the meanings and pronunciations of unknown words by using dictionaries, thesauruses, glossaries, technology and textual features, such as definitional footnotes or sidebars.

Reading Process: Concepts of Print, Comprehension Strategies and Self-Monitoring Strategies

Students develop and learn to apply strategies that help them to comprehend and interpret informational and literary texts. Reading and learning to read are problem solving processes that require strategies for the reader to make sense of written language and remain engaged with texts. Beginners develop basic concepts about print and how books work. As strategic readers, students learn to analyze and evaluate texts to demonstrate their understanding of text. Additionally, students learn to self-monitor their own comprehension by asking and answering questions about the text, self-correcting errors and assessing their own understanding. They apply their strategies effectively to assigned and self-selected texts read in and out of the classroom.

Benchmark A

Apply reading comprehension strategies to understand grade-appropriate texts.

Benchmark B

Demonstrate comprehension of print and electronic text by responding to questions.

Benchmark C

Use appropriate self-monitoring strategies for comprehension.

11th Grade

1. Apply reading comprehension strategies, including making predictions, comparing and contrasting, recalling and summarizing and making inferences and drawing conclusions.
2. Answer literal, inferential, evaluative and synthesizing questions to demonstrate comprehension of grade appropriate print texts and electronic and visual media.
3. Monitor own comprehension by adjusting speed to fit the purpose, or by skimming, scanning, reading on, looking back, note taking or summarizing what has been read so far in the text.
5. Independently read books for various purposes.

12th Grade

1. Apply reading comprehension strategies, including making predictions, comparing and contrasting, recalling and summarizing and making inferences and drawing conclusions.
2. Answer literal, inferential, evaluative and synthesizing questions to demonstrate comprehension of grade appropriate print texts and electronic and visual media.
3. Monitor own comprehension by adjusting speed to fit the purpose, or by skimming, scanning, reading on, looking back, note taking or summarizing what has been read so far in the text.
5. Independently read books for various purposes.

Reading Applications: Informational, Technical and Persuasive Text

Students gain information from reading for purposes of learning about a subject, doing a job, making decisions and accomplishing a task. Students need to apply the reading process to various types of informational texts, including essays, magazines, newspapers, textbooks, instructional manuals, consumer workplace documents, reference materials, multimedia and electronic resources. They learn to attend to text features, such as titles, subtitles and visual aids, to make predictions and build text knowledge. They learn to read diagrams, charts, graphs, maps and displays in text as sources of additional information. Students use their knowledge of text structure to organize content information, analyze it and draw inferences from it. Strategic readers



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learn to recognize arguments, bias, stereotyping and propaganda in informational text sources.

9th and 10th Grade

Benchmark A

Evaluate how features and characteristics make information accessible and usable and how structures help authors achieve their purpose.

Benchmark C

Analyze whether graphics supplement textual information and promote the author's purpose.

11th and 12th Grade

Benchmark D

Synthesize the content from several sources on a single issue or written by a single author, clarifying ideas and connecting them to other sources and related topics.

Benchmark E

Analyze an author's implicit and explicit philosophical assumptions and beliefs about a subject.

9th Grade

1. Identify and understand organizational patterns (e.g., cause-effect, problem-solution) and techniques, including repetition of ideas, syntax and word choices, that authors use to accomplish their purpose and reach their intended audience.
2. Critique the treatment, scope and organization of ideas from multiple sources on the same topic.
3. Analyze information found in maps, charts, tables, graphs, diagrams, cutaways and overlays.

10th Grade

1. Identify and understand organizational patterns (e.g., cause-effect, problem-solution) and techniques, including repetition of ideas, syntax and word choices, that authors use to accomplish their purpose and reach their intended audience.
2. Critique the treatment, scope and organization of ideas from multiple sources on the same topic.

3. Evaluate the effectiveness of information found in maps, charts, tables, graphs, diagrams, cutaways and overlays.

11th Grade

3. Analyze the content from several sources on a single issue, clarifying ideas and connecting them to other sources and related topics.
4. Distinguish between valid and invalid inferences and provide evidence to support the findings, noting instances of unsupported inferences, fallacious reasoning, propaganda techniques, bias and stereotyping.
5. Examine an author's implicit and explicit philosophical assumptions and beliefs about a subject.

12th Grade

3. Analyze the content from several sources on a single issue, clarifying ideas and connecting them to other sources and related topics.
4. Distinguish between valid and invalid inferences and provide evidence to support the findings, noting instances of unsupported inferences, fallacious reasoning, propaganda techniques, bias and stereotyping.
5. Examine an author's implicit and explicit philosophical assumptions and beliefs about a subject.

Writing Processes

Students' writing develops when they regularly engage in the major phases of the writing process. The writing process includes the phases of prewriting, drafting, revising and editing and publishing. They learn to plan their writing for different purposes and audiences. They learn to apply their writing skills in increasingly sophisticated ways to create and produce compositions that reflect effective word and grammatical choices. Students develop revision strategies to improve the content, organization and language of their writing. Students also develop editing skills to improve writing conventions.

9th and 10th Grade

Benchmark A

Formulate writing ideas and identify a topic appropriate to the purpose and audience.

Benchmark B

Determine the usefulness of organizers and apply appropriate pre-writing tasks.

Benchmark C

Use revision strategies to improve the style, variety of sentence structure, clarity of the controlling idea, logic, effectiveness of word choice and transitions between paragraphs, passages or ideas.

Benchmark D

Edit to improve sentence fluency, grammar and usage.

Benchmark E

Apply tools to judge the quality of writing.

Benchmark F

Prepare writing for publication that is legible, follows an appropriate format and uses techniques such as electronic resources and graphics.

11th and 12th Grade**Benchmark A**

Formulate writing ideas and identify a topic appropriate to the purpose and audience.

Benchmark B

Select and use an appropriate organizational structure to refine and develop ideas for writing.

Benchmark C

Use a variety of strategies to revise content, organization and style, and to improve word choice, sentence variety, clarity and consistency of writing.

Benchmark D

Apply editing strategies to eliminate slang and improve conventions..

Benchmark E

Apply tools to judge the quality of writing.

Benchmark F

Prepare writing for publication that follows an appropriate format and uses a variety of techniques to enhance the final product.

9th Grade

3. Establish and develop a clear thesis statement for informational writing or a clear plan or outline for narrative writing.
4. Determine a purpose and audience and plan strategies to address purpose and audience.
5. Use organizational strategies to plan writing.
6. Organize writing to create a coherent whole with an effective and engaging introduction, body and conclusion and a closing sentence that summarizes, extends or elaborates on points or ideas in the writing.
7. Use a variety of sentence structures and lengths.
8. Use paragraph form in writing, including topic sentences that arrange paragraphs in a logical sequence, using effective transitions and closing sentences and maintaining coherence across the whole through the use of parallel structures.
9. Use precise language, action verbs, sensory details, colorful modifiers and style as appropriate to audience and purpose and use techniques to convey a personal style and voice.
10. Use available technology to compose text.
11. Reread and analyze clarity of writing, consistency of point of view and effectiveness of organizational structure.
12. Add and delete information and details to better elaborate on stated central idea and more effectively accomplish purpose.
13. Rearrange words, sentences and paragraphs, and add transitional words and phrases to clarify meaning and achieve specific aesthetic and rhetorical purposes.
14. Use resources and reference materials (e.g., dictionaries and thesauruses) to select effective and precise vocabulary that maintains consistent style, tone and voice.
15. Proofread writing, edit to improve conventions (e.g., grammar, spelling, punctuation and capitalization), identify and correct fragments and run-ons and eliminate inappropriate slang or informal language.
16. Apply tools (e.g., rubric, checklist and feedback) to judge the quality of writing.
17. Prepare for publication (e.g., for display or for sharing with others) writing that follows a manuscript form appropriate for purpose, which could include such techniques as electronic resources, principles of design and graphics to enhance the final product.

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3. Establish and develop a clear thesis statement for informational writing or a clear plan or outline for narrative writing.
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11th Grade

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15. Proofread writing, edit to improve conventions (e.g., grammar, spelling, punctuation and capitalization), identify and correct fragments and run-ons and eliminate inappropriate slang or informal language.
16. Apply tools (e.g., rubric, checklist and feedback) to judge the quality of writing.
17. Prepare for publication (e.g., for display or for sharing with others) writing that follows a manuscript form appropriate for purpose, which could include such techniques as electronic resources, principles of design and graphics to enhance the final product.

Writing Applications

Students need to understand that various types of writing require different language, formatting and special vocabulary. Writing serves many purposes across the curriculum and takes various forms. Beginning writers learn about the various purposes of writing; they attempt to use a small range of familiar forms (e.g., letters). Developing writers are able to select text forms to suit purpose and audience. They can explain why some text forms are more suitable to a purpose than others and can begin to use content-specific vocabulary to achieve their communication goals. Proficient writers control effectively the language and structural features of a large repertoire of text forms. They deliberately choose vocabulary to enhance text and structure their writing according to audience and purpose.

9th and 10th Grade

Benchmark D

Use documented textual evidence to justify interpretations of literature or to support a research topic.

Benchmark E

Write a persuasive piece that states a clear position, includes relevant information and offers compelling evidence in the form of facts and details.

11th and 12th Grade

Benchmark B

Write responses to literature that provide an interpretation, recognize ambiguities, nuances and complexities and that understand the author's use of stylistic devices and effects created.

Benchmark C

Produce functional documents that report, organize and convey information and ideas accurately, foresee readers' problems or misunderstandings and include formatting techniques that are user friendly.

Benchmark D

Produce informational essays or reports that establish a clear and distinctive perspective on the subject, include relevant perspectives, take into account the validity and reliability of sources and provide a clear sense of closure.

Benchmark E

Use a range of strategies to elaborate and persuade when appropriate, including appeal to logic, use of personal anecdotes, examples, beliefs, expert opinions or cause-effect reasoning.

9th Grade

4. Write informational essays or reports, including research, that:
 - b. provide a clear and accurate perspective on the subject;
 - c. create an organizing structure appropriate to purpose, audience

- and context; and
 - d. support the main ideas with facts, details, examples and explanations from sources.
5. Write persuasive compositions that:
 - a. establish and develop a controlling idea; and
 - c. exclude irrelevant information.
 6. Produce informal writing for various purposes.

10th Grade

4. Write informational essays or reports, including research, that:
 - b. provide a clear and accurate perspective on the subject;
 - c. create an organizing structure appropriate to purpose, audience and context; and
 - d. support the main ideas with facts, details, examples and explanations from sources.
5. Write persuasive compositions that:
 - a. establish and develop a controlling idea; and
 - c. exclude irrelevant information.
6. Produce informal writing for various purposes.

11th Grade

2. Write responses to literature that:
 - a. advance a judgment that is interpretive, analytical, evaluative or reflective;
 - b. support key ideas and viewpoints with accurate and detailed references to the text or to other works and authors;
 - c. analyze the author's use of stylistic devices and express an appreciation of the effects the devices create;
 - d. identify and assess the impact of possible ambiguities, nuances and complexities within the text;
 - e. anticipate and answer a reader's questions, counterclaims or divergent interpretations; and
 - f. provide a sense of closure to the writing.
4. Write informational essays or reports, including research, that:
 - a. develop a controlling idea that conveys a perspective on the subject;
 - b. create an organizing structure appropriate to purpose, audience and context;
 - e. anticipate and address a reader's potential biases, misunderstandings and expectations; and
 - f. provide a sense of closure to the writing.
5. Write persuasive compositions that:

- a. articulate a clear position.
6. Produce informal writing for various purposes.

12th Grade

2. Write responses to literature that:
 - a. advance a judgment that is interpretive, analytical, evaluative or reflective;
 - b. support key ideas and viewpoints with accurate and detailed references to the text or to other works and authors;
 - c. analyze the author's use of stylistic devices and express an appreciation of the effects the devices create;
 - d. identify and assess the impact of possible ambiguities, nuances and complexities within text;
 - e. anticipate and answer a reader's questions, counterclaims or divergent interpretations; and
 - f. provide a sense of closure to the writing.
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 - a. develop a controlling idea that conveys a perspective on the subject;
 - b. create an organizing structure appropriate to purpose, audience and context;
 - e. anticipate and address a reader's potential biases, misunderstandings and expectations; and
 - f. provide a sense of closure to the writing.
5. Write persuasive compositions that:
 - a. articulate a clear position.
6. Produce informal writing for various purposes.

Writing Conventions

Students learn to master writing conventions through exposure to good models and opportunities for practice. Writing conventions include spelling, punctuation, grammar and other conventions associated with forms of written text. They learn the purpose of punctuation: to clarify sentence meaning and help readers know how writing might sound aloud. They develop and extend their understanding of the spelling system, using a range of strategies for spelling words correctly and using newly learned vocabulary in their writing. They grow more skillful at using the grammatical structures of English to effectively communicate ideas in writing and to express themselves.

Benchmark A

Use correct spelling conventions.

Benchmark B

Use correct punctuation and capitalization.

Benchmark C

Demonstrate understanding of the grammatical conventions of the English language.

9th Grade

1. Use correct spelling conventions.
2. Use correct capitalization and punctuation.
3. Use correct grammar clauses and phrases.
4. Use parallel structure to present items in a series and items juxtaposed for emphasis.
5. Use proper placement of modifiers.
6. Maintain the use of appropriate verb tenses.

10th Grade

1. Use correct spelling conventions.
2. Use correct capitalization and punctuation.
3. Use correct grammar clauses and phrases.
4. Use parallel structure to present items in a series and items juxtaposed for emphasis.
5. Use proper placement of modifiers.

11th Grade

1. Use correct spelling conventions.
2. Use correct capitalization and punctuation.
3. Use correct grammar (e.g., verb tenses, parallel structure, indefinites and relative pronouns).

12th Grade

1. Use correct spelling conventions.
2. Use correct capitalization and punctuation.
3. Use correct grammar (e.g., verb tenses, parallel structure, indefinites and relative pronouns).

Research

Students define and investigate self-selected or assigned issues, topics and problems. They locate, select and make use of relevant information from a variety of media, reference and technological sources. Students use an appropriate form to communicate their findings.

9th and 10th Grade

Benchmark A

Formulate open-ended research questions suitable for investigation and adjust questions as necessary while research is conducted.

Benchmark E

Communicate findings, reporting on the substance and processes orally, visually and in writing or through multimedia.

11th and 12th Grade

Benchmark A

Formulate open-ended research questions suitable for investigation and adjust questions as necessary while research is conducted.

Benchmark B

Compile, organize and evaluate information, take notes and summarize findings.

Benchmark C

Evaluate the usefulness and credibility of data and sources and synthesize information from multiple sources.

Benchmark D

Use style guides to produce oral and written reports that give proper credit for sources and include an acceptable format for source acknowledgement.

Benchmark E

Communicate findings, reporting on the substance and processes orally, visually and in writing or through multimedia.

9th Grade

1. Compose open-ended questions for research, assigned or personal interest, and modify questions as necessary during inquiry and investigation to narrow the focus or extend the investigation.
7. Use a variety of communication techniques, including oral, visual, written or multimedia reports, to present information that supports a clear position about the topic or research question and to maintain an appropriate balance between researched information and original ideas.

10th Grade

1. Compose open-ended questions for research, assigned or personal interest, and modify questions as necessary during inquiry and investigation to narrow the focus or extend the investigation.
7. Use a variety of communication techniques, including oral, visual, written or multimedia reports, to present information that supports a clear position about the topic or research question and to maintain an appropriate balance between researched information and original ideas.

11th Grade

1. Compose open-ended questions for research, assigned or personal interest, and modify questions as necessary during inquiry and investigation to narrow the focus or extend the investigation.
2. Identify appropriate sources and gather relevant information from multiple sources.
3. Determine the accuracy of sources and the credibility of the author by analyzing the sources' validity.
4. Analyze the complexities and discrepancies in information and systematically organize relevant information to support central ideas, concepts and themes.
5. Integrate quotations and citations into written text to maintain a flow of ideas.
6. Use style guides to produce oral and written reports that give proper credit for sources, and include appropriate in-text documentation, notes and an acceptable format for source acknowledgement.

6. Use a variety of communication techniques, including oral, visual, written or multimedia reports, to present information that supports a clear position about the topic or research question and to maintain an appropriate balance between researched information and original ideas.

12th Grade

1. Compose open-ended questions for research, assigned or personal interest, and modify questions as necessary during inquiry and investigation to narrow the focus or extend the investigation.
2. Identify appropriate sources and gather relevant information from multiple sources.
3. Determine the accuracy of sources and the credibility of the author by analyzing the sources' validity.
4. Analyze the complexities and discrepancies in information and systematically organize relevant information to support central ideas, concepts and themes.
5. Integrate quotations and citations into written text to maintain a flow of ideas.
6. Use style guides to produce oral and written reports that give proper credit for sources, and include appropriate in-text documentation, notes and an acceptable format for source acknowledgement.
7. Use a variety of communication techniques, including oral, visual, written or multimedia reports, to present information that supports a clear position about the topic or research question and to maintain an appropriate balance between researched information and original ideas.

Communication: Oral and Visual

Students learn to communicate effectively through exposure to good models and opportunities for practice. By speaking, listening and providing and interpreting visual images, they learn to apply their communication skills in increasingly sophisticated ways. Students learn to deliver presentations that effectively convey information and persuade or entertain audiences. Proficient speakers control language and deliberately choose vocabulary to clarify points and adjust presentations according to audience and purpose.

9th and 10th Grade

Benchmark A

Use a variety of strategies to enhance listening comprehension.

Benchmark D

Demonstrate an understanding of effective speaking strategies by selecting appropriate language and adjusting presentation techniques.

Benchmark E

Give informational presentations that present ideas in a logical sequence, include relevant facts and details from multiple sources and use a consistent organizational structure.

Benchmark F

Provide persuasive presentations that use varied speaking techniques and strategies and include a clear controlling idea and thesis.

Benchmark G

Give presentations using a variety of delivery methods, visual displays and technology.

11th and 12th Grade**Benchmark A**

Use a variety of strategies to enhance listening comprehension.

Benchmark D

Give persuasive presentations that structure ideas and arguments in a logical fashion, clarify and defend positions with relevant evidence and anticipate and address the audience's concerns.

Benchmark E

Give informational presentations that contain a clear perspective, present ideas from multiple sources in logical sequence and include a consistent organizational structure.

Benchmark F

Give presentations using a variety of delivery methods, visual displays and technology.

9th Grade

1. Apply active listening strategies in a variety of settings.
5. Demonstrate an understanding of the rules of the English language and select language appropriate to purpose and audience.
8. Deliver informational presentations that:
 - a. demonstrate an understanding of the topic and present events or ideas in a logical sequence;
 - b. support the controlling idea or thesis with well-chosen and relevant facts, details, examples, quotations, statistics, stories and anecdotes;
 - c. include an effective introduction and conclusion and use a consistent organizational structure; and
 - d. use appropriate visual materials and available technology to enhance presentation.
9. Deliver formal and informal descriptive presentations that convey relevant information and descriptive details.
10. Deliver persuasive presentations that:
 - d. consistently use common organizational structures as appropriate (e.g., cause-effect, compare-contrast, problem-solution); and
 - e. use speaking techniques (e.g., reasoning, emotional appeal, case studies or analogies).

10th Grade

1. Apply active listening strategies in a variety of settings.
5. Demonstrate an understanding of the rules of the English language and select language appropriate to purpose and audience.
8. Deliver informational presentations that:
 - a. demonstrate an understanding of the topic and present events or ideas in a logical sequence;
 - b. support the controlling idea or thesis with well-chosen and relevant facts, details, examples, quotations, statistics, stories and anecdotes;
 - c. include an effective introduction and conclusion and use a consistent organizational structure;
 - d. use appropriate visual materials and available technology to enhance presentation; and
 - e. draw from multiple sources, including both primary and secondary sources, and identify sources used.
9. Deliver formal and informal descriptive presentations that convey relevant information and descriptive details.

10. Deliver persuasive presentations that:
 - d. consistently use common organizational structures as appropriate (e.g., cause-effect, compare-contrast, problem-solution); and
 - e. use speaking techniques (e.g., reasoning, emotional appeal, case studies or analogies).

11th Grade

1. Apply active listening strategies in a variety of settings.
3. Critique the clarity, effectiveness and overall coherence of a speaker's key points.
4. Demonstrate an understanding of the rules of the English language and select language appropriate to purpose and audience.
8. Deliver informational presentations that:
 - a. present a clear and distinctive perspective on the subject;
 - b. present events or ideas in a logical sequence;
 - c. support the controlling idea with well-chosen and relevant facts, details, examples, quotations, statistics, stories and anecdotes;
 - d. include an effective introduction and conclusion and use a consistent organizational structure (e.g., cause-effect, compare-contrast, problem-solution); and
 - e. use appropriate visual materials and available technology to enhance presentation.
9. Deliver formal and informal descriptive presentations that convey relevant information and descriptive details.
10. Deliver persuasive presentations that:
 - d. consistently use common organizational structures as appropriate (e.g., cause-effect, compare-contrast, problem-solution); and
 - e. use speaking techniques (e.g., reasoning, emotional appeal, case studies or analogies).

12th Grade

1. Apply active listening strategies in a variety of settings.
3. Critique the clarity, effectiveness and overall coherence of a speaker's key points.
5. Demonstrate an understanding of the rules of the English language and select language appropriate to purpose and audience.
7. Vary language choices as appropriate to the context of the speech.
8. Deliver informational presentations that:
 - a. present a clear and distinctive perspective on the subject;

- b. present events or ideas in a logical sequence;
 - c. support the controlling idea or thesis with well-chosen and relevant facts, details, examples, quotations, statistics, stories and anecdotes;
 - d. include an effective introduction and conclusion and use a consistent organizational structure (e.g., cause-effect, compare-contrast, problem-solution); and
 - e. use appropriate visual materials and available technology to enhance presentation.
9. Deliver formal and informal descriptive presentations that convey relevant information and descriptive details.
10. Deliver persuasive presentations that:
- d. consistently use common organizational structures as appropriate (e.g., cause-effect, compare-contrast, problem-solution); and
 - e. use speaking techniques (e.g., reasoning, emotional appeal, case studies or analogies).

STATE OF OHIO SOCIAL STUDIES BENCHMARKS AND CONTENT STANDARDS

History

Students use materials drawn from the diversity of human experience to analyze and interpret significant events, patterns and themes in the history of Ohio, the United States and the world.

Benchmark B

Use historical interpretations to explain current issues.

12th Grade

- 2. Analyze primary source material to see if a historical interpretation is supported.

People in Societies

Students use knowledge of perspectives, practices and products of cultural, ethnic and social groups to analyze the impact of their commonality and diversity within local, national, regional and global settings.

Benchmark A

Analyze the influence of different cultural perspectives on the actions of groups.

10th Grade

2. Analyze the perspectives that are evident in African-American, American Indian and Latino art, music, literature and media and how these contributions reflect and shape culture in the United States.

12th Grade

1. Identify the perspectives of diverse cultural groups when analyzing current issues.
2. Analyze proposed solutions to current issues from the perspective of diverse cultural groups.

Geography

Students use knowledge of geographic locations, patterns and processes to show the interrelationship between the physical environment and human activity, and to explain the interactions that occur in an increasingly interdependent world.

Benchmark C

Use appropriate data sources and geographic tools to analyze and evaluate public policies.

12th Grade

4. Use appropriate data sources and tools to gather, manipulate, interpret and communicate geographic information related to civic/global issues.

Social Studies Skills and Methods

Students collect, organize, evaluate and synthesize information from multiple sources to draw logical conclusions. Students communicate this information using appropriate social studies terminology in oral, written or multimedia form and apply what they have learned to societal issues in simulated or real-world settings.

Benchmark B (10th Grade)

Use data and evidence to support or refute a thesis.

Benchmark B (12th Grade)

Critique data and information to determine the adequacy of support for conclusions.

10th Grade

3. Analyze one or more issues and present a persuasive argument to defend a position.

12th Grade

3. Research an issue or topic by gathering, recording, evaluating and interpreting relevant data.

STATE OF OHIO SCIENCE BENCHMARKS AND CONTENT STANDARDS**Life Sciences**

Students demonstrate an understanding of how living systems function and how they interact with the physical environment. This includes an understanding of the cycling of matter and flow of energy in the living systems. An understanding of the characteristics, structure and functions of the cells, organisms and living systems will be developed. Students will also develop a deeper understanding of the principles of heredity, biological evolution, and the diversity and interdependence of life. Students demonstrate an understanding of different historical perspectives, scientific approaches and emerging scientific issues associated with the life sciences.

Benchmark G (12th Grade)

Summarize the historical development of scientific theories and ideas within the study of life sciences.

Benchmark J (10th Grade)

Summarize the historical development of scientific theories and ideas, and describe emerging issues in the study of life sciences.

10th Grade

28. Analyze and investigate emerging scientific issues (e.g., genetically modified food, stem cell research, genetic research and cloning).

12th Grade

11. Trace the historical development of a biological theory or idea.
12. Describe advances in life sciences that have important, long-lasting effects on science and society.

Science and Technology

Students recognize that science and technology are interconnected and that using technology involves assessment of the benefits, risks and costs. Students should build scientific and technological knowledge, as well as the skill required to design and construct devices. In addition, they should develop the processes to solve problems and understand that problems may be solved in several ways.

Benchmark A

Predict how human choices today will determine the quality and quantity of life on Earth.

11th Grade

1. Identify that science and technology are essential social enterprises but alone they can only indicate what can happen, not what should happen. Realize the latter involves human decisions about the use of knowledge.

12th Grade

2. Describe how new technologies often extend the current levels of scientific understanding and introduce new areas of research.

Scientific Ways of Knowing

Students realize that the current body of scientific knowledge must be based on evidence, predictive, logical, subject to modification and limited to the natural world. This includes demonstrating an understanding that scientific knowledge grows and advances as new evidence is discovered to support or modify existing theories, as well as to encourage the development of new theories. Students are able to reflect on ethical scientific practices and demonstrate an understanding of how the current body of scientific knowledge reflects the historical and cultural contributions of women and men who provide us with a more reliable and comprehensive understanding of the natural world.

Benchmark A

Explain that scientific knowledge must be based on evidence, predictive, logical, subject to modification and limited to the natural world.

Benchmark B

Explain how scientific inquiry is guided by knowledge, observations, ideas and questions.

Benchmark C

Describe the ethical practices and guidelines in which science operates.

Benchmark D

Recognize that scientific literacy is part of being a knowledgeable citizen.

9th Grade

3. Justify that scientific theories are explanations of large bodies of information and/or observations that withstand repeated testing.
4. Explain that inquiry fuels observation and experimentation that produce data that are the foundation of scientific disciplines. Theories are explanations of these data.
5. Recognize that scientific knowledge and explanations have changed over time, almost always building on earlier knowledge.
7. Explain how support of ethical practices in science is required to reduce bias.
8. Illustrate that much can be learned about the internal workings of science and the nature of science from the study of scientists, their daily work and their efforts to advance scientific knowledge in their area of study.
9. Investigate how the knowledge, skills and interests learned in science classes apply to the careers students plan to pursue.

10th Grade

3. Recognize that science is a systematic method of continuing investigation, based on observation, hypothesis testing, measurement, experimentation, and theory building, which leads to more adequate explanations of natural phenomena.
4. Recognize that ethical considerations limit what scientists can do.
7. Investigate how the knowledge, skills and interests learned in science classes apply to the careers students plan to pursue.

11th Grade

2. Apply scientific inquiry to evaluate results of scientific investigations, observations, theoretical models and the explanations proposed by other scientists.
6. Recognize that bias affects outcomes. People tend to ignore evidence that challenges their beliefs but accept evidence that supports their beliefs. Scientists attempt to avoid bias in their work.

12th Grade

5. Describe how individuals and teams contribute to science and engineering at different levels of complexity.
6. Recognize the appropriateness and value of basic questions “What can happen?” “What are the odds?” and “How do scientists and engineers know what will happen?”

APPENDIX C

NATIONAL CONTENT STANDARDS: VISUAL ARTS, LANGUAGE ARTS, SOCIAL STUDIES, SCIENCE, PHYSICAL EDUCATION AND HEALTH, AND TECHNOLOGY

VISUAL ARTS NATIONAL CONTENT STANDARDS

Content Standard 1: Understanding and applying media, techniques and processes

Standard:

- Students apply media, techniques, and processes with sufficient skill, confidence, and sensitivity that their intentions are carried out in their artwork.
- Students conceive and create works of visual art that demonstrate an understanding of how the communication of their ideas relates to the media, techniques, and processes they use.

Advanced:

- Students communicate ideas regularly at a high level of effectiveness in at least one visual arts medium.
- Students initiate, define, and solve challenging visual arts problems independently using intellectual skills such as analysis, synthesis, and evaluation.

Content Standard 2: Using knowledge of structures and functions

Standard:

- Students demonstrate the ability to form and defend judgments about the characteristics and structures to accomplish commercial, personal, communal, or other purposes of art.
- Students evaluate the effectiveness of artworks in terms of organizational structures and functions.
- Students create artworks that use organizational principles and functions to solve specific visual arts problems.

Advanced:

- Students demonstrate the ability to compare two or more perspectives about the use of organizational principles and functions in artwork and to defend personal evaluations of these perspectives.
- Students create multiple solutions to specific visual arts problems that demonstrate competence in producing effective relationships between structural choices and artistic functions.

Content Standard 3: Choosing and evaluating a range of subject matter, symbols and ideas

Standard:

- Students reflect on how artworks differ visually, spatially, temporally, and functionally, and describe how these are related to history and culture
- Students apply subjects, symbols, and ideas in their artworks and use the skills gained to solve problems in daily life.

Advanced:

- Students describe the origins of specific images and ideas and explain why they are of value in their artwork and in the works of others.
- Students evaluate and defend the validity of sources for content and the manner in which subject matter, symbols, and images are used in the students' works and in significant works by others.

Content Standard 4: Understanding the visual arts in relation to history and cultures

Standard:

- Students differentiate among a variety of historical and cultural contexts in terms of characteristics and purposes of works of art.
- Students describe the function and explore the meaning of specific art objects within varied cultures, times, and places.
- Students analyze relationships of works of art to one another in terms of history, aesthetics, and culture, justifying conclusions made in the analysis and using such conclusions made in the analysis and using conclusions to inform their own art making.

Advanced:

- Students analyze and interpret artworks for relationships among form, context, purposes, and critical models, showing understanding of the work critics, historians, aestheticians, and artists.
- Students analyze common characteristics of visual arts evident across time and among cultural/ethnic groups to formulate analysis, evaluations, and interpretations of meaning.

Content Standard 5: Reflecting upon and assessing the characteristics and merits of their work and the work of others

Standard:

- Students identify intentions of those creating artworks, explore the implications of various purposes, and justify their analysis of purposes in particular works.
- Students describe meanings of artworks by analyzing how specific works are created and how they relate to historical and cultural contexts.
- Students reflect analytically on various interpretations as a means for understanding and evaluating works of visual art.

Advanced:

- Students correlate responses to works of visual art with various techniques for communicating meanings, ideas, attitudes, views, and intentions.

Content Standard 6: Making connections between visual arts and other disciplines

Standard:

- Students compare the materials, technologies, media, and processes of the visual arts with those of other art disciplines as they are used in creation and types of analysis.
- Students compare characteristics of visual arts within a particular historical period or style with ideas, issues, or themes in the humanities or sciences.

Advanced:

- Students synthesize the creative and analytical principles and techniques of the visual arts and selected other arts disciplines, the humanities, or the sciences.

LANGUAGE ARTS NATIONAL CONTENT STANDARDS

Content Standard 3: Evaluation Strategies

Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They draw on their prior experience, their interactions with other readers and writers, their knowledge of word meaning and of other texts, their word identification strategies, and their understanding of textual features.

Content Standard 4: Communication Skills

Students adjust their use of spoken, written and visual language to communicate effectively with a variety of audiences and for different purposes.

Content Standard 5: Communication Strategies

Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes.

Content Standard 6: Applying Knowledge

Students apply knowledge of language structure, language conventions, media techniques, figurative language, and genre to create, critique, and discuss print and non print text.

Content Standard 7: Evaluating Data

Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources to communicate their discoveries in ways that suit their purpose and audience.

Content Standard 8: Developing Research Skills

Students use a variety of technological and information resources to gather and synthesize information and to create and communicate knowledge.

Content Standard 11: Participating in Society

Students participate as knowledgeable, reflective, creative, and critical members of a variety of literacy communities.

Content Standard 12: Applying Language Skills

Students use spoken, written, and visual language to accomplish their own purposes.

SOCIAL STUDIES NATIONAL CONTENT STANDARDS

Content Standard 10: ERA 10: Contemporary United States

- Understand economic, social, and cultural developments in contemporary United States.

SCIENCE NATIONAL CONTENT STANDARDS

Content Standard 1: Science as Inquiry

As a result of activities in grades 9-12, all students should develop

- Abilities necessary to do scientific inquiry
- Understandings about scientific inquiry

Content Standard 5: Science and Technology

As a result of activities in grades 9-12, all students should develop

- Understandings about science and technology

Content Standard 6: Personal and Social Perspectives

As a result of activities in grades 9-12, all students should develop understanding of

- Personal and community health
- Natural and human induced hazards
- Science and technology in local, national, and global challenges

Content Standard 7: History and Nature of Science

As a result of activities in grades 9-12, all students should develop understanding of

- Science as a human endeavor
- Nature of scientific knowledge

- Historical perspectives

PHYSICAL EDUCATION AND HEALTH NATIONAL CONTENT STANDARDS

Content Standard 1: Health Promotion and Disease Prevention

Students will comprehend concepts related to health promotion and disease prevention.

- Analyze how the prevention and control of health problems are influenced by research and medical advances.

Content Standard 7: Health Advocacy

Students will demonstrate the ability to advocate for personal, family, and community health.

- Evaluate the effectiveness of communication methods for accurately expressing health information and ideas.
- Express information and opinions about health issues.
- Utilize strategies to overcome barriers when communicating information, ideas, feelings, and opinions about health issues.
- Demonstrate the ability to influence and support others in making positive health choices.
- Demonstrate the ability to adapt health messages and communication techniques to the characteristics of a particular audience.

TECHNOLOGY NATIONAL CONTENT STANDARDS

Content Standard 1: Basic Operations and Concepts

- Students demonstrate a sound understanding of the nature and operation of technology systems.
- Students are proficient in the use of technology.

Content Standard 2: Social, Ethical and Human Issues

- Students understand the ethical, cultural, and societal issues related to technology.
- Students practice responsible use of technology systems, information, and software.

- Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

Content Standard 3: Technology Productivity Tools

- Students use technology tools to enhance learning, increase productivity, and promote creativity.
- Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.

Content Standard 4: Technology Communication Tools

- Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

Content Standard 5: Technology Research Tools

- Students use technology to locate, evaluate, and collect information from a variety of sources.

Content Standard 6: Technology Problem-Solving and Decision Making

- Students use technology resources for solving problems and making informed decisions.
- Students employ technology in the development of strategies for solving problems in the real world.