FOUNDATIONS IN VISUAL ARTS

TEACHER GUIDE

GAMES FOR GOOD

UNIT 6

DIGITAL MEDIA ARTS

dma.edc.org

EDC
Education Development Center, Inc.

the James Irvine foundation

ConnectEd
The California Center for College and Career

Education Development Center, Inc.

Carissa Baquiran, Kristen Bjork, Lisa Breit, Jen Clarke, Jennifer Davis-Kay, Jesse Dill, Maria D'Souza, Eliza Fabillar, Myron Feld, Roser Giné, Vivian Guilfoy, Ilene Kantrov, Patricia Konarski, Rebecca Lewis, Emily McLeod, Madison O'Leary, Cynthia Orrell, Allysen Palmer, Fawn Thompson, Jason Tranchida, Susan Richmond, Zachary Yocum

Contact
Education Development Center, Inc.
55 Chapel Street, Newton, MA 02458-1060, USA
Phone: 617.969.7100 · Fax: 617.969.5979 · TTY: 617.964.5448
www.edc.org

ISBN
978-0-89292-575-9

Web Site
dma.edc.org

Development Partners

The James Irvine Foundation

Anne Stanton, Rogéair Purnell, Kathryn Furano, Matt Kelemen

ConnectEd: The California Center for College and Career

Gary Hoachlander, Paula Hudis, Pier Sun Ho, Khahn Bui, Dave Yanofsky

Advisors

Industry and Community Advisors

Deborah Brooks
The ACME Network

Milton Chen, PhD
The George Lucas Educational Foundation

Marilyn Friedman
DreamWorks Animation LLC

Pete Galindo
Independent Video Consultant and Educator

Kate Johnson
EZTV

Melissa Malinowsky
Independent Photo Editor

Erik Mason
Imaginary Forces

Dave Master
The ACME Network

Kathleen Milnes
The Entertainment Economy Institute

Dan Norton
Filament Games

Scot Osterweil
The Education Arcade

John Perry
The ACME Network

Chris Runde
Bay Area Video Coalition (BAVC)

Jessica Sack
Yale University Art Gallery

John Tarnoff
DreamWorks Animation LLC

Moriah Ulinskas
Bay Area Video Coalition (BAVC)

Eric Zimmerman
Gamelab

Secondary Educators and Pilot Teachers

*We are particularly grateful for the suggestions and guidance of the teachers who pilot-tested the curriculum.

Rosa Anaya*
John Muir High School, Pasadena, CA

Joel Buringrud*
Harmony Magnet Academy, Strathmore, CA

Richard Burrows
Arts Education Branch,
Los Angeles Unified School District

Pam Carter
Santa Susana High School, Simi Valley, CA

Deborah Claesgans
Arts Education Branch,
Los Angeles Unified School District

Cathee Cohen
Grover Cleveland High School,
Los Angeles, CA

Heidi Cregge*
Oakland School for the Arts, Oakland, CA

Barrington Edwards
Boston Arts Academy, Boston, MA

Virginia Eves
Office of College, Career & Technical
Education, San Diego Unified School District

Soma Mei-Sheng Frazier
Oakland School for the Arts, Oakland, CA

Shivohn Garcia
Paul Cuffee School, Providence, RI

Lorena Guillen*
John Muir High School, Pasadena, CA

John Hammelmann*
Harmony Magnet Academy, Strathmore, CA

Scott Hebeisen*
Digital Media Design HS, San Diego, CA

Brianna Larkin*
Oakland School for the Arts, Oakland, CA

Shawn Loescher
Office of College, Career & Technical
Education, San Diego Unified School District

Gail Marshall*
Van Nuys High School, Los Angeles, CA

Matt Maurin*
Edison High School, Stockton, CA

Jack Mitchell
California Department of Education

Frank Poje
History-Social Science Educator

Nicholas Rogers
Career Development Unit, DACE,
Los Angeles Unified School District

Mark Rosseau*
Richmond High School, Richmond, CA

Shawn Sullivan
Sheldon High School, Elk Grove, CA

David Wilson*
Cesar Chavez High School, Stockton, CA

Jose Velazquez*
Harmony Magnet High School, Strathmore, CA

Post-Secondary Educators

Kristine Alexander
The California Arts Project,
California State University

John Avakian
Community College Multi-media
and Entertainment Initiative
College of San Mateo, CA

Brandi Catanese
University of California, Berkeley

Elizabeth Daley
School of Cinematic Arts,
University of Southern California

Amy Gantman
Otis College of Art and Design, CA

Evarist Giné
Professor of Mathematics,
University of Connecticut

Samuel Hoi
Otis College of Art and Design, CA

David Javelosa
Santa Monica Community College, CA

Jack Lew
Center for Emerging Media,
University of Central Florida

Sue Maberry
Otis College of Art and Design, CA

Tara McPherson
University of Southern California

Carol Murota
University of California, Berkeley

Casey Reas
University of California, Los Angeles

Carl Rosendahl
Carnegie Mellon University-
Silicon University Campus

Guy Smith
Santa Barbara City College, CA

Matt Williams
Institute for Multimedia Literacy,
University of Southern California

Holly Willis
Institute for Multimedia Literacy,
University of Southern California

Ellen Winner
Project Zero,
Harvard Graduate School of Education, MA

Contents

UNIT 6

UNIT 6

Unit Overview

Throughout history, art and media have been used to inform, influence, and inspire people to change their world. In this unit, students learn about ways that art and media can be used to advocate for issues and even spur people to take action. Students focus on the potential of video games as tools for education and for making a better world. They explore how the design, interactivity, and visual elements of a video game can engage and teach audiences about a particular issue. For their unit project, students create the preliminary design and artwork for a video game that will inspire, inform, or motivate players to act on an issue of the students' choosing.

Unit Length

30 50-minute sessions

(including 2 sessions for work on the Unit 7: Art Show! exhibition)

Unit Project Description

Students work in teams to choose an issue that they care about and to design a concept for a video game that engages their peers in that issue. For example, one team might design a video game about global warming, in which players work together to reduce the carbon footprint of their community. Another team might focus on school dropout rates and design a game exploring the reasons that students drop out and offering solutions to keep them in school.

Students analyze existing video games to determine the elements that attract and engage players and to develop a concept for a game that is not only educational and/or persuasive but also enjoyable to play. Students synthesize what they've learned in previous units about concept art, storytelling, and character development in order to develop a concept for the game, and create sketches and finished artwork (a drawing, painting, or sculpture) for the game's setting and characters. At the end of the unit, students invite community members and, possibly, arts, media, and entertainment (AME) professionals to a pitch session where students describe the issue and pitch their teams' game ideas.

Assessment

Unit activities can serve as formative assessment tools. Observe students' developing techniques and their use of the elements of art and principles of design to gather information about their progress and to identify concepts or skills to reinforce within your instructional practice. The following activities are particularly useful for formative assessment:

- Journal assignments 1 and 2 (Activity 1A.2 and Activity 1B.3)
- Teams' graphic ideas in **Handout 11: Our Game World** (Activity 2A.3)
- Three preliminary sketches (Activity 2B.1)
- Detailed sketch (Activity 3B.2)

The project-based nature of the unit allows students to demonstrate their learning through authentic and relevant applications. For this unit, the summative assessment consists of the following items, which will be included in students' working portfolios:

- Three preliminary concept art sketches, including an overall representation of the game, a screenshot, and a sketch of characters or objects from the game
- Detailed sketch
- Completed drawing, painting, or sculpture
- Pitch presentation
- Final reflection on unit work

The unit's Assessment Checklist lists requirements that students must meet in order to successfully complete the project. The checklist also suggests a weight for each part of the assessment. You will need to determine which specific art techniques and skills you will teach in the unit and the criteria you will use to assess students' work. If you wish to use a rubric, you can develop a tool that is consistent with your school's assessment system.

Framing Questions

- How are arts, media, and entertainment used to advocate and persuade?
- How can I transform my vision for a better world into an interactive media experience?
- What are the essential elements of video game design?
- How can I design a video game concept that is engaging and informative and also inspires people to take action?

Understandings

- Video games can be used to communicate a point of view, convey information, or influence an audience through the creation of an interactive experience that engages viewers and taps into their emotions.
- The design, interactivity, and visual elements of a video game affect the way that the game is perceived by the user.
- Art and media works that are designed to inform, inspire, or motivate people can be instructive as well as enjoyable.

Art Concepts Addressed

- Developing a consistent visual style
- Applying the design principle of *unity* to a series of artworks

Art Skills Taught and Practiced

- Sketching
- Drawing
- Painting
- Sculpture

Where the Unit Fits In

Students bring together skills and understandings from Units 1–5 as they consider how to use arts and media to improve their world. In *Unit 3: Community Storytelling*, *Unit 4: Make Me a World*, and *Unit 5: Creating Characters*, students learned to create narratives, use concept art to establish mood and setting, and develop characters for media projects. In this unit, students build on those skills to design visual art for an issue-based video game. Students' choice of issue reflects their values and identities, which ties into *Unit 1: Getting to Know You*.

Unit 6: Games for Good presents basic ideas in game design and prepares students for the second-year course, *Foundations in Media and Digital Design: Animation and Gaming*, or another technical course. In *Unit 6: Games for Good*, students develop a video game concept and game elements, but the unit stops short of having them develop a playable video game. For this reason, the unit allows students to conceptualize games that are likely to be more complex than they actually could develop as a first project in game development.

Pacing and Sequencing

If students need more experience playing games before brainstorming their game design ideas, you might want to have them complete Part 3: Analyzing Video Games before Part 2: Developing Game Ideas. You might also build in extra class time for playing games, if you think students won't have the opportunity outside of school or if you'd like to select the games that students play. In addition, depending on the final artwork students choose and the media they'll be working with, you may need to allow more time for Part 4: Creating Final Art and Making the Pitch.

Connection to Integrated Academic Units

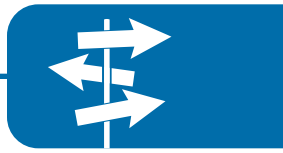
Two- to three-week units, taught by teachers in the academic disciplines, help students integrate what they are learning in *Games for Good* with core academic classes.

Cold War Games (World History) uses video game design as the context for understanding the complex web of events, conflicts, and policies that constituted the global Cold War. Students use their understanding of this era to write a paper that contains recommendations for the design of a game based on a pivotal event in this period of history.

The Power of the Nucleus (Chemistry) presents a compelling contemporary issue as the context for learning about atomic structure and nuclear processes. Students apply what they have learned in order to participate in a debate or informational campaign about a societal issue related to nuclear processes.

Multi-disciplinary Teams: If you are working with the world history teacher, have students create concept art that incorporates the research they conducted on their team's Cold War event. If you are working with the chemistry teacher, have students integrate their learning about an issue in nuclear chemistry into their issue-based game.

Career Connections



Developing a concept for a video game and building on sketching, drawing, painting, or sculpting skills are all directly related to AME careers. Students continue to develop their teamwork skills and their skills in creating works of art and media with a unified look.

Ideas for Involvement with Professionals

- Invite a game designer to talk to the class about how game projects are initiated. Focus on a designer who develops educational or issue-based games. Have the designer discuss how to use art to create experiences that engage players and also inform them about an issue. (Activity 1B.1)
- Invite AME professionals to critique students' game concepts and sketches. (Activity 3B.2)
- Invite AME professionals to talk with students about their careers. (Activity 3B.3)
- Arrange for students to pitch their ideas to AME professionals. (Activity 4B)

To find professionals in the game industry, you might try networking within the community or searching online for local companies that employ game developers or designers. As an alternative, invite the owner or manager of a local game retail store, a marketing professional, or a journalist who covers the game industry to visit the classroom and offer feedback and advice to students.

Key Careers

Through activities in this unit, students learn about the following careers:

- Game tester
- Game designer
- Lead designer
- Game artist

Table of Activities

Part 1: Art, Media, and Persuasion (4 50-minute sessions)

Students analyze examples of art and media that address social issues and discuss how art and media can influence and persuade. They view a video game and think about how its design contributes to the game's purpose. Students are introduced to the unit project and begin their research.

Activity 1A: Introduction to How Art and Media Engage and Persuade

1A.1: ***Looking at Art and Media as Catalysts for Change***	Students study three examples of issue-based art and media. They analyze a video game and are introduced to the unit.
1A.2: ***An Ideal World***	Students think about changes they might like to make in their community or the world, sketching "before" and "after" images for a particular issue. The class compiles a master list of issues for its games.

Activity 1B: Choosing and Researching an Issue

1B.1: ***Choosing an Issue***	Students learn about the unit project. Student teams select one issue on which to base their video game.
1B.2: ***Researching the Issue***	Teams identify the information they need to develop their game, and begin their research.
1B.3: ***Choosing a Purpose***	Teams decide on the purpose of their game—what information they want to convey or what actions they want to inspire players to take.

Part 2: Developing Game Ideas (9 50-minute sessions)

Students brainstorm ideas for their video game concepts and analyze screenshots of video games. Teams sketch preliminary concept art for their games and get class feedback. Students work in their curation teams and exhibition preparation teams on their year-end exhibition.

Activity 2A: Thinking About the Game

2A.1: Brainstorming Game Ideas	Teams brainstorm ideas for their game concepts, drawing on what they have learned so far in their research.
2A.2: Looking at Game Settings	Students look at screenshots of existing video games to learn about the use of visual elements and to compare different video game styles.
2A.3: What Does Your Game World Look Like?	Students develop ideas for the look and setting of their own game worlds.

Activity 2B: Sketching the Game World

2B.1: Creating Concept Art Sketches: Studio	Each team member completes three preliminary sketches of concept art, including an overall depiction of the game world, a screenshot, and a sketch of characters or objects from the game.
2B.2: Responding to Concept Art	Students post their sketches, receive feedback, and discuss the concepts of unity and visual style.

Activity 2C: Working on the Exhibition

2C.1: Thinking About the Opening Reception	Students brainstorm and finalize ideas for a reception for the end-of-year art exhibition, and assign tasks.
2C.2: Meeting in Exhibition Teams	Curation teams decide on themes for their sections of the exhibition and select works to include. Exhibition preparation teams review responsibilities and check in on task progress.

Part 3: Analyzing Video Games (7 50-minute sessions)

Students analyze video games in order to revise their video game concepts and one of their preliminary sketches. They learn about careers in the game industry and check in on their AME Career Research projects.

Activity 3A: Analyzing Video Games

3A.1: ***Why Do People Play Games?***	Students discuss the appeal of video games and describe what is compelling about some of their favorite games.
3A.2: ***Looking at Entertainment- and Issue-Based Video Games***	Students work in teams to analyze both entertainment- and issue-based video games, looking at such aspects as genre, setting, and characters.
3A.3: ***Sharing Video Game Analyses***	Students write about a game they analyzed and discuss similarities and differences between entertainment- and issue-based games.

Activity 3B: Revising Game Ideas

3B.1: ***Revising the Game Concept***	Students revise their game concept ideas, present their revised ideas to the class for review, and incorporate class feedback.
3B.2: ***Creating a Detailed Sketch: Studio***	Students choose one preliminary sketch to develop into a more detailed sketch, using class feedback and revisions to their game concept. They then share their detailed sketch with the class.
3B.3: ***Examining Careers***	Students learn about careers related to their unit work and check in on their AME Career Research projects.

Part 4: Creating Final Art and Making the Pitch (10 50-minute sessions)

Students create finished concept art and develop and deliver a pitch for their games. They reflect on their work and on the effectiveness of using video games as a means to inspire, inform, and motivate people about a particular issue.

Activity 4A: Creating Final Artwork: Studio/Technique

Students meet in their teams to decide how team members will create their artworks and what media they will use. Each student then creates his or her final artwork.

Activity 4B: Preparing and Delivering the Pitch

Students work in their teams to develop and deliver the pitch for their games. They reflect on what they have learned throughout the unit.

Advance Preparation

- Internet resources, provided as links in *Media & Resources*, are recommended throughout the unit for student or in-class use. These Web sites have been checked for availability and for advertising and other inappropriate content. Because Web sites' policies and content change frequently, however, we suggest that you preview the sites shortly before using them.
- Look at **Materials Needed** at the end of the unit and order any needed equipment or supplies. You may want to discuss with students early on which medium they are planning to use for their final concept art (Part 4), so you can be sure to have the appropriate materials on hand.
- Look at **Appendix B: Additional Journal Suggestions** and decide whether you will use any of these journal assignments during the unit.
- Read **Career Connections**, determine how you will engage students with AME professionals during this unit, and invite those professionals to come into the classroom, or arrange for a class visit to a business or other location. Extend invitations and schedule visits at least one month before beginning the unit.
- Optional: As an alternative or in addition to inviting AME professionals to visit the classroom (Activity 3B.3), find online interviews for students to read or view (see *Additional Resources for Teachers* for suggestions).
- Note that students play and analyze both entertainment- and issue-based video games throughout this unit:
    - Activity 1A.1 uses a simple issue-based game to demonstrate how games can address social issues.
    - In Activity 3A, student teams analyze examples of entertainment- and issue-based games.
    - Throughout the unit, students are encouraged to spend time, in class or as homework, familiarizing themselves with a wide range of game genres.
- Select games in advance to use as in-class examples, and prepare a handout listing the names (and URLs, if available) of appropriate games. See *Media & Resources* for suggestions.
    - Address any issues related to accessing Internet video games at your school, as necessary.
    - Decide whether you will have students use software to create sketches and/or finished artwork (see Teacher's Notes: Technology Alternative in Activities 1A.2, 2B.1, and 3B.2, and Teacher's Notes: Choosing Media and Technology in Activity 4A).

Teacher's Notes: Playing Video Games in the Classroom

Some of the issue-based games listed in *Media & Resources* require a large file to be downloaded in order to play the game, and other games must be played online. Make sure that students will be able to play the games you've selected.

You can either display the games to analyze as a class, or have students play games in pairs using a gaming station or hand-held game device.

Part 1: Art, Media, and Persuasion

Length

4 50-minute sessions

Students analyze three examples of art and media that address social issues, and discuss how art and media can influence and persuade. Next, they view a video game and discuss the potential for games, as visual media, to educate and to address issues.

Students learn about the unit project, in which teams design a concept and create art for a video game that engages their peers in an issue. Students brainstorm issues in their community and the larger world and create "before" and "after" sketches about the issues.

Teams choose one issue for their game focus and begin their research by collecting images, words, text, and memorable quotes on a team inspiration board.

Advance Preparation

- For Activity 1A.1, choose three examples of persuasive art and media—such as murals, posters, and public service announcements—that address different social issues. (See *Media & Resources* for suggestions.)
- Optional: For other examples to use in Activity 1A.1, locate clips from TV documentary series, such as *Frontline* or *POV* (PBS), or illustrated children's books that address social issues, such as *The Lorax* by Dr. Seuss or *Smoky Night* by Eve Bunting.
- Also for Activity 1A.1, select a video game or games from the list of appropriate games that you created prior to beginning the unit—ideally, a game that informs or persuades players about an issue.
- Decide how students will interact with the video game, whether as part of a class demonstration or in pairs at individual gaming stations or with hand-held devices. Gather the necessary equipment.
- Prepare display equipment for video game and art and media examples.
- Before Activity 1A.2, find a reproduction of the mural *Seeds of Peace* or another work of art that shows an ideal world. (See *Media & Resources* for suggestions.)
- Optional: If you have invited a game designer to speak to the class at the beginning of Activity 1B, finalize these arrangements.

Activity 1A: Introduction to How Art and Media Engage and Persuade

In this activity, students are introduced to the idea of art and media as catalysts for change. They explore issues that interest them as potential topics for their video games.

Sequence

1A.1: ***Looking at Art and Media as Catalysts for Change***	Students study three examples of issue-based art and media. They analyze a video game and are introduced to the unit.
1A.2: ***An Ideal World***	Students think about changes they might like to make in their community or the world, sketching "before" and "after" images for a particular issue. The class compiles a master list of issues for its games.

Materials Needed

- Three examples of persuasive art and media that address different social issues (see Advance Preparation)
- Optional: TV documentary clip or one or two children's books that address social issues (see Advance Preparation)
- Video game that explores a social issue (see Advance Preparation)
- Equipment for displaying the video game (see Advance Preparation)
- **Handout 1: Unit 6 Overview**
- **Handout 2: Game-Play Log**
- Teacher-selected list of appropriate entertainment- and issue-based video games
- **Handout 3: Journal Assignments**
- A reproduction of *Seeds of Peace* or another work of art that depicts an ideal world (see Advance Preparation)
- Colored pencils

1A.1: Looking at Art and Media as Catalysts for Change

RESOURCES

1. Present three works of art.
Explain that sometimes artists create work to teach about an issue or to inspire people to take action on an issue.

Display the first example of persuasive art, and ask students to write down the first words or phrases that come to mind. Tell students to look at the subject of the artwork as well as the way the art is drawn. Have students share their words and phrases with the class. Create a list on chart paper.

Do the same with the second and third examples.

> **Note:** You may need to provide students with some context and background on the issues addressed in the works. For example, if you show a mural that addresses workers' rights, provide students with information about the labor movement.

2. Discuss the relationship between art and change.
Discuss the power of art to effect change, using the questions below. As students respond, make relevant connections to the words and phrases they shared:

- What do you think each work is trying to convey? What did you see or hear in the work that makes you think that?
- What do you think the creators of these works wanted to have happen as a result of people viewing them?

  Possible answers: *They may have wanted to raise awareness of an issue, get people to talk with others about the issue, change people's minds about the issue, or cause people to take action related to the issue.*

- Do you think experiencing these works could influence people to take action? If yes, what kind of action might someone take?

  Possible answers: *Viewers may be inspired to read more about the issues and talk about them with other people in order to raise others' awareness. They also may be influenced to take personal action, such as volunteering or donating to a cause; political action, such as calling congresspeople or changing who they vote for; or collective action, such as participating in protests about the issue. On the other hand, viewers may not agree with the creator's view on the issue or may not be moved to take any action.*

- Why do you think art and media could be powerful tools to promote change?

  Possible answers: *Art and media—particularly visual images—can appeal to people's emotions. They can tell personal stories and show the human side of an issue that might otherwise seem abstract or irrelevant to the viewer.*

- What are the limitations of art and media as vehicles of change?

  Possible answers: *Activist art and media might evoke strong feelings or reactions, but might not provide enough information or a way for viewers to act on what they see. Visual images are not always effective at providing in-depth information and may not show all sides of an issue. Without context, some people may not be affected by art if they don't understand the subject or point of view expressed.*

- Have you ever taken any action on an issue as a result of seeing a piece of art or looking at a media campaign? Explain.

Teacher's Notes: Looking at Other Media (Optional)

As an extension to this activity, have students look at a clip from a television documentary or one or two children's books that address social issues and then discuss how the art reinforces the message.

3. Introduce video games as a medium to inform or persuade.
Tell students that they will focus on another visual medium that can be used to inform and persuade about important issues—video games. Explain that although students may be familiar with this medium, they may not have thought about its potential for raising awareness and getting people to take action on an issue.

Display the issue-based video game you have chosen. Invite a student to play so that the rest of the class can observe. Ask the following questions:

- How do you play this game?
- What issue does the game address?
- What do you think the game designers want you to learn from the game or do after playing the game?
- What aspects of the game involve art and design?
- How important are the visual elements to your enjoyment of the game? Explain how they affect the game experience.
- Can you name other games, either board games or video games, in which art and design play an important role?
- Why might a video game be an effective way to get people to learn more about or act on an issue?

  Possible answers: *People learn about the issue as part of playing the game. Because they need to know about the issue in order to play, they are more likely to remember the information. If they enjoy the game, they may also feel drawn to the issue.*

4. Present an overview of the unit.
Distribute **Handout 1: Unit 6 Overview** and give students time to read it.

> **Note:** If students are interested in finding out more about the art and media works mentioned in the first paragraph of Handout 1, see *Media & Resources* for links to further information.

Point out the vocabulary list and tell students that they can refer to this list throughout the unit as new terms are introduced.

5. Introduce students to their game-playing assignment.
Distribute **Handout 2: Game-Play Log** and the list of appropriate entertainment- and issue-based video games you prepared. Encourage students to play a variety of video games during the unit in order to become as familiar as possible with different types of games, how they are played, and what players might learn from them, and to have many opportunities to be inspired by them. Tell students to record basic information about each game they play on Handout 2. Note that additional copies of Handout 2 are available, if needed.

Let students know whether you will set aside class time for them to play video games or have them play games as homework.

Handout 1:
Unit 6 Overview

Throughout history, people have used art and media to inform, influence, and inspire. In 1814, Francisco Goya's painting The Third of May 1808 *strengthened the resolve of many Spanish citizens to resist Napoleon's occupation of their country, which significantly weakened the conqueror over time. The AIDS Memorial Quilt, begun in the late 1980s, continues to serve as a remembrance of those who have died of AIDS and as a celebration of their lives. The 1987 series* Eyes on the Prize *documented the struggle for civil rights in America. These are just a few examples of art and media that have raised awareness of an issue and influenced people's opinions and behaviors.*

During this unit, you'll explore the role that art and media—specifically, video games— can play in educating people about an issue and motivating them to work toward a better world. You'll work in a team to develop an idea for a game that addresses an issue that is important to you, develop concept art for the game, and pitch your idea to your classmates and others.

Your work in this unit will revolve around the following questions:

- *How are arts, media, and entertainment used to advocate and persuade?*
- *How can I transform my vision for a better world into an interactive media experience?*
- *What are the essential elements of video game design?*
- *How can I design a video game concept that is engaging and informative and also inspires people to take action?*

Unit Project

You will work in teams to choose an issue that is important to you and design a concept and artwork for a video game that will engage your peers. You might choose to focus on nutrition or another health issue, graffiti or litter in your community, the need for tolerance and respect in your school, or any other topic for which you would like to effect change.

You'll apply what you've learned in previous units about concept art, storytelling, and character development to brainstorm a concept for the game and create sketches for the game's setting and characters. You'll analyze existing video games to identify elements that attract and engage players. Your team will then refine your game concept and artwork so that the game is not only educational and/or persuasive but also enjoyable to play. Finally, you will pitch your game idea to an audience of classmates and, possibly, community members and arts, media, and entertainment (AME) professionals.

What You Will Do in This Unit

Examine how art and media can be used as catalysts for change. Analyze art and media to explore the ways that they can influence opinions and actions.

Sketch your own vision of how to improve your community. What would you change in your world? Find an issue that is important to you, and draw "before" and "after" sketches of the change you'd like to effect.

Develop your own video game concept. Work in teams to choose and research an issue on which to base your video game, and then brainstorm ideas for game play, settings, and characters.

Sketch game components. Create preliminary sketches of concept art, including a setting, a screenshot showing elements of game play, and the characters and objects that players will find in your world.

Play games and critique their appeal. Try out video games in a range of genres, including games that are pure entertainment and games that are potential instruments of change. Which are the most fun, and why? Is it possible to learn while being engaged?

Refine one of your sketches. Choose one of your preliminary sketches to serve as the basis for a more detailed sketch that incorporates feedback from your classmates and the ideas you've gathered from analyzing a variety of games.

Create a vivid and engaging game world. Using your detailed sketch as a point of departure, sculpt, paint, or draw final artwork for your game. Work with team members to create a unified style for your concept art, considering the elements of art and principles of design you've learned about throughout the course.

Present your work. As a team, pitch your game idea with finished artwork to an audience of classmates and, possibly, community members and industry professionals.

Keep a journal. Keep a journal with your assignments, sketches, notes on the development of your ideas, research, and reflections on your work.

Portfolio Requirements

You will create the following items to keep in your working portfolio:

- Concept art sketches, including an overall representation of your game world, a screenshot, and one sketch of characters or objects from your game
- One detailed sketch based on one of your preliminary sketches
- One piece of completed artwork—a drawing, painting, or sculpture

You will also use your working portfolio to keep all your other coursework—sketches, journals, class work, assignments, and writing.

Vocabulary Used in This Unit

Avatar: An electronic image that represents and is manipulated by the player of a video game in a virtual environment.

Bias: A preference or an inclination that generally inhibits one's ability to judge impartially.

Concept document: A written piece summarizing the concept of a video game and outlining essential elements of the game, such as the game idea, intended audience, storyline, and unique selling points.

Elements of art: The components used to create works of art, including line, color, shape, form, texture, value, and space.

Game genres: Categories of video games that share certain features, such as type of game play and setting. Examples of game genres include action games and role-playing games.

Graphics: Visual representations that include images in addition to or instead of text. Computer-aided design, typesetting, and video games all use graphics.

Onscreen user interface: A visual display of information within the game that gives players the information they need to play the game and make decisions, such as the number of lives they have remaining, their location within the game world, or links to other menus. The user interface is also sometimes called a *heads-up display*.

Platform: The device on which a game is played. Examples of gaming platforms include gaming systems, personal computers, and handheld portable devices.

Principles of design: The organization of works of art involving the ways that the elements of art are arranged (for example, balance, contrast, dominance, emphasis, movement, repetition, rhythm, subordination, unity, variety).

Unity: The total visual effect of a composition achieved by the careful blending of the elements of art and the principles of design.

Victory condition: The situation in which a video game player is said to win the game. This can take many forms, including winning a race, gaining territory, building a structure, eliminating obstacles or other competitors, or successfully completing a puzzle. In cooperative games, all players work together to achieve the victory condition.

Video game: An interactive form of play that uses a digital video screen to manipulate images and usually involves elements of conflict, involvement with other players, a goal or way to win, and a mix of randomness (luck or fate) and decision-making.

Handout 2:
Game-Play Log

Game Title	Date Played	Summary of Game Play	Features You Like	Features You Dislike	Other Thoughts

1A.2: An Ideal World

Teacher's Notes: Technology Alternative

You may wish to have students use software programs, such as Google SketchUp™ and Adobe Illustrator™, instead of freehand drawing, to create or enhance their "before" and "after" sketches. Provide any instruction or support that students might need to use these programs.

1. Have students complete Journal 1.
Distribute **Handout 3: Journal Assignments** and have students read Journal 1.

Display a reproduction of the mural *Seeds of Peace* or another work of art that shows an ideal world. Give students colored pencils and have them complete the journal assignment.

> **Journal 1**
> Look at the artwork and jot down your responses to the following questions:
>
> - What words describe the kind of world that is represented?
> - How is that world different from the one we live in?
>
> Think about something that you would like to change in your community or in the world in general. Name the issue and think about the problems that it causes. Envision what a world without those problems would look like.
>
> Sketch quick and simple "before" and "after" drawings that show a representation of the problems caused by the issue and a representation of the problems as solved. Your sketches can be realistic scenes, collections of symbols or diagrams, or abstract drawings.

Teacher's Notes: Brainstorming Issues

If you think students might have difficulty coming up with ideas for issues, brainstorm as a class before they begin their journal assignments. Issues in their community might include nutrition and health, "green" choices at home or school, trash or graffiti on school grounds, or intolerance and disrespect. Global issues might include climate change, hunger, or homelessness. Encourage students to come up with issues that they are passionate about or that they have some familiarity with.

Note: Journal assignment 1 offers a good opportunity for formative assessment.

2. Have students discuss their journal sketches.
Divide the class into groups of three or four. Provide each group with chart paper and markers. Have groups look at their sketches and discuss the following questions:

- What issues are portrayed in the sketches?
- How do the sketches convey information about the issues? What art elements and design principles do they make use of?
- How do the sketches use art and design to let you know how the artists feel?

Possible answers: *The sketches use line, shape, color, and space to convey a mood or emotion, such as using areas of dark shading to show sadness, or jagged lines to show danger. Sketches might use the design element of* contrast *to show the difference between the "before" and "after" worlds, and the element of* balance *to show peaceful resolution.*

Using the sketches as a starting point, have each group list possible issues to address in its video game.

Have groups write their lists on chart paper and post them in the classroom. Provide time for students to walk around the room, look at each group's list, and write their comments, questions, or additions directly onto the chart paper.

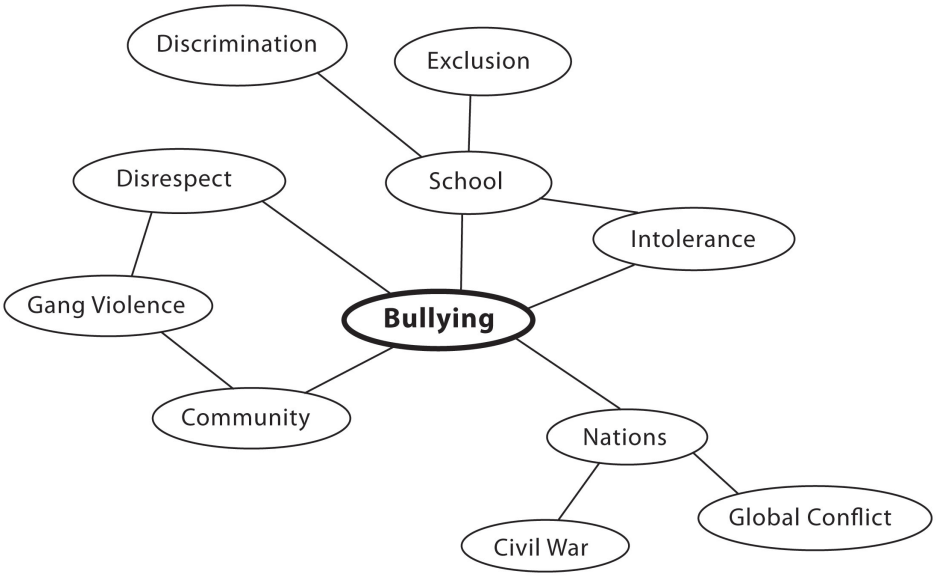
3. Begin a master list of issues and make connections.
Ask students to look at the appended lists and share their thoughts about the comments, questions, or additions.

Begin a master list of issues to display in the classroom, and suggest that students copy it into their journals.

Ask:

- What are some connections between issues in our community and in the larger world? Give examples.
- What insights do you have about these issues that you would like to share with others?

Choose one of the issues and create a web of ideas on chart paper showing the connections students make.



Sample web of ideas

Keep the master list of issues posted for the rest of Part 1. Tell students that they will have an opportunity to add to it later.

Teacher's Notes: Issues for the Master List and Web of Connections

Below are some issues that might appear on the master list:

- Bullying
- Climate change
- Destruction of the environment
- Discrimination
- Eating disorders
- Endangered species
- Guns and violence
- Homelessness and poverty
- Homework and stress
- School lunch programs and nutrition
- School dropout rates
- Tobacco, alcohol, and other drugs
- Teen pregnancy
- Trash and graffiti
- Unemployment or underemployment

Encourage students to find connections between issues in their community and in the larger world and vice versa. For example:

- Bullying relates to issues of tolerance and respect and can have implications outside of school. The way that people treat others in their family and school extends into the community and beyond. Many national, regional, and global conflicts have their origins in groups of people who feel marginalized, disrespected, or excluded from government participation or mainstream society. You might

suggest that treating people with consideration and respect is the first step toward peace and social justice.

- Climate change can connect to offering more "green" choices for using energy and other resources in the community. Solutions to environmental problems can begin in communities.
- School lunch programs and nutrition can connect to worldwide problems, such as sustainable food supplies, chemical contamination of the environment, and equal distribution of resources.
- Cleaning up trash and graffiti can contribute to a community's health and sense of pride, as well as restoring the local environment. This can have an impact on larger issues of global health and pollution, as well as creating an atmosphere of respect toward others.

Handout 3:
Your Journal Assignments

Complete the following journal assignments when you are instructed to do so by your teacher.

Journal 1

Look at the artwork and jot down your responses to the following questions:

- What words describe the kind of world that is represented?
- How is that world different from the one we live in?

Now think about something that you would like to change in your community or in the world. Name the issue and think about the problems that it causes. Envision what a world without those problems would look like.

Sketch quick and simple "before" and "after" drawings that show a representation of the problems caused by the issue and a representation of the problems as solved. Your sketches can be realistic scenes, collections of symbols or diagrams, or abstract drawings.

Journal 2

Brainstorm a list of ideas for the purpose of your video game—the information you want players to learn about the issue or an action you want players to take in the real world. Use the following questions to help you formulate your game's purpose:

- Based on what you know about your issue so far, what do you want others to learn about it?
- What ideas, information, or attitudes about the issue do you want players to become aware of?
- How do you hope players will act on what they have learned?

Journal 3

Choose an element of the game that your team has not yet settled on. For example, do team members disagree about the game's setting? Does the team still need to decide what the key characters look like?

Write a few sentences outlining your point of view or listing your ideas. Plan to share what you've written with your teammates.

Journal 4

Respond to the following questions:

- What did you like about the video game you analyzed, and why? What didn't you like, and why?
- What aspects of the game might you use in your team's game? For example, did the graphics convey an emotion that you'd like to express in your game? Was there something about the rules of play that you might adapt for your game?

Choose an image or idea from the video game you analyzed to include on your team's inspiration board.

React, Practice, Imagine: Weekly Journal Activities

In addition to the journal assignments described above, choose one of the following three activities each week to do in your journal:

- ***React***—Respond to a piece of art or media shown in class by writing about it. Then write two questions you'd like to ask the artist about the work. Try to answer the question as you think the artist might.
- ***Practice***—Sketch something from observation or from your imagination.
- ***Imagine***—Describe an art or design project that you are interested in creating.

Activity 1B: Choosing and Researching an Issue

Students form teams and choose issues for their unit projects. They begin to research their issues and gather materials for their inspiration boards.

Sequence

1B.1: ***Choosing an Issue***	Students learn about the unit project. Student teams select one issue on which to base their video game.
1B.2: ***Researching the Issue***	Teams identify the information they need to develop their game, and begin their research.
1B.3: ***Choosing a Purpose***	Teams decide on the purpose of their game—what information they want to convey or what actions they want to inspire players to take.

Materials Needed

- **Handout 4: Unit 6 Project Description**
- **Assessment Checklist: Unit 6 Project**
- **Handout 5: Sample Concept Document**
- Optional: **Self-Assessment: Teamwork** (from an earlier unit, such as Unit 3)
- **Handout 6: Choose an Issue**
- **Handout 7: Research Your Issue**
- Posterboard or corkboard for teams' inspiration boards (1 piece per team)
- Glue, tape, or thumbtacks for attaching items to teams' inspiration boards
- Optional: Examples of images or quotations for inspiration boards
- Computers with Internet access and printers
- Optional: **Appendix A: Interview Techniques**
- Optional: Camera (for team research)
- Optional: Tape recorder (for team research)
- **Handout 8: Formulate a Purpose**

1B.1: Choosing an Issue

1. Introduce the unit project.
Distribute **Handout 4: Unit 6 Project Description** and **Assessment Checklist: Unit 6 Project**. Tell students that they can use Handout 4 as a guide throughout the project and that they will use the criteria on the Assessment Checklist as they work on each project requirement. Answer any questions students have.

Engage students in a discussion by asking the following questions:

- Given what you know about today's games, how could your game make players care about your issue? How do you avoid making the game seem preachy or boring?
- Do you know of any games that teach as well as entertain? What are they, and how do they work?

Teacher's Notes: Assessing Both Individual and Team Efforts and Work

The assessment criteria for the three art projects—the three preliminary sketches, the detailed sketch, and the finished concept art—apply to individual student work. The assessment criteria for the pitch session takes into account the entire team's work. You may wish to evaluate each student's contribution to the pitch session separately, as well as looking at the team as a whole.

Note: If you have invited a game designer or developer to speak about how he or she researches a game during the conceptualization phase, have this person address your class after you introduce the unit project.

2. Introduce the idea of using a concept document to pitch a game.
Point out the pitch criteria on the Assessment Checklist. Explain that when game developers have an idea for a new game, they first pitch it to an interested publisher before figuring out the mechanics of the game or creating final graphics. This pitch is often accompanied by a two- to three-page paper called a *concept document*.

Explain that although teams will not create actual concept documents, they will think about and make decisions concerning many of the elements that are included in a concept document.

Distribute **Handout 5: Sample Concept Document**. Have students read it over and discuss the elements listed. Talk with students about how they might use this as an example when developing their own games.

3. Form game design teams.
Divide the class into teams that will work together on the unit project.

Teacher's Notes: Working in Teams

Ideally, teams will have four members, as each team develops four pieces of finished art for the unit project. Have teams consider designating team roles. For example:

- *Scribe*—records the team's observations or decisions on handouts or other sheets.
- *Facilitator*—guides team discussions, ensures that all team members understand the tasks, and encourages each member to participate.
- *Reporter*—shares the team's findings in any class discussion that follows an activity.
- *Illustrator*—draws sketches or diagrams to show information or ideas visually.

If students need more structure for working as a team, provide teams with the **Self-Assessment: Teamwork** handout from an earlier unit, such as *Unit 3: Community Storytelling*.

4. Have teams select their issues.
Distribute **Handout 6: Choose an Issue** and have teams brainstorm, consider, and choose issues for their video games.

> **Note:** Emphasize that teams should choose an issue in their own community or an issue that at least one team member knows something about.

Once teams have made their decisions, tell them that they will have opportunities later on to narrow down or broaden the scope of their issues as needed.

1B.2: Researching the Issue

1. Identify areas to research.
Tell students that they are going to find out more about their issue, including who is affected by it and how people might address it. This research will help them decide on the purpose of their game.

Distribute **Handout 7: Research Your Issue** and chart paper to each team.

Emphasize to students that their research should help them understand how the issue affects their community or the larger world. Their research doesn't need to be extensive—they should do just enough to give them ideas for their game's purpose and concept. Tell students to focus on finding images and visual ideas to help them create their concept art.

2. Introduce inspiration boards.
Remind students of the inspiration boards they created in *Unit 4: Make Me a World*. Tell students that they will compile their research findings for this project onto a team inspiration board. Give each team a piece of posterboard or corkboard and glue, tape, or thumbtacks.

Tell students that they will add to their inspiration boards throughout the research process as they think about the feel or mood of their game and come up with ideas for settings, characters, and objects in the game.

> **Note:** If teams need more guidance on creating inspiration boards, bring in images or quotations that address an issue, such as smoking or poverty, and show how these images and quotations can become part of an inspiration board.

3. Have teams begin their research.
Have teams create task lists and assign responsibility for research areas to team members. Remind students to include a completion date for each task.

Have teams begin their research. Provide support as needed.

Teacher's Notes: Supporting the Research and Interview Process

Generating Questions. If students need help coming up with areas to research, share with them the following questions for a video game about immigration:

- What are some reasons that people immigrate to the United States?
- What are the challenges faced by those seeking to immigrate legally?
- What rights do those who immigrate illegally have in the United States?
- What are the challenges faced by immigrants who want to work in the United States?
- What access do immigrants have to health care, education, and other social services?
- Who are the immigrants living in our own community? What are their living conditions like?
- Who are the stakeholders in the issue of immigrant rights?
- Who is addressing the issue of immigrant rights, both in our community and elsewhere?

Conducting Interviews. If students plan to conduct interviews as part of their research, provide them with a copy of **Appendix A: Interviewing Techniques**.

Be prepared to assist students with such tasks as making initial contact with interview subjects, or to review the questions students plan to ask. Encourage students to conduct interviews by e-mail or phone. If students do conduct in-person interviews, make sure that the interviews take place in a safe and chaperoned setting.

Recording Equipment. If you are having students use cameras or other recording devices for interviews or research, make sure that they have the necessary equipment.

Pacing. If you would like students to do more extensive research for their games, you will need to build in more time. In that case, you may want to pick a few interim dates by which students should post results of their research on their inspiration boards.

Handout 4:
Unit 6 Project Description

During this unit, you'll design a concept for a video game that engages people with an issue that you are passionate about. You'll work in a team to choose an issue and then design a concept for a video game that informs players about that issue and encourages them to become involved.

Your game concept will include the purpose of the game, how it's played, its setting, and a description of characters and objects that appear in your game's "world." You'll also create sketches and finished art depicting the game world. At the end of the unit, you'll pitch your game concept to an audience of classmates and others.

Step 1: Choose an Issue

With your team, start exploring some problems and issues that you care deeply about. These might be broad issues, such as poverty, discrimination, or global climate change, or they might be issues in your community, such as graffiti and trash in a local park, the lack of after-school programs, the nutritional value of school lunches, or the need for recycling. Make a list of all the issues you care about, then begin to narrow it down. For broad issues in particular, be sure that at least one team member knows something about the issue.

Work with your team to choose one issue on which to focus your video game concept.

Step 2: Research the Issue and Create an Inspiration Board

Work with your team to conduct research on how your issue affects people in your community and elsewhere and how people—particularly young people—can take action on the issue.

Compile your team's findings onto an inspiration board—a collection of ideas, images, and information that will help inform your decisions about how to design your game.

Step 3: Choose a Purpose

As a team, decide on the purpose of your game. Do you want to provide information, raise awareness about an issue, encourage people to take action, or all three?

Decide on your game's purpose and create a list of strategies for how to achieve it.

Step 4: Begin to Develop Game Ideas

It's time to start thinking about what your game will look like and how players will play it.

Brainstorm ideas with your team and complete a journal entry about one area you would like to develop further.

Step 5: Create the Game World

Work with your team to define your video game's world. Will your game take place in the forest, the city, or an imaginary world? What do the characters in the game look like—or are there any characters at all? What style will you use to draw the game—realistic, simplified, cartoon-like, or something else? What colors will you use—bright or drab? How do you want players to feel as they play the game, and how can you create visuals that prompt them to feel this way?

Step 6: Sketch the Concept Art

Once your team agrees on what the game world will look like, the objects or characters it includes, and the mood you want to convey, each team member will create three preliminary sketches of concept art:

- An overall depiction of the game world
- A screenshot of a moment in time
- A sketch of characters and/or objects that appear in the game world

As you work, you'll try to make your sketches exhibit unity with one another and with the sketches by your other team members.

Step 7: Create a Detailed Sketch

After receiving feedback on your preliminary sketches and refining your game concept based on your analysis of other video games, you'll work with your teammates to choose one of your original sketches to develop in more detail.

Each team will produce four detailed sketches:

- One overall depiction of the game world
- One screenshot of a moment in time
- Two sketches of characters and/or objects from the game world

Step 8: Create Finished Concept Art

After incorporating class feedback, you'll create a painting, drawing, or sculpture (such as a maquette) of a character or object from your game.

As you work, you'll focus on the ways that your art does the following:

- Uses art elements and principles of design to engage an audience
- Addresses and reinforces the game's issue and purpose
- Achieves unity with the other artwork created by your team

Step 9: Pitch Your Game Concept

At the end of the unit, you'll pitch your game concept and artwork to an audience of your classmates and others. Your pitch will include the following:

- The game's issue and purpose
- The game's concept and features, along with an explanation of how these support your issue and purpose
- Each team member's completed artwork, along with an explanation of how the game's graphics address its concept and purpose
- A convincing case for why people will be interested in playing the game

Step 10: Final Reflection on Your Work

You'll reflect on your work in this unit, answering the following questions:

- What was your favorite part of the video game design process? What did you especially enjoy about it?
- What was the most challenging part of the video game design process? What did you find especially challenging about it?
- What did you learn about your team's chosen issue during this unit?
- What did you learn about using art elements and design principles to create a unified look among different artworks?
- What did you learn about the role that art and media can play in persuading people or teaching them about an issue?
- What did you learn about the role that art and graphics play in creating a successful video game?
- What would you do differently if you were to do this project again?

Assessment Checklist 1:
Unit 6 Project

Use this assessment checklist to plan and assess your project. Your teacher will use this checklist to help evaluate your work.

Requirements	Percentage of Total Grade	Comments	
Preliminary Sketches		**Student Comments**	**Teacher Comments**
Include:			
• A compelling sketch of a representative view or overall depiction of the game world	**10%**		
• A sketch of a screenshot that depicts an engaging game world and a clear, easy-to-understand onscreen user interface	**10%**		
• A sketch of characters and/or objects that clearly belong in the game world as depicted in the other sketches	**10%**		
Exhibit unity with one another and with other artwork created by the team for the same game	**20%**		
Clearly and powerfully address the game's issue and intended purpose	**20%**		
Make effective use of the elements of art and principles of design that the student has learned throughout the course	**30%**		
Total	**100%**		

Requirements	Percentage of Total Grade	Comments	
Detailed Sketch		**Student Comments**	**Teacher Comments**
Creates a detailed view of the game world or a component of that world	**25%**		
Exhibits unity with the other artwork created by the team for the same game	**25%**		
Clearly and powerfully addresses the game's issue and intended purpose	**25%**		
Makes effective use of the elements of art and principles of design that the student has learned throughout the course	**25%**		
Total	**100%**		

Completed Artwork		**Student Comments**	**Teacher Comments**
Contributes to the depiction of a vivid and engaging game world setting	**20%**		
Depicts a vision for the game that is unified with the team's other artwork	**20%**		
Clearly supports and addresses the game's issue and intended purpose	**20%**		
Makes effective use of the elements of art and principles of design that the student has learned throughout the course	**20%**		
Demonstrates the student's competence in painting, drawing, or sculptural techniques learned throughout the course	**20%**		
Total	**100%**		

Requirements	Percentage of Total Grade	Comments	
Pitch (Team Assessment)		**Student Comments**	**Teacher Comments**
Clearly describes the game's issue and purpose and why the issue is important	**15%**		
Clearly and concisely describes the game's concept and elements	**20%**		
Uses completed artwork to help the audience understand the visual elements of the game	**30%**		
Convincingly explains how the game's concept and artwork work together to achieve the game's intended purpose	**20%**		
Makes a strong case for why the game's concept and features will engage players	**15%**		
Total	**100%**		

Handout 5:
Sample Concept Document

Title of Game: *Community Garden*

Developers: Natalie, Joseph, Devin, Keisha

Concept (Summary): Choose a plot location, plant your seeds, tend them, and watch them grow! Who will grow the most produce in a single season?

Issue and Purpose: The game addresses the issue of food independence and the importance of a local, sustainable food supply. Problems related to food supplies today include shortages of fresh foods, high prices, chemical contamination, and the large carbon footprint and unfair work practices associated with many farming methods. To address these issues, players learn about growing food, including the needs of different food crops, the cost of maintaining a garden, and the savings on grocery store bills.

After playing the game, players might want to start a community garden of their own or to grow some of their own vegetables in a window box or small lawn plot.

Features:

- Players can choose from 15 different food crops and access information on each.
- Players move from level to level. As they save money on grocery bills or sell their surplus, they are able to grow more crops and more diverse produce.
- Players choose from urban and suburban community garden settings. They can also choose by geographical region. Each location has its own challenges.
- Players are rewarded for choosing native crops, planting a variety of produce, and using organic farming methods.

Genre: The game is primarily a real-world simulation, but it has some aspects of strategy games as players make choices to optimize their gardens. The game also has role-playing aspects, as players take on the role of a gardener in a particular place.

Game-Play and Motivation: Players are motivated to grow an abundance and diversity of produce within a limited budget and time frame. The game progresses through the growing season, with variations in planting dates depending on the region chosen. Players may obtain more seeds when they reach certain levels. Players can play against their previous scores and also work with other players to maximize plantings.

Setting: The setting changes depending on the region and location chosen, but the overall look is lush and colorful when crops are growing well, and more barren when gardens are not thriving. The look is realistic but also a little cartoon-like and exaggerated, so that when the plants grow well, the garden is almost surreal.

Characters: The players are the main characters, and they can choose their own characteristics.

Target Audience: (1) Anyone interested in learning about the benefits and challenges of growing a community garden to produce food. (2) Anyone who is interested in growing things but doesn't know how to do it.

Handout 6:
Choose an Issue

Your team is ready to choose an issue for your video game!

1. Finalize the master list of issues.
Review the master list of issues you started after completing your "before" and "after" journal sketches. Brainstorm additional issues and add them to the list. Be sure that you only add issues that you care deeply about.

2. Analyze the issues on your list.
Consider the questions below for each issue on your list:

- How does this issue affect your life?
- How does this issue affect the lives of other people in your community?
- How much can ordinary people do to address this issue?
- How strongly do team members feel about working on this issue?
- How much information do you already have about this issue? How easy will it be to find additional information? (Is the issue so narrow that it will be difficult to find information? Is it so broad that it will be hard to limit the information to include?)
- How well will this issue translate to a video game? Will people want to play a game that focuses on this issue? Will the issue appeal to a wide audience?
- Many video games have a storyline and characters. Does this issue lend itself to telling a story?
- Video games often have both a goal and obstacles that make it difficult for a player to reach the goal. Are there challenges and obstacles related to this issue that will translate to a video game?

3. Choose your issue.
As a team, choose the issue that offers the most interesting possibilities for developing into a game and that one or more team members already know something about.

Consider the connections between the issue and your community and the larger world. Narrow a broad issue to give it a focus. For example, you might narrow the issue of discrimination by thinking about people in your community who have experienced it directly.

Broaden a narrow issue by relating it to a larger world issue. For example, you might broaden the issue of recycling at your school by considering what happens to the unnecessary trash generated because of the lack of recycling programs and how that impacts your region, your country, or the world.

Handout 7:
Research Your Issue

Now that you have chosen your issue, you need to find out more about it. How will you research your issue and collect and organize the information you find?

1. Focus your research.
Begin by asking the following questions and writing your answers on chart paper:

- What do I already know?
- What do I want to know?
- Where can I find out more?

Your answers will help you focus your research.

2. Choose how you will research your issue.
Here are some possibilities:

- **Conduct Internet and library research.** Ask yourself, What do I want to know about this issue? and develop a list of questions based on your answer. Focus on answering these questions in your research.
- **Interview people.** Talk to people informally, or check out your school Web site or the Internet to find individuals or groups in your school or community who are affected by the issue. Identify stakeholders (groups of people affected by the issue), and interview people with differing perspectives. For example, if your issue is graffiti, you might interview a graffiti artist, a person whose job it is to prevent or clean up graffiti, and people who encounter graffiti. Keep in mind that each person you interview has his or her own biases, so don't rely too much on any one perspective.
- **Visit sites in your community.** Find sites in your community where people are affected by or are working to address your issue. For example, if the issue is hunger, you may want to visit a local food pantry or community supper and take photographs. Always make sure that you get permission to take photographs, especially if you are photographing people.

3. Collect your information.
Document your research by taking notes in your journal, recording interviews, printing images or quotations, and taking photographs. With your team, compile all your findings onto a team inspiration board—a collection of ideas, images, and information that will help inform your decisions about how to design your video game.

Here are some suggestions for your inspiration board:

- Summarize your research from school and community newspapers and Web sites and post the highlights on your inspiration board.
- Collect and post images, clippings, or stories exemplifying "before" and "after" scenarios for your chosen issue.
- Print images or quotations about the effect of this issue on different people or about ways to address the issue.
- Take photographs or make sketches of the problems you see.
- Interview people affected by the issue and post interview excerpts.

Your research will help your team develop ideas for your game concept and graphics!

1B.3: Choosing a Purpose

1. Have teams share preliminary research.
Ask teams to compile their preliminary research findings by having each team member post something on the team's inspiration board.

2. Have students complete Journal 2.
Have students complete Journal 2 as a homework or in-class assignment.

> **Journal 2**
> Brainstorm a list of ideas for the purpose of your video game—the information you want players to learn about the issue or an action you want players to take in the real world. Use the following questions to help you formulate your game's purpose:
>
> - Based on what you know about your issue so far, what do you want others to learn about it?
> - What ideas, information, or attitudes about the issue do you want players to become aware of?
> - How do you hope players will act on what they have learned?

Note: Journal assignment 2 offers a good opportunity for formative assessment.

3. Have each team develop a purpose for its game.
Distribute **Handout 8: Formulate a Purpose**. Have students work in their teams to come up with a purpose for their game and strategies for achieving that purpose. Assure students that they can refine their game's purpose and strategies later, as needed.

4. Have teams share ideas and give feedback.
Have a member of each team share a summary of its game's purpose and strategies for achieving it. Solicit feedback from the class. This feedback should focus on suggestions for helping teams refine their purpose and strategies. Discuss as a class which strategies seem most effective and why.

Handout 8:
Formulate a Purpose

Bring the ideas you wrote in Journal 2 about your game's purpose to a meeting with your team. Work together to compile specific goals for your game.

1. Generate ideas for your game's purpose.
As a team, focus the purpose of your game by answering the following questions:

- What do you want people to learn about your issue? Is there specific knowledge that you want them to gain?

- Do you want to introduce people to historical or cultural information? If so, what? (For example, if your game is about discrimination, you might provide a timeline of the civil rights movement.)

- Do you want people to feel a certain way about your issue after playing your game? If so, how do you want them to feel?

- Do you want people to take certain actions as a result of playing your game? If so, what? (For example, do you want them to volunteer in their communities or send an e-mail to a congressperson?)

2. Decide on your game's purpose.
Discuss the ideas your team listed above and decide on the purpose of your game (i.e., educating, raising awareness, and/or offering opportunities to act). Summarize your purpose in one or two sentences below.

Purpose:

3. Think about strategies to achieve your purpose.
Discuss strategies your game could use to fulfill its chosen purpose. Answer the following question:

- What features might you build into your game to achieve your purpose?

Read the examples in the box for ideas.

Examples: Game Purposes and Strategies

Example 1

Game Title: Where There's Smoke, There's Fire

Purpose: This video game is designed to educate teens about the dangers of smoking and secondhand smoke.

Strategies: Our main strategy for giving information is to have windows pop up on the screen when players need to make decisions. The windows will display statistics about teen smoking rates and give correlations between smoking and different types of cancer, lung disease, and other health issues. Another strategy is that players will be provided with links to more information at the end of the game.

Example 2

Game Title: On the Streets

Purpose: The purpose of this video game is to raise awareness and understanding of the homeless people who live in our community and in other areas of the country and to spur people to take action to help.

Strategies: This role-playing game will present players with realistic situations in which they have stable lives and then unexpectedly face becoming homeless because of a job layoff, a serious illness, or an injury. Homeless players or players on the brink of homelessness must make decisions about seeking help. There will also be options in the game for players to strengthen support for homeless people in the game world, such as creating shelters or distributing food and blankets. These supports might directly help other players or themselves. At the game's conclusion, there will be a listing of organizations, such as food kitchens or homeless shelters, for which players can raise money, make donations, or perform volunteer work.

With your team, create a list of strategies on a separate sheet of paper, then narrow down your list to a few strategies. Write them below.

Strategies:

Part 2: Developing Game Ideas

Students brainstorm ideas for their video game concepts. They look at screenshots of video games and study the visual elements of games to analyze game styles and settings. Teams make preliminary sketches of concept art and get feedback.

Students also work in their curation and exhibition preparation teams on their year-end exhibition of work.

Length

9 50-minute sessions

Advance Preparation

- For Activity 2A.2, choose six or seven screenshots from video games that provide examples of detailed and image-rich settings, as well as information about game play. Examples should represent a variety of art styles, from realistic to cartoon-like to abstract. Include some screenshots with onscreen user interfaces and, ideally, at least one screenshot from a game that addresses a social issue. (See *Media & Resources* for suggestions.)
- Before Activity 2A.2, decide whether to use printouts of screenshots or to display them electronically. Make copies or prepare display equipment, as necessary.
- Optional: In Activity 2B.1, students create concept art sketches that may be inspired by their inspiration boards or by real objects. If you are having students use real objects, ask them to start collecting and bringing them to class.

Activity 2A: Thinking About the Game

Sequence

2A.1: Brainstorming Game Ideas	Teams brainstorm ideas for their game concepts, drawing on what they have learned so far in their research.
2A.2: Looking at Game Settings	Students look at screenshots of existing video games to learn about the use of visual elements and to compare different video game styles.
2A.3: What Does Your Game World Look Like?	Students develop ideas for the look and setting of their own game worlds.

Materials

- **Handout 9: Game Ideas**
- Students' copies of **Handout 8: Formulate a Purpose**
- Students' copies of **Handout 2: Game-Play Log**
- Six or seven screenshots from video games (see Advance Preparation)
- **Handout 10: Analyzing Game Worlds**
- **Handout 11: Our Game World** (1 for each team)

2A.1: Brainstorming Game Ideas

1. Introduce the activity.
Tell students that they will work in their teams to generate ideas for their game concepts. Distribute **Handout 9: Game Ideas** and have students read it. Point out questions 2 and 3, which ask about their game's purpose and strategies. Remind students that they have already developed preliminary ideas for these items, but they may wish to refine their ideas. Have students refer to their copies of **Handout 8: Formulate a Purpose**.

2. Have students brainstorm ideas about their game.
Encourage students to come up with as many ideas as possible as they complete Handout 9. Remind them that their ideas should support a game that relates to their chosen issue and purpose. Tell students that they may also refer to their copies of **Handout 2: Game-Play Log** for ideas. Tell students that they will have an opportunity later to further refine their game ideas.

Allow 20 minutes for teams to complete Handout 9.

> **Note:** To keep students focused on moving ahead, let them know when they have 10 minutes and then 5 minutes remaining.

3. Have students complete Journal 3.

> **Journal 3**
> Choose an element of the game that your team has not yet settled on. For example, do team members disagree about the game's setting? Does the team still need to decide what the key characters look like?
>
> Write a few sentences outlining your point of view or listing your ideas. Plan to share what you've written with your teammates.

4. Have teams discuss and incorporate journal ideas.
In their teams, have students share ideas from their journals and then incorporate them into Handout 9.

Handout 9:
Game Ideas

With your team, answer the questions below. If team members have more than one response to a question, write them all down. You will have opportunities later to refine your answers and focus your game ideas.

1. What is the name of your game?

2. What issue does your game address? What is your game's purpose in addressing this issue?

3. What strategies will you use to achieve your game's purpose?

4. What is the object of your game? How does a player win or complete the game?

5. How is the game played?

6. What is the setting or look of the game?

7. What objects or physical locations might a player see, and what will they look like?

8. Who are the characters in the game? What are they like? Is the player a character?

2A.2: Looking at Game Settings

RESOURCES

1. Describe the activity.
Tell students that they will analyze video game screenshots that show game worlds or settings. Explain that they will view a series of screenshots and analyze one screenshot.

2. Display and discuss screenshots.
Show students the six or seven screenshots that you have chosen. Point out the screenshots with user interfaces. Explain that the term *user interface*, also sometimes called a *heads-up display*, refers to the onscreen display that gives players the information they need to play the game and make game decisions. Ask:

- What kinds of information might be displayed on a user interface?

  Possible answers: *Instructions to the player, the player's progress in the game (such as the number of lives remaining, or the time left in the current round), a map showing the player's location in the game world, capabilities (such as available weapons or spells), or links to menus where players can change the game settings.*

Discuss the ways that information is displayed in the screenshot examples.

3. Model analysis of one screenshot.
Distribute **Handout 10: Analyzing Game Worlds**. Model an analysis of one screenshot, asking students for their responses to each question on Handout 10.

Teacher's Notes: Sample Screenshot Analysis from *Banjo-Kazooie*

Banjo-Kazooie is an action-adventure video game developed in 1998 and published by Nintendo. The game's story focuses on a bear named Banjo and a bird named Kazooie, who set out on a quest to rescue Banjo's sister, Tooty. Tooty has been kidnapped by the evil witch Gruntilda.

What adjectives come to mind when you see this scene?
Bright, fantastical, colorful, adventurous, goofy, youthful.

How does this scene make you feel?
Amused, excited, interested.

What can you tell or infer about the setting or world of this game? How?
The game takes place in an outdoor world—an actual geographical place with vegetation (trees). You know it's a fantasy world because there's a bear wearing a backpack and some kind of gigantic mechanical equipment. The world is lush, and it looks warm. The

world is likely inhabited by different kinds of creatures and animals. There is a bear flexing his muscles, implying that he or she is getting ready for some sort of physical task or mission.

What do you think the mood of this game is?
It seems upbeat and silly, but there are also hints of adventure, conflict, and possibly violence.

What elements of art are used to convey this mood or feeling?
The cartoon-like quality of the images gives the game an upbeat tone and a fantasy-world feeling. The bright colors reinforce this tone. However, the jagged edges on the giant machinery and the shape of the explosion in the background imply action or even violence. The bear is large and dominates the scene, suggesting that he is some kind of hero-adventurer, although the outfit and backpack he wears seem youthful—like a kid going to school. The size and shape of the backpack make it look like it might hold weapons or something useful for an adventure.

Does the image show an onscreen user interface? If so, what does it look like and what information does it convey?
This screenshot does not include a user interface.

4. Have student pairs analyze screenshots.
Have students work in pairs to complete Handout 10 as they analyze a screenshot. Give each pair one of the screenshots you've chosen, or have pairs choose their own.

5. Share screenshot analyses and discuss visual elements of games.
Ask volunteers to share their analyses of video game screenshots. Have students draw broader conclusions about game worlds in video games by asking them the following questions:

- In what different visual styles are the game worlds presented (for example, realistic, abstract, cartoon-like)? Are any game worlds drawn in similar styles? If so, which ones?
- What techniques are used by the artists and designers to convey different moods or feelings?
- What design principles do you recognize in these images? Do the objects, characters, and other design elements in one screenshot look like they belong together? How can you tell that they are part of the same game?
- What information is important to include in a game's onscreen user interface? What should a good onscreen user interface look like?

Note: If the screenshots students analyze do not show a user interface, ask students to answer based on their own experience with user interfaces.

Teacher's Notes: Visual Elements of Games

(Answers will differ depending on screenshots chosen.)

In what different visual styles are the game worlds presented (for example, realistic, abstract, cartoon-like)? Are any game worlds drawn in similar styles? If so, which ones?

Some games, like *Gran Turismo*, have a setting that looks very much like the real world, while others, such as *Banjo-Kazooie*, are based in imaginary worlds and are drawn in a cartoon-like style. Often, realistic games make an effort to model the real world, while games based in imaginary worlds bear little relationship to reality (while still including recognizable features, such as humanoid characters and buildings). Puzzle-based games such as *Tetris* may be much more abstract or two-dimensional. (You might note that realism is a continuum and that all games represent some simplification of the real world.)

What techniques are used by the artists and designers to convey different moods or feelings?

Color: Color can be used to convey mood (as students learned in *Unit 4: Make Me a World*). Bright, warm colors may indicate a happy or inviting setting, while the use of darker colors and shadows may indicate someplace scary or foreboding. (Of course, there are exceptions to these generalizations!)

Visual styles: Different visual styles can affect the mood of a game world. For example, exaggerated, cartoon-like drawings may indicate a game world that is fun or funny, while a game world that is gritty and dark may be drawn in a more realistic way. A futuristic landscape filled with hard, mechanical objects, such as robots or machines, feels very different from a tropical seascape with lush foliage and soft-looking sand. Visual style can also affect how players feel while playing the game. For example, a realistic style might make the game seem closer to reality, whereas a cartoon-like setting might distance players from emotionally connecting with game characters or content.

Other art elements: The use of line, shape, form, texture, and space can all affect mood. Jagged lines and rough-looking textures can convey tension or danger, while smooth flowing lines and shapes might suggest a peaceful world. Large open spaces might suggest freedom, while small confined spaces can make a player feel closed in.

What design principles do you recognize in these images? Do the objects, characters, and other design elements in one screenshot look like they belong together? How can you tell that they are part of the same game?

Prompt students to talk about the ways that they see artists and designers using balance, contrast, dominance, emphasis, movement, repetition, rhythm, subordination, unity, and variety. Call particular attention to the artist and designers' use of *unity*, or the careful blending of elements to achieve an overall visual effect. In a well-designed game, all the elements—landscapes, characters, objects, and typography—have a similar look and feel. Ask students about the qualities that make different objects or features in a single screenshot look like they belong together.

What information is important to include in a game's onscreen user interface? What should a good onscreen user interface look like?

Good onscreen user interfaces provide players with the at-a-glance information they need to make decisions during game play. The interface should be as clear and easy to read as possible, while still fitting the style of the game.

Handout 10:
Analyzing Game Worlds

Complete this table for one screenshot of a video game world.

What is the name of this video game?	
What adjectives come to your mind when you see this scene?	
How does this scene make you feel?	
What can you tell or infer about the setting or world of this particular game? How?	
What do you think the mood of this game is?	
What elements of art are used to convey this mood or feeling? (How does the artist or designer use line, shape, form, texture, value, and space?)	
Does the image show an onscreen user interface—an area that displays information about the game? If so, what does it look like and what information does it convey?	

2A.3: What Does Your Game World Look Like?

1. Describe the activity.
Distribute **Handout 11: Our Game World** to project teams. Tell students that the questions in Handout 11 will help them think through the visual elements of their game and prepare them to sketch their game concept art.

2. Discuss the design principle of unity.
Make students aware that as they work on Handout 11, team members will need to reach consensus on art and design elements in order to achieve a unified look for their game.

Have students read the introductory paragraphs on the handout. Ask them to recall the screenshots they analyzed. Ask:

- What are some ways that the screenshot artists or designers achieved unity?

Teacher's Notes: Achieving Unity in Game Design

Students may discuss the consistent use of some or all of the following:

- Line (curved, jagged, or straight, closed or open, etc.)
- Shape (geometric, organic, etc.)
- Perspective, depth, and shading, including color scheme
- Overall visual style, whether realistic, imaginary, or abstract, highly detailed or simplified
- Balance, dominance and subordination, rhythm, repetition, and variety, including having certain elements or objects repeat with variations or in patterns

Suggest to students that they keep these ideas in mind as they make decisions about unity in their own game design.

3. Have students create their game worlds.
Have students work in their teams to read and complete Handout 11. Tell students to write their responses directly on the handout. If they need more room, have them use their journals or a separate sheet of paper.

> **Note:** Achieving a unified look in setting and visual style will involve some compromise and negotiation. Be prepared to assist teams in reaching agreement.

Tell students that they will refer to their completed copies of Handout 11 when they make their concept art sketches.

> **Note:** Teams' initial visual ideas in **Handout 11: Our Game World** offer a good opportunity for formative assessment.

Handout 11:
Our Game World

Your team will need to consider two aspects of your game's graphics: the setting of the game world and the visual style in which that world is created. Graphics set the mood of your game and can convey important information about your chosen issue. The more compelling your graphics, the more likely your game is to catch and hold the players' attention. Graphics are also key in the marketing of your game.

To be successful, your team must decide together on the setting and style of your game. All the concept art created by your team members must exhibit *unity*—the careful blending of the elements of art and the principles of design to create a total visual effect. Think about how unity was achieved in the screenshots you analyzed. In a unified game design, all the pieces look like they belong together. A unified look will enhance the players' experience of immersion in the game world and help them suspend their disbelief, no matter how fantastical that world may be.

This handout will help your team answer two key questions:

- What is the setting and visual style of your game?
- How will your team achieve unity in its artwork and game design?

Setting

Your team will think about how the setting can enhance your game's ability to inform people about your issue, raise their awareness, or motivate them to act. Consider the following types of settings:

- ***Real-world settings.*** In some issue-based games, the setting is very realistic because the game is designed to inform viewers about an issue in the real world. For example, a game about smoking might be set in a high school, while a game about respect might be designed to look like a basketball court and bleachers.
- ***Imaginary worlds.*** A game may take place in an imaginary world similar to our own or in a completely strange world. The setting for a game that teaches about global warming, for example, might be an imaginary world where players' decisions can cause the world to flourish—or to fall apart.
- ***Abstract settings.*** Some games, especially puzzles and certain action games, may be abstract or look like board games. They may not include any characters or landscapes at all. For example, a game about obesity might have a large balance scale with places for players to put snack food choices.

Style

Once you've decided on your game setting, you can think about the style you'll use to create that setting. The style could be realistic or more like a cartoon, anime, or a watercolor painting. Think about the kinds of lines you might use (thick or thin), the colors you could use to convey a specific mood, and the shapes and forms of characters and objects in your game world. Consider how your style compares with other games you've seen.

Creating Your World

To achieve unity in your artwork, you will need to come to a consensus about the look and feel of your game. As a team, answer the following questions:

1. Where does the game take place—a real-world setting, an imaginary world, a more abstract world? What are the boundaries of this world?

2. If the game is set in a real or imaginary world, does the game play take place outdoors, indoors, or both?

   Outdoors: Describe the landscape. Is the climate warm or cold? Are there many plants, or is it dry like a desert? Is it mountainous or flat? Does the game take place in a city or town? If so, what do the buildings look like?

   Indoors: Describe the indoor space or room(s) where the game takes place. Is the area large and open or small and contained? Is it dark or bright? Dirty or clean?

3. If the game takes place in an abstract setting, describe what players will see. A geometric board, as in chess? A rectangular box with shapes in it, like *Tetris*? Is the setting based on changing patterns or colors?

4. Do people or humanoid characters inhabit the game world? If so, what are they like? How do they look? What do they wear? If the characters are not like people, what are they? How do they look and act? What objects appear in your game world, and what do they look like?

5. What kind of onscreen user interface will there be? Will certain information be available on the screen at all times? If so, what kinds of information will be given? If not, how will the player receive game information, and how will it appear?

6. What adjectives would you want people to use to describe your game's setting? What emotions do you want players to feel?

7. What style will you use to draw the game's setting—realistic, abstract, cartoon-like, or something else? Will it be simplified or highly detailed? Why have you chosen this style? What colors will you use? Why?

8. How will the game's setting and visual style reflect the issue you are addressing?

Activity 2B:
Sketching the Game World

Students create preliminary sketches of concept art for their games. They look at one another's sketches and provide feedback.

Sequence

2B.1: ***Creating Concept Art Sketches: Studio***	Each team member completes three preliminary sketches of concept art, including an overall depiction of the game world, a screenshot, and a sketch of characters or objects from the game.
2B.2: ***Responding to Concept Art***	Students post their sketches, receive feedback, and discuss the concepts of *unity* and *visual style*.

Materials

- Team inspiration boards
- Optional: Objects students bring to class as inspiration for their concept art sketches
- Students' copies of **Handout 11: Our Game World**
- Charcoal pencils
- Erasers
- Optional: Other drawing materials, such as colored pencils, pens, rulers, and T-squares
- Sticky notes
- **Handout 12: Feedback Form for Sketches**

2B.1: Creating Concept Art Sketches (Studio)



1. Describe the activity.

> **Teacher's Notes: Technology Alternative**
>
> You may wish to have students use a software program, such as Google SketchUp™ or Adobe Illustrator™, instead of freehand drawing to create their preliminary concept art sketches. Provide any instruction or support that students might need to use these programs.

Tell students that they will begin sketching their concept art. Explain that each student will create three preliminary sketches:

- A sketch of the game world—either a representative scene from the game, an overhead image, or an image that would appear on the game box
- A sketch of a screenshot at a moment in the game when an onscreen user interface is displayed
- A sketch of characters or objects that appear in the game world

All three sketches should exhibit unity with one another and with the sketches by other team members.

> **Teacher's Notes: Character and Object Sketches**
>
> Allow students to choose the number of objects or characters to depict in the third sketch. For example, if character development is key to their game, they might want to draw sketches of two or more characters. If there are no characters in the game or if objects are an important part of game play, students may want to sketch one or more objects found in their game world.

2. Have students consult a source of inspiration.
Have students look at their team inspiration board to find at least one image to use as inspiration for each sketch. Alternatively, they may use objects that they brought to class for this purpose.

3. Provide class time for sketching.
Remind students to use their responses on Handout 11 and the images or objects they selected for inspiration. Tell students to write their names and the title of their game on the back of each sketch. Give students charcoal pencils, erasers, and any other drawing materials you choose to provide.

Teacher's Notes: Using Drawing Techniques

Have students apply the techniques they've learned throughout the course—using perspective, drawing from observation, figure drawing, and drawing facial expressions—as well as what they learned about creating concept art in *Unit 4: Make Me a World*. Teach students any additional drawing techniques you think they will need to create their concept art sketches.

Note: Students' three preliminary sketches offer a good opportunity for formative assessment.

2B.2: Responding to Concept Art

1. Introduce the activity.
Distribute sticky notes and a copy of **Handout 12: Feedback Form for Sketches** to each student, and review the handout. Tell students that they will use the first page in this activity and the second page in a later activity when they revise their sketches.

Tell students that they will look at classmates' sketches, write their comments on sticky notes, and attach their notes to the sketches. For each of their own sketches, they will compile their classmates' comments onto Handout 12.

2. Post the sketches.
Post students' sketches around the room, grouping each student's sketches together, but not grouping them by team.

3. Have students view sketches and write comments.
Ask students to circulate around the room, choosing three sketches (from three different students) on which to comment. Students should consider the mood, emotional tone, and content of the game world depicted in the sketch as well as the issue addressed.

Have students write adjectives on the sticky notes to express the emotions and feelings the art elicits, as well as information about the game world and the issue addressed. Stress that their feedback should not be about the quality of the work. Have them attach their sticky notes to the artwork.

Note: To make sure that each sketch receives feedback, you may wish to assign students specific sketches to comment on. Otherwise, during the process, monitor which sketches still need feedback, and direct students to these sketches as they move around the room.

4. Discuss unity among team sketches.
Have students think about which sketches belong together and give evidence for their thinking. Then have teams reveal which sketches belong to their games and move their sketches next to one another.

Ask students the following questions for each team's sketches:

- How would you describe the style the team is using?
- Is the style consistent among the different sketches? Explain.
- Is there unity among all the sketches? In what ways are the sketches unified?

Have students offer feedback on how teams could make their work more unified in look, mood, or emotional feel. You may wish to have students discuss the consistent use of some or all of the following:

- Line (curved, jagged, or straight, closed or open, etc.)
- Shape (geometric, organic, etc.)
- Perspective, depth, and shading
- Overall visual style, whether realistic, imaginary, or abstract
- Balance, dominance and subordination, rhythm, repetition, and variety

5. Discuss feedback related to the game concept.
Ask students to try to describe the issue addressed by each team, based on the team's artwork.

To help teams further focus their artwork, have students answer the following questions:

- What changes could teams make to their sketches to clarify the issue that their game addresses?
- What changes or additions could teams make to their sketches to create a more interesting and appealing game world?

6. Have students collect and compile feedback.
Have students complete Handout 12, using comments from the sticky notes and from the class discussion. Tell them that they will use this feedback to revise their sketches during Part 3.

Handout 12:
Feedback Form for Sketches

Preliminary Sketches

Record the class's feedback for each of your three sketches.

Sketch 1: Overall Depiction of the Game World

Emotions and feelings the art evokes:

How the art conveys information about the game world and your chosen issue:

Suggestions about game concept and unity:

Sketch 2: Screenshot of a Moment in Time

Emotions and feelings the art evokes:

How the art conveys information about the game world and your chosen issue:

Suggestions about game concept and unity:

Sketch 3: Characters or Objects from the Game World

Emotions and feelings the art evokes:

How the art conveys information about the game world and your chosen issue:

Suggestions about game concept and unity:

Detailed Sketch

Record the class's feedback on how your sketch addresses each category.

Uses art elements and principles of design to engage an audience:

Addresses and reinforces game's issue and purpose:

Achieves a unified look with other sketches from the same game:

Activity 2C:
Working on the Exhibition

Students take a break from developing their game designs to work on the year-end exhibition. The class checks in about tasks related to the opening reception. Students meet in their curation and exhibition preparation teams to discuss tasks and determine what remains to be done.

Sequence

2C.1: ***Thinking About the Opening Reception***	Students brainstorm and finalize ideas for a reception for the end-of-year art exhibition, and assign tasks.
2C.2: ***Meeting in Exhibition Teams***	Curation teams decide on themes for their sections of the exhibition and select works to include. Exhibition preparation teams review responsibilities and check in on task progress.

Materials

- Students' copies of **Handout 12: Art Show! Project Description** (from Unit 5)
- Students' copies of **Handout 13: Task List** (from Unit 5)
- Students' copies of Handouts 14–16 and, if you assigned a Money Management team, Handout 17 (all from Unit 5)
- Students' copies of **Handout 18: Exhibition Timeline** (from Unit 5)

2C.1: Thinking About the Opening Reception

1. Brainstorm ideas for the opening reception.
Have students reread Step 5 on **Handout 12: Art Show! Project Description**. Ask the class to brainstorm ideas for an event at the opening reception for the exhibition. Discuss with students whether the event will be interactive. List students' ideas on chart paper.

2. Narrow down and focus the list of ideas.
Have students choose up to three ideas from the list. To help students focus, ask the following questions:

- Which of these ideas are most interesting to you?
- Which ideas are feasible?
- What challenges might these ideas present, and how might the challenges be overcome?

Students should be specific with their ideas. For example, if they want to have a student dance performance, have them decide which dance group to invite and how dance fits into the themes of the exhibition.

3. Assign tasks to exhibition preparation teams.
Have teams identify tasks for the opening reception and add them to their copies of **Handout 13: Task List** (for their exhibition preparation teams). Remind students to assign a team member to be responsible for each task.

2C.2: Meeting in Exhibition Teams

1. Have curation teams meet to discuss progress.
Have teams discuss and make initial decisions about the following:

- The theme for their section of the exhibition
- The works they would like to select
- The progress they have made on their task list
- Whether they need to add tasks or reassign responsibility for tasks

Remind teams that their decision about artworks to include is still tentative because other teams may want to use the same pieces. Final negotiations can take place later.

Have team members review their copies of **Handout 12: Art Show! Project Description** and **Handout 13: Task List** (for their curation team). Circulate among teams to answer questions, check in, and make sure that they have accounted for all tasks.

2. Have exhibition preparation teams meet to discuss progress.
Have teams discuss and make initial decisions about the following:

- The progress they have made on their task list
- Whether they need to add tasks or to reassign responsibility for tasks

Have team members review their updated copies of **Handout 13: Task List** (for their exhibition preparation teams) and their team handout (Handouts 14–16 and, if assigned, Handout 17). Circulate among teams to answer questions, check in, and make sure that they have accounted for all tasks.

3. Review the master timeline for the exhibition.
As a class, go over the master timeline on **Handout 18: Exhibition Timeline**. Check off completed tasks and make sure that teams are on track with their remaining tasks. Discuss any new issues that may have arisen or any changes to the schedule.

Part 3: Analyzing Video Games

Students explore the following questions:

- Why do people play video games?
- What role do a game's visual elements play in attracting and involving players in the game?
- How can video games engage players in a serious issue while remaining enjoyable to play?

Students analyze two types of video games: games designed for entertainment and games designed to teach about, advocate for, or explore an issue. Students critique games in order to revise their own game concepts and one of their preliminary sketches in preparation for creating their final artwork. Students also learn about careers in the game industry.

Length

7 50-minute sessions

Advance Preparation

- Before Activity 3A.2, select entertainment- and issue-based video games from the list of appropriate games that you created before beginning the unit. Try to include a variety of game types.
- Decide how students will interact with these video games, either as part of a class demonstration or in teams at individual gaming stations or with hand-held devices. Gather the necessary equipment.
- Optional: If you have arranged for AME professionals to visit and critique students' work in Activity 3B.2 or talk to students about their careers in Activity 3B.3, finalize these arrangements.

Activity 3A: Analyzing Video Games

Students analyze both entertainment- and issue-based games to inform their own game designs.

Sequence

3A.1: ***Why Do People Play Games?***	Students discuss the appeal of video games and describe what is compelling about some of their favorite games.
3A.2: ***Looking at Entertainment- and Issue-Based Video Games***	Students work in teams to analyze both entertainment- and issue-based video games, looking at such aspects as genre, setting, and characters.
3A.3: ***Sharing Video Game Analyses***	Students write about a game they analyzed and discuss similarities and differences between entertainment- and issue-based games.

Materials

- Students' copies of **Handout 2: Game-Play Log**
- Video games and equipment for playing or displaying the games (see Advance Preparation)
- **Handout 13: Video Game Analysis** (2 copies per team)
- Team inspiration boards
- **Handout 14: Video Game Genres**

3A.1: Why Do People Play Games?

1. Discuss the appeal of video games.
Ask students why people play video games.

- What are the attributes of a successful video game?

List key words and phrases on chart paper and have students record them in their journals.

> ***Possible answers:*** *Fun, challenging, an escape from reality, a distraction, a social activity*

2. Share favorite games.
Ask volunteers to name their favorite games and describe what they like about them. Encourage students to discuss the games they have been playing and writing about in their Game-Play Log (Handout 2). Add key words and phrases to the list. Post the list and tell students that they will add to it after they analyze some other video games.

3A.2: Looking at Entertainment- and Issue-Based Video Games

1. Assign video games to teams.
Tell the class that they will play and analyze an entertainment-based game and an issue-based game. They will use their analyses to revise their own game concepts and designs.

Divide the class into teams, which may be the same as or different from their project teams. Assign two games to each team. Distribute two copies of **Handout 13: Video Game Analysis** to each team and tell students that they will complete the handout for each game.

> **Note:** As an alternative to teams, you may want to display the games on a screen and have volunteers play while the others observe and analyze.

2. Provide time for playing the games.
Have each team play the two video games and complete Handout 13 for each.

Teacher's Notes: Sample Analysis of *UN Food Force*

RESOURCES

UN Food Force is an issue-based game consisting of six separate missions. You may want students to analyze only one or two missions. See *Media & Resources* for a link to this game.

Title: *UN Food Force*. The title reflects what the game is about in that players are part of a "force" or group that brings food to people. UN stands for United Nations and suggests who sponsors or endorses the game.

Game Concept: The player, acting as part of a World Food Program crisis team, performs tasks that build on one another—locating people in need of food, creating nutrition packs to give them, dropping food supplies, locating more food resources from around the world, trucking that food into camps, and then helping a village develop its own capacity to grow food for the future.

Issue and Purpose: The game addresses the issue of world hunger and the ways that the UN's World Food Program supplies needy people with food. Players learn reasons for food scarcity (war, drought, climate change) and how the UN World Food Program functions. Players can take action after the game by visiting the game's Web site, which has links under "How to Help" for raising money, making donations, and increasing awareness in your community about the UN World Food Program.

Features: The game has a variety of "missions," which might appeal to a range of player interests. Between missions, a narrator describes how the UN World Food Program works, while real-world video footage plays.

Game Play: Game play varies according to mission. For the aerial reconnaissance mission, the player controls a helicopter by using a mouse, and the goal is to cover as much ground and locate as many people as possible. Players earn points for completing mission tasks. There is no way to win the game, per se, although players can post their scores online and compare them with other players.

Game World (Setting): The game is set on the fictional island of Sheylan in the Indian Ocean. The landscape is dry and brown, with scraggly vegetation. The roads are in disrepair. The mood throughout most of the game is one of crisis and desperation. However, if players are successful at building the village's capacity to grow its own food during the final mission, the mood changes to one of optimism and hope for the future.

Characters: The player takes on the role of a rookie member of the crisis team working to provide food. Other team members directly address the player to explain each mission. The player interacts with the environment differently during each mission—for example, during the truck supply mission, the player controls the movement of the truck by using a mouse, and completes specific tasks, such as rebuilding a bridge, by moving pieces with the mouse.

Target Audience: The game seems to be designed for a middle school-age audience from English-speaking countries (especially the United States). The tasks are straightforward and easy to understand, and the information in the game is presented in simple, straightforward language.

3A.3: Sharing Video Game Analyses

1. Have students complete Journal 4.
Have students complete **Journal 4** for one of the video games they analyzed.

> **Journal 4**
> Respond to the following questions:
>
> - What did you like about the video game you analyzed, and why? What didn't you like, and why?
> - What aspects of the game might you use in your team's game? For example, did the graphics convey an emotion that you'd like to express in your game? Was there something about the rules of play that you might adapt for your game?

Choose an image or idea from the video game you analyzed to include on your team's inspiration board.

2. Share journal entries within teams.
Have team members share the successful and unsuccessful aspects of the game, based on their responses in Journal 4. Tell them to highlight ideas to use in their own game.

Have each team member add an image or idea to the team's inspiration board, explaining what he or she added and why.

3. Record successful and unsuccessful video game attributes.
Ask students the following questions, and add key ideas from their responses to the list of successful game attributes and to a new list you start of unsuccessful attributes:

- What did you like about the entertainment-based game? What aspects of this game need improvement?
- What did you like about the issue-based game? What needs improvement?
- What differences did you notice between the two types of games?

  Possible answers: *Entertainment-based games generally have one purpose—for players to have fun—while issue-based games also inform or inspire. This means that the game play in an issue-based game has to have a larger purpose (there has to be a reason for someone to fly a helicopter, for example). Issue-based games may also take a different form from typical video games, because the subject matter is so specific. Issue-based video games are more likely to present information, either as part of game play or at the end.*

- What similarities are there between entertainment-based video games and issue-based video games?

  Possible answers: *Both types of games have action that drives players forward and engages them in the game, and both are fun to play.*

- What tradeoffs and challenges might issue-based video game designers face?

  Possible answers: *It may be a challenge to balance providing meaningful information with making an enjoyable game that is not too complex or boring. It may be challenging to design a game that isn't superficial—that actually teaches players something—and is also fun.*

- What have you learned from your experience playing these games that you want to keep in mind for designing your own issue-based game?

  Note: If students are more engaged by the entertainment-based games more engaging, push them to think about how they could use those engaging components to make their own issue-based games more appealing.

Keep both lists of attributes posted in a prominent location. Students will use them again in Activity 3B.

Teams might also add to their inspiration boards as a result of this discussion.

Teacher's Notes:
Attributes of Successful and Unsuccessful Video Games

The posted lists of video game attributes may include the following.

Successful

- Fun
- Challenging
- Escape
- Exciting
- Multiple levels
- Cool special effects
- Allows me to be someone else
- Uses quick reflexes
- Competitive
- Encourages cooperation or collaboration
- Easy to learn
- Allows for creativity
- Always something new
- Allows me to interact with other players
- Informative
- Good storyline
- Makes me think

Unsuccessful

- Boring
- Too repetitive
- Not challenging enough (or too challenging)
- Difficult to learn
- Not enough incentive to win or keep playing
- Takes too long to play (or is too short)
- Wasn't the type of game I find interesting
- Graphics not engaging
- Too complicated or too much going on

4. Introduce the idea of *genre*.

Tell students that the video game industry categorizes games into particular types, or *genres*. Remind them that they gave some thought to the type of game they would develop when they brainstormed concept ideas in Handout 9.

> **Note:** To help students understand the concept of *genre*, you may want to point out that they have probably used genre often to categorize film or literature. Noir, horror films, romantic comedies, and dramas are all film genres. Mysteries, gothic romances, historical fiction, and coming-of-age stories are a few of the genres of fiction.

Distribute **Handout 14: Video Game Genres** and have students read it. As they read, ask them to consider the following questions:

- In what genre would you categorize the video games you just played? Why would you categorize them that way?
- Did any of the games you played appear to combine genres (for example, having players assume a role but also get involved in a race)?

Discuss students' responses to these questions.

Explain that because issue-based games have a purpose that goes beyond entertainment, they may not fit easily into one of the genres described in the handout. Emphasize, however, that even though games can span or combine genres, thinking about genres will help students formulate and refine their ideas for their own games. Ask:

- Would the game you're developing fit into one or more of these genres? Explain.

Handout 13:
Video Game Analysis

Work with your team to analyze two video games. Fill out the chart below for each game. Items marked with an asterisk (*) are only for the issue-based game.

Game Title: _____

Title Is the title engaging? How does it reflect what the game is about?	
Game Concept Summarize the main idea of the game in one or two sentences.	
***Issue and Purpose** What real-world issue does the game address? What is the game's purpose? (For example, does the player learn anything? Can the player take action on the issue?)	
Features What features are unique to this game or might be good selling points? List two or three of the most important.	

Game Play What goal does the player try to achieve? Are there challenges? (For example, does the player build something, collect objects, race to the finish?) Is there a way to win the game, and if so, how?	
Game World (Setting) Where does the game take place? What is the mood, or how does it make you feel?	
Characters What is the player's role? What point of view does the player have in the game?	
Target Audience Who might play the game? Is it aimed at a particular gender, culture, or age group? Why do you think that?	

Game Critique	
Was the game enjoyable? Would you play it again? Why or why not?	
What did you like or dislike about the game's graphics or other visual elements? Explain.	
*Was the game effective in teaching or influencing you about an issue? Why or why not?	
How would you improve the game to make it more enjoyable or more effective in teaching and influencing people about an issue?	

Handout 14:
Video Game Genres

There are many types, or genres, of video games. In competitive games, a player competes against other players or against the game in order to win—or to achieve what's called the *victory condition*. In cooperative games, all players work together to achieve the victory condition. And some games have no victory condition—rather than try to win, players set their own goals or use the features to explore the game world.

Most games can be categorized under one of the genres below, though some games might not fall under any of these genres and some might fall under more than one.

Puzzle Games

In puzzle games, the core mechanics center around the completion of a logical, spatial, language, or other type of puzzle. For example, in *Tetris*, the player ponders a simple spatial puzzle, arranging shapes composed of blocks to complete finished lines.

Examples: *Puzzle Quest, Plants vs. Zombies*

First-Person Shooter Games

Two key characteristics define these games. The first is that the camera is directly embedded at the eye level of the player's *avatar* (electronic image), giving the player a "first person" perspective. The second is that the player's primary interaction with the world is through the collection and application of weaponry (hence the word "shooter").

Examples: *Borderlands, Jet Force Gemini, Wolfenstein 3D*

Action Games

Action games put players into exciting, action-based roles, engaging them in combat, acrobatics, super powers, or other sets of reflex-based interaction in a fictional environment. These games often use an "over the shoulder" camera, or "third person" perspective, to allow players to see their avatars in the environment.

Examples: *Dynasty Warriors: Strikeforce, Devil May Cry*

Role-Playing Games

The strict definition of a role-playing game is one in which the player takes on a rich identity in a game world and explores the world through that perspective. The genre, however, also includes games that use number-based statistical systems (for example, strength, hit points, and weapon damage) to evaluate the player's capabilities. Players cycle through adventures to increase their "stats" and tackle stronger opponents.

Examples: *Dragon Age, Ultima IV*

Massive Games

Massive games are played exclusively online, where players log in to a large, shared, and persistent world. This world exists for other players even when you aren't playing, and special events and interactions occur whether you are logged in to the experience or not. Massive games are often developed as role-playing games called *massively multiplayer online role-playing games*.

Examples: *World of Warcraft, Runescape, EVE Online*

Real-Time Strategy Games

Real-time strategy (RTS) games usually involve the control of a group of military units, where battlefield commands and maneuvers define the strategy. These games also often involve managing and producing resources; players fight over and control these resources, which can then be turned into more units or upgrades to existing units. The "real time" component of RTS refers to the fact that the game does not pause to allow you to consider your next move, and players must make tough decisions about which components of their teams to attend to at any given time.

Examples: *Dawn of War II, Sins of a Solar Empire*

Turn-Based Strategy Games

Turn-based strategy games are similar to RTS games, but allow players to consider all of their options. These games are often more detailed in their mechanics and lean toward historical accuracy or simulation-like modeling of the game's world.

Examples: *Civilization IV, M.U.L.E.*

Racing Games

Players control a vehicle and compete in a race. These games range from simulation racing to more outrageous "kart" style racing, but all involve the player using his or her reflexes and vehicle's capabilities to get ahead of the pack.

Examples: *Wipeout HD, Gran Turismo*

Sports Games

These games re-create a particular sport. They generally reference a set of rules from a real-world game to build their structure. Interestingly, in many sports games, the player controls a team from the viewpoint of someone watching sports on TV, rather than from a first-person perspective or other viewpoint.

Examples: *Blood Bowl, Madden NFL 10*

Platformer Games

Platformer games involve exploration puzzles that require the player to use well-timed jumps or other acrobatic abilities to navigate a challenging environment. These games have their roots in 2-D (side-scrolling) classics, but have moved on to include games developed in 3-D space as well.

Examples: *Tomb Raider, Braid*

Adventure Games

Adventure games are an old and venerable genre, with their roots in the earliest text adventure games, before graphics were feasible for gaming. Adventure games are generally narrative-driven, placing the player in a story. While exploring the game's world, the player acquires inventory objects, which can be combined and used with objects in the game's environment in order to solve puzzles. Solving these puzzles allows the player to continue exploring and move the narrative forward.

Examples: *The Neverhood, Tales of Monkey Island*

Fighting Games

Fighting games pit characters against one another in martial combat. They are often two-player games or one-player games with computer artificial intelligence substituting for the second player. The player uses a specific fighter's array of special moves and combinations to defeat opponents. To win, players need a deep understanding of the other character's capabilities, strong pattern recognition skills, and lightning reflexes.

Examples: *Soul Calibur IV, Samurai Shodown*

Rhythm Games

Players take on the role of musicians and perform beat-matching interactions that parallel a component of music in order to win. These games often feature peripheral controller devices that emulate real-world instruments.

Example: *Guitar Hero, Dance Dance Revolution*

Activity 3B: Revising Game Ideas

Students apply what they have learned about video games to revise their game concepts and develop one of their preliminary sketches into a detailed sketch. They also learn about careers in the video game industry.

Teacher's Notes: Professional Critique of Students' Work

If possible, have AME professionals (particularly those who work in the gaming industry) critique students' work at this stage and make suggestions for revisions that students can incorporate into their completed artwork. If you choose to have professionals critique student work, you may want to have students present their revised game concepts and sketches together at the end of 3B.2.

Sequence

3B.1: Revising the Game Concept	Students revise their game concept ideas, present their revised ideas to the class for review, and incorporate class feedback.
3B.2: Creating a Detailed Sketch: Studio	Students choose one preliminary sketch to develop into a more detailed sketch, using class feedback and revisions to their game concept. They then share their detailed sketch with the class.
3B.3: Examining Careers	Students learn about careers related to their unit work and check in on their AME Career Research projects.

Materials

- Posted lists of successful and unsuccessful video game attributes (from Activity 3A)
- Teams' copies of **Handout 9: Game Ideas**
- Teams' copies of **Handout 11: Our Game World**
- Blank copies of Handout 9
- Teams' copies of **Handout 5: Sample Concept Document**
- Teams' copies of **Handout 13: Video Game Analysis**
- **Handout 15: Select Team Art**

- Students' three preliminary concept art sketches
- Students' copies of **Handout 12: Feedback Form for Sketches**
- Team inspiration boards
- Optional: Objects students brought to class to inspire their sketches
- Charcoal pencils
- Erasers
- Optional: Additional drawing materials, such as colored pencils, pens, inks, rulers, and T-squares
- Sticky notes
- **Handout 16: Unit 6 Career Information**
- Students' copies of **Handout 7: AME Career Research Project** (from Unit 5)

3B.1: Revising the Game Concept

1. Have teams review and revise their game concept ideas.
Ask teams to study the posted lists of successful and unsuccessful video game attributes and then answer the following questions:

- How can we revise our game concept to incorporate what we have learned about successful video games?
- What are the potential problems with our game concept, and how can we address them?
- How can we make sure that our game does a good job of informing and/or inspiring people about our issue while still being fun to play?

Provide class time for teams to add to and revise their game concept and visual ideas on their teams' copies of **Handout 9: Game Ideas** and **Handout 11: Our Game World**. Distribute blank copies of Handout 9 to teams who need them.

Suggest that teams might also refer to **Handout 5: Sample Concept Document** and **Handout 13: Video Game Analysis** for additional information on how to structure their ideas.

2. Have teams present their game concepts.
Have each team present its game concept to the class. Tell teams that they may ask for specific feedback, such as which of two game-world settings to use or how to display information about their game's issue. Encourage the class to provide feedback in other areas as well.

In addition, you may wish to suggest questions such as the following:

- Does the game concept clearly address the issue? If not, how can the team address it more clearly?
- How does the game concept incorporate what the class has learned about successful video game design? Are there other elements of video game design that the team might include?
- What aspects of the game seem fun or interesting? How can the team make the game even more engaging for players?

3. Have teams incorporate feedback.
Have students take notes on the class feedback, as well as other ideas that occur to them during the discussion. Provide time for students to add this information to their team's copy of Handout 9. Provide additional blank copies of the handout as needed.

Have teams revise or add to their copies of **Handout 11: Our Game World** based on the changes they made to their game concept.

3B.2: Creating a Detailed Sketch (Studio)



1. Introduce the activity.

> **Teacher's Notes: Technology Alternative**
>
> You may wish to have students use software programs, such as Google SketchUp™ or Adobe Illustrator™, instead of freehand drawing to create their detailed sketches. Provide any instruction or support that students might need to use these programs.

Distribute **Handout 15: Select Team Art**. Tell students that each team member will choose one of his or her preliminary sketches to develop as a more detailed sketch. Explain that team members should decide together which sketches to revise, using Handout 15 as a guide. The final concept art for each team must include the following:

- One overall depiction of the game world
- One screenshot of a moment in time
- Two depictions of characters and/or objects that appear in the game world

2. Have teams choose sketches to revise.
Provide time for teams to complete Handout 15 and select the sketch that each team member will refine. Teams will need to refer to all the team members' preliminary sketches as well as their copies of **Handout 12: Feedback Form for Sketches** to review the class's comments.

> **Note:** Ideally, students will choose the sketch they want to work on, but make teams aware that they may need to negotiate.

3. Have students create their detailed sketch.
Give students charcoal pencils, erasers, and any other drawing materials you choose to provide. Tell students to review the class feedback they noted on Handout 12. Provide class time for students to create a detailed sketch, using this feedback and incorporating any changes their team has made to their game's concept or visual ideas. They may also refer to their team inspiration board or objects they brought into class for ideas.

> **Note:** The detailed sketch offers a good opportunity for formative assessment.

4. Have students review detailed sketches.
Have students post their detailed sketches, grouping them together by team. Distribute sticky notes for each student to use for comments.

Ask students to circulate around the room, choosing three sketches on which to comment. Tell students to focus their comments on how well each drawing does the following:

- Uses art elements and principles of design to engage an audience
- Addresses and reinforces the game's issue and purpose
- Achieves unity with the other drawings from the same game (considering art and design elements as well as visual style)

Have students write words and phrases on the sticky notes and attach them to the artwork.

> **Note:** To make sure that each sketch receives feedback, you may wish to assign students specific sketches to comment on. Otherwise, monitor which sketches still need feedback and direct students to these sketches as they move around the room.

5. Have teams review feedback.
Have students collect and review the comments on their own sketches, and add their feedback to the second page of **Handout 12: Feedback Form for Sketches**. Have students meet in their teams to discuss the feedback they received.

6. Conduct a concluding discussion.
As a class, ask students to answer the following questions for each team's work:

- How successful are the detailed sketches in using elements of art and principles of design to engage an audience? How could they be improved?
- In what ways do the sketches support the game's concept and purpose? Are there better ways that the sketches could do this?
- In what ways do the team's four sketches exhibit unity? How might the team achieve an even more unified look?
- What other elements of each team's sketches work well, and which could use improvement?

Have students use Handout 12 to take notes on any additional ideas or suggestions from the discussion that are relevant to their sketches.

3B.3: Examining Careers

1. Present career information.
Explain to students that the research, sketching, and concept development they have been doing is similar to what video game designers do in the early stages of developing a video game.

> **Note:** To give students an idea of how many people work on developing a single video game, have them look at the list of credits on one or more of the games they have been playing.

Distribute **Handout 16: Unit 6 Career Information** and have students read the descriptions of the key careers.

Ask the following questions:

- What connections do you see between the work you've done in this unit and the careers described in the handout?
- Are you interested in pursuing any of these career pathways? If so, which one(s), and why?

Discuss with the class the connections between their work in this unit and the work that game testers, designers, artists, and design teams do.

Teacher's Notes: Having AME Professionals Discuss Their Work

This activity is a good place to have AME professionals (especially those in the gaming industry) discuss their work with students. You may want to combine their presentation with a critique of student work. As an alternative, have students view online interviews with game industry professionals. (See *Additional Resources for Teachers* for links to interviews.)

2. Check in with students on their AME Career Research projects.
Have students look at their copies of **Handout 7: AME Career Research Project** (from Unit 5) to identify the steps they have completed. Tell them that by now they should have completed Step 4: Conduct an Informational Interview.

Remind students that they will present the research from their Career Research project in Unit 7.

Handout 15:
Select Team Art

As the next step in developing your finished concept art, you will create a detailed sketch based on one of your preliminary sketches. The final concept art for your team must include the following:

- One sketch of an overall depiction of the game world
- One sketch of a screenshot of a moment in time
- Two sketches depicting characters and/or objects that appear in the game world

With your teammates, select two sketches from different teammates for the first two categories (game world and screenshot) and four sketches for the final category (characters and objects). Be sure to include at least one sketch from each team member. Refer to your copies of **Handout 12: Feedback Form for Sketches** to review the class's comments on the selected sketches.

Answer the questions below to help you select your team's final four sketches:

- Which sketches work well together with the overall game concept?

- In which sketches do the art and design elements best incorporate your team's revised game concept and graphics ideas?

- On which sketches did team members receive the most useful feedback?

- Which sketches offer the most potential as finished concept art?

- Which sketch is each team member most interested in developing into finished artwork?

Handout 16:
Unit 6 Career Information

Range of Careers Related to Unit 6

Below are some of the AME careers that make use of the skills you're learning in Unit 6:

- Game tester
- Game designer
- Lead designer
- Game artist
- Technical art director
- Concept artist
- Character artist
- Environment and prop artist
- Special effects artist
- Level designer
- Animator

Key Careers

Four key AME careers that make use of the skills that you are learning in Unit 6 are *game tester*, *game designer*, *lead designer*, and *game artist*.

Game Tester

Game testers play games in order to test the software, find *bugs* (problems with a game's functions), spot mistakes, and write reports to ensure that games work properly before they are released.

Playing games every day may seem like fun, but game testers must be passionate about game development and willing to do tedious, time-consuming tasks. They often need to play the same level of a game for hours at a time, repeating plays with every possible variation. They need to be detail-oriented in order to find potential problems. (Releasing games with errors in them disappoints fans and hurts the reputations of game creators.) Because they need to record detailed instructions about problems, game testers must also have excellent written and oral communication skills.

Game testers may do compatibility testing to make sure that games play smoothly on different computers and operating systems. Game testers also test variables, such as how many players a game can handle and how long it can be played without crashing.

Pathway: Game testers are not required to have degrees, although many testers have a degree in their area of interest (such as art or computer science). Portfolio samples are not usually required, nor is experience (other than game-playing experience). However, game testers should have an up-to-date understanding of popular games. Like most people in the game industry, testers must be willing to work long hours, especially during the last stages of game development.

Game testers usually freelance at first and later may find full-time employment with the companies that hired them as freelancers. Many people in the game industry recommend breaking into the industry this way, because a tester gets to see the inner workings of game development and to develop relationships with people in game companies.

Game Designers and Lead Designers

Game designers come up with concepts and ideas for games. They are involved in a game's development at every stage, from preproduction through production and launch.

A game designer might come up with the main idea for a game or might design a game that another person has conceptualized. For example, a game designer might develop ideas for a game based on a comic book or movie or might think up new game-play ideas based on a concept from another member of the design team.

Game designers need a broad set of skills and knowledge. They must understand game trends, game platforms (for example, gaming systems, personal computers, and handheld portable devices), how games are played, who plays them, and stages of game development. They need to have skills in software and technology, art and design, and writing and storytelling. Many game designers specialize in a particular area.

Companies with teams of game designers often create positions for lead designers, who must also have the skills and knowledge described above. Lead designers work in large development teams. They are responsible for overseeing and mentoring other game designers and for presenting the design team's ideas to others within the company. They have responsibility for and creative control over their games.

Both game designers and lead designers may have the following range of duties:

- During preproduction:
  - Coming up with game concepts and innovative ideas for game play
  - Conducting research related to game concepts
  - Guiding the creative direction of a game
  - Collaborating with the development team to create game design documents that explain a game's technical specifications, art, and style, and describe how the game will be played
  - Overseeing the creation of game prototypes
  - Presenting ideas to team members, directors, and producers
- During production:
  - Updating design documents as games are developed
  - Working with the art team to develop design reference guides (such as character models and concept art)
  - Communicating with all members of the development team: providing feedback, overseeing development, and making sure that team members understand the components of game design relevant to their own work
  - Collaborating with quality assurance supervisors and game testers to fix bugs
  - Tracking schedules to ensure that development tasks are completed on time

Pathway for game designers: Game designers often break in through game testing (see Game Tester, above) or through art and design internships, and then move into game production and design after they have been hired by a game company. Game designers are usually employed full-time, but sometimes they are hired on a short-term basis for specific projects.

Game designers usually have a bachelor's degree in game design, art, or computer science. They also need three to five years of experience in a specialty area, such as character design or *level design* (the design of different challenges, or levels, of a game). A portfolio that shows a wide range of design and game experience is also important. Game designers need to work well as part of a team and have good oral and written communication skills. As their experience in game design increases, game designers may become lead designers.

Pathway for lead designers: Lead designers need the same education and experience as game designers and usually have two or more years of experience as game designers. Since they oversee a team of game designers, they need leadership skills. In addition, lead designers make presentations, so they must be effective and persuasive communicators. Lead designers may become chief creative officers or executive producers.

Game Artist

Game artists create thematic artwork and special effects for video and computer games. They often specialize in 2-D or 3-D games. They may further specialize in such areas as textures, characters, or background environments. Game artists use traditional art methods and digital art software and need excellent observational drawing skills. Game artists create both organic and geometric artwork and visually communicate emotion and mood, often working within set style guidelines.

Game artists need mathematics and science skills. Geometry and trigonometry are useful for planning distances between points and simulating movement. Calculating trajectories for flying objects, rotating vehicles, and determining whether a collision will take place all require math and physics skills.

Pathway: Game artists have an arts background and have done internships and/or freelance work. They may become senior artists, lead artists, or art directors. The specialties of game artists—as well as their level of seniority and their titles—often vary from company to company.

Part 4: Creating Final Art and Making the Pitch

Students create finished concept art and deliver a pitch for their games. They reflect on the work they did and the effectiveness of using video games as a means to inspire, inform, and motivate people about an issue.

Length

10 50-minute sessions

Advance Preparation

- Collect necessary art supplies. Each student has the option of choosing a medium in which to create a drawing, painting, or sculpture based on his or her detailed sketch. The type and number of art supplies needed depends on the medium each student chooses.
- Optional: Finalize arrangements with AME professionals or invite community members if you plan to have them attend the pitch session.

Activity 4A: Creating Final Artwork (Studio/Technique)

Students create finished concept art based on their detailed sketches, incorporating the feedback they received from their classmates.

Materials

- Materials to create student artwork, for example:
  - Paper
  - Colored pencils
  - Canvas
  - Paintbrushes
  - Paints
  - Clay
  - Modeling tools
  - Sculpting boards
- Students' detailed sketches
- Team inspiration boards
- Optional: Objects students brought to class to inspire their preliminary sketches

1. Introduce the art activity.
Tell students that they will create their final concept art based on their detailed sketch and their classmates' feedback.

2. Have students decide on the medium for their concept art.
Tell students what media are available for creating their final artworks. Have students meet in their teams to discuss the media they will use to create their artworks.

Teacher's Notes: Choosing Media and Technology

The media in which students work will depend on the materials you have available in your classroom and your students' knowledge and preparation. You may wish to conduct additional color and media studies as part of the process. For example, if students are planning a sculpture, such as a character maquette, you might have them do a turnaround model sheet in advance. Depending on the media students choose and the scale of their projects, you may need to allow for additional studio time.

If you wish to give students the option of using technology to create their final concept art, Autocad™, Photoshop™, and Adobe Illustrator™ are software programs that students can use. Provide any instruction or support that students might need to use these programs.

Remind students to choose materials that work with their game's purpose and design ideas and contribute to the unity of their team's artwork. Teams should discuss ways that they can show unity when using different media, for example, through the use of color or value, lines and shapes, and overall visual style, such as cartoon-like, realistic, or abstract.

3. Prepare students to begin their artwork.
Provide students with materials. Teach any techniques needed for them to complete their concept artwork.

To prepare to create their artwork, have students review the feedback they received on their detailed sketches and gather materials from their team inspiration boards or objects they brought from home.

Teacher's Notes: Teaching Techniques

For this assignment, students should apply the drawing, painting, and sculptural techniques they have learned throughout the course, as well as what they have learned about the elements of art and principles of design. Activities related to creating concept art in *Unit 4: Make Me a World* and exercises in developing characters in *Unit 5: Creating Characters* might be particularly useful. You may need to teach students additional techniques, such as the following:

- *Drawing:* You may have students study proportion in figure drawing.
- *Painting:* You may have students use value to create tints and shades of color.
- *Drawing and painting:* You may have students think about light sources, shadows, and shading, or use a technique such as chiaroscuro to create depth.
- *Sculpture:* You may teach students advanced modeling techniques.

4. Provide class time for students to complete their artwork.
Have students create their final concept art. Circulate and check in with students as they work, and provide necessary support or assistance.

Remind students to concentrate on making their team artwork visually unified and clearly in the same style, even if team members are working in different media.

Activity 4B: Preparing and Delivering the Pitch

Students work in their teams to develop and deliver the pitch for their games. They reflect on what they have learned throughout the unit.

Materials Needed

- Note cards
- Teams' completed copies of **Handout 9: Game Ideas**
- Teams' completed copies of **Handout 11: Our Game World**
- Finished team concept art
- Students' copies of **Handout 4: Unit 6 Project Description**
- Students' copies of **Assessment Checklist: Unit 6 Project**

1. Introduce the activity.
Tell students that they will work with their teams to develop a pitch for their game concept and artwork, and then deliver that pitch to an audience. Distribute note cards to teams.

> **Note:** Let teams know how long they will have for their pitch and whether the audience will include AME professionals, community members, or others.

2. Have teams prepare their pitches.
Have teams use their completed copies of **Handout 9: Game Ideas**, **Handout 11: Our Game World**, and their team's finished artwork to create a pitch to "sell" their game idea.

Tell teams that their pitches should include the following components:

- A description of their game's issue and purpose, and why they chose this issue
- An explanation of their game's concept and elements—basic game play, features, setting, and characters—and how these elements support the game's purpose
- A presentation of each team member's completed artwork and an explanation of the game's visuals
- An explanation of how the game concept and artwork work together to achieve the game's intended purpose
- A strong case for why people will be interested in playing the game

Tell students to decide within their teams who will be responsible for presenting each part of the pitch. Each team member should have a role. Suggest to students that they use completed handouts, written summaries, and/or note cards to refer to during their presentation.

3. Have teams pitch their game concepts.
Have each team pitch its game to the audience, presenting the game's issue and purpose, the game's concept and elements of game play, and the team's finished artwork. Tell students to take notes during the other teams' pitches so that they can offer constructive comments afterward.

After each pitch, give the audience time to ask questions and comment on the game's concept and artwork, including how well they addressed the chosen issue and purpose.

4. Have students participate in a final reflection.
For the final element of their project portfolios, have students write a reflection on the unit project by answering the following questions from Step 10 on **Handout 4: Unit 6 Project Description**:

- What was your favorite part of the video game design process? What did you especially enjoy about it?
- What was the most challenging part of the video game design process? What did you find especially challenging about it?
- What did you learn about your team's chosen issue during this unit?
- What did you learn about using art elements and design principles to create a unified look among different artworks?
- What did you learn about the role that art and media can play in persuading people or teaching them about an issue?
- What did you learn about the role that art and graphics play in creating a successful video game?
- What would you do differently if you were to do this project again?

5. Hold a concluding discussion.
Discuss students' responses to the questions above.

Have students fill out the Student Comments portion of the **Assessment Checklist: Unit 6 Project**. Collect the completed assessments.

Appendix A: Interviewing Techniques

Interviewing is a great way to meet people and to learn information you couldn't learn in another way. You may conduct your interviews in person, over the telephone, or using e-mail. Whichever method you choose, it's important to prepare in advance. Know what you plan to do during the interview and be prepared for any follow-up.

The following techniques, for use before, during, and after the interview, will help you get the most out of the experience.

Preparing for the Interview

- **Contact the interviewee.** Get in touch with the person you'd like to interview. Describe the purpose and length of your interview. Arrange a time to meet in person or to talk on the phone. If you plan to record your interview, ask for permission to do so in advance. If you plan to conduct the interview by e-mail, let the person know your timeframe for sending questions and receiving a response.
- **Conduct research.** Do your homework! Look for information about the interviewee's organization or how he or she is involved with the issue. Background information helps you focus and ask questions you might not have thought of.
- **Think about topics.** Decide what information you want to get out of the interview. Remember, an interview is a chance to get information that you may not be able to find anywhere else. Make a list of the important points.
- **List your questions.** Write a list of questions to ask and ask your teacher or someone else to review them. Ask open-ended questions, rather than ones that can be answered with yes or no. For example, instead of "Do you like your work?" ask, "What parts of your work do you like most?"
- **Order your questions.** Ask your questions in a logical sequence, from basic questions (for example, "Can you tell me about your experiences working with homelessness?") to more specific questions (for example, "What is one instance in which your organization helped a homeless individual or family transition back into housing?").

During the Interview

- **Dress appropriately.** If you're interviewing someone in person, dress for the situation. Always be clean and neat, and avoid clothes with logos, graphics, or sayings. To interview a business person, wear a nice pair of pants or a skirt and a button-down shirt or blouse. If your interviewee is someone in the community, dress neatly but less formally.
- **Arrive (or call) on time.** Don't keep your interviewee waiting. If you are using e-mail, be sure to send the questions on the day you arranged.
- **Have the right gear.** Be prepared with a notebook and a pen or a pencil. If you are using a tape recorder or video camera, learn how all the controls work before you arrive and give yourself a few extra minutes to set up the equipment.

- **Warm up.** Always begin by thanking the person for his or her time. If your interview is in person or on the phone, spend a few minutes to get acquainted before you ask your questions. (For example, you might ask whether the person has been interviewed about his or her experiences before or briefly explain your project.) However, in an e-mail, after thanking the person for his or her time, it's best to get right to the point.
- **Let the interviewee do the talking.** Don't interrupt and be sure to give the person time to answer each question. Use pauses as a chance to take notes, rather than moving straight to the next question. You should also practice active listening—make eye contact and show your interest by nodding your head and making appropriate comments, such as "Uh-huh" and "I see."
- **Take notes.** If you're not recording the interview, take detailed notes on your interviewee's responses, writing down key information. Be sure to note important or interesting phrases that you may want to quote. The notes are for you to remember the interview later; you do not need to use full sentences or write every word. You may want to practice taking notes before your interview.
- **Ask follow-up questions.** If an answer makes you think of another question, go ahead and ask it. Don't be afraid to ask questions to clarify your interviewee's answers or to get more information, such as "Can you give me an example?" or "Does that mean that ____?" For e-mail interviews, you may send a second message with follow-up questions based on the interviewee's responses.
- **Wrap up.** At the end of the interview, thank the interviewee again. Ask if it would be OK to call or e-mail if you have any further questions. Offer to send a copy of your final project–and be sure to follow through!

After the Interview

- **Thank your interviewee.** Send an e-mail or a card thanking the person for the information he or she shared.
- **Review your notes.** As soon as possible after the interview, read your notes and add any information you remember from the interview but didn't write down at the time. (The sooner you do this the better, as your memory of the conversation will help you make sense of your notes.) You may want to type them and organize them. Write any additional questions that you have.
- **If necessary, follow up.** If your interviewee has agreed, ask follow-up questions in a phone call or an e-mail. Thank the interviewee for this additional time.
- **Evaluate the interview.** Reflect on the interview process. What went well? What didn't go well? What will you change the next time you conduct an interview? Write down your reflections in your journal.

Appendix B:
Additional Journal Suggestions

In addition to the journal assignments given in the unit, you may want to assign students journal prompts to help them develop their sketching and other art skills related to game design. Here are some suggestions for additional journal entries:

- Make an observational drawing of an interior or an exterior space that you might use as a model for your game's setting. Try drawing the same space using different styles to create different effects. For example, in one drawing use a style that makes the space seem claustrophobic, and in another drawing make the space seem expansive or open. Try different pairings (calm versus tense, order versus chaos, safety versus fear, etc.).
- Sketch some possible characters for your game in different styles. Try sketching the same character in realistic, cartoon-like, and abstract styles. Extend the activity to using different media to render the same character, such as charcoal drawing, pen and ink, watercolor, and colored pencil.
- Try the same idea as above but with objects from your game instead of characters.

Materials Needed

Throughout the Unit

- Chart paper and markers
- Digital projector or slide projector

Part 1: Art, Media, and Social Issues

Art Supplies and Other Equipment

- Colored pencils
- Posterboard or corkboard for teams' inspiration boards (1 piece per team)
- Glue, tape, or thumbtacks for attaching items to teams' inspiration boards
- Computers with Internet access and printers
- Optional: Camera (if teams need one for research)
- Optional: Tape recorder (if teams need one for research)

Handouts

- **Handout 1: Unit 6 Overview**
- **Handout 2: Game-Play Log**
- Teacher-selected list of appropriate entertainment- and issue-based video games
- **Handout 3: Journal Assignments**
- **Handout 4: Unit 6 Project Description**
- **Assessment Checklist: Unit 6 Project**
- **Handout 5: Sample Concept Document**
- Optional: **Self-Assessment: Teamwork** handout (from an earlier unit, such as Unit 3)
- **Handout 6: Choose an Issue**
- **Handout 7: Research Your Issue**
- **Optional: Appendix A: Interviewing Techniques**
- **Handout 8: Formulate a Purpose**

Examples of Arts, Media, and Entertainment

- Three examples of persuasive art and media that address different social issues (see Advance Preparation)
- Optional: TV documentary clip or one or two children's books that address social issues (see Advance Preparation)
- Video game that explores a social issue (see Advance Preparation)
- Equipment for displaying the video game (see Advance Preparation)
- A reproduction of *Seeds of Peace* or another work of art that depicts an ideal world (see Advance Preparation)
- Optional: Examples of images or quotations for inspiration boards

Advance Preparation

- For Activity 1A.1, choose three examples of persuasive art and media, such as murals, posters, and public service announcements, that address different social issues. (See *Media & Resources* for suggested links.)
- Optional: For other examples to use in Activity 1A.1, locate clips from TV documentary series, such as *Frontline* or *POV* (PBS), or illustrated children's books that address social issues, such as *The Lorax* by Dr. Seuss or *Smoky Night* by Eve Bunting.
- Also for Activity 1A.1, select a video game or games from the list of appropriate games that you created prior to beginning the unit—ideally, one that informs or persuade players about an issue.
- Decide how students will interact with the video game, whether as part of a class demonstration or in pairs at individual gaming stations or with hand-held devices. Gather the necessary equipment.
- Prepare display equipment for video game and art and media examples.
- Before Activity 1A.2, find a reproduction of the mural *Seeds of Peace* or another work of art that shows an ideal world. (See *Media & Resources* for suggestions.)
- Optional: If you have invited a game designer to speak to the class at the beginning of Activity 1B, finalize these arrangements.

Part 2: Developing Game Ideas

Art Supplies and Other Equipment

- Charcoal pencils
- Erasers
- Optional: Other drawing materials, such as colored pencils, pens, rulers, and T-squares
- Sticky notes

Handouts

- **Handout 9: Game Ideas**
- **Handout 10: Analyzing Game Worlds**
- **Handout 11: Our Game World** (1 for each team)
- **Handout 12: Feedback Form for Sketches**

Items Students Need to Bring

- Team inspiration boards
- Optional: Objects to inspire concept art sketches
- Students' copies of **Handout 12: Art Show! Project Description** (from Unit 5)
- Students' copies of **Handout 13: Task List** (from Unit 5)
- Students' copies of Handouts 14–16, and, if you assigned a Money Management team, Handout 17 (all from Unit 5)
- Students' copies of **Handout 18: Exhibition Timeline** (from Unit 5)

Examples of Media Resources

- Six or seven screenshots from video games (see Advance Preparation)

Advance Preparation

- For Activity 2A.2, choose six or seven screenshots from video games that provide examples of detailed and image-rich settings, as well as information about game play. Examples should represent a variety of art styles, from realistic to cartoon-like to abstract. Include some screenshots with onscreen user interfaces, and, ideally, at least one screenshot from a game that addresses a social issue. (See *Media & Resources* for suggestions.)
- Before Activity 2A.2, decide whether to use printouts of screenshots or to display them electronically. Make copies or prepare display equipment, as necessary.
- Optional: In Activity 2B.1, students create concept art sketches that may be inspired by their inspiration boards or by real objects. If you are having students use real objects, ask them to start collecting and bringing them to class.

Part 3: Analyzing Video Games

Art Supplies and Other Equipment

- Video games and equipment for playing or displaying the games (see Advance Preparation)
- Charcoal pencils
- Erasers
- Optional: Additional drawing materials, which may include colored pencils, pens, inks, rulers, and T-squares
- Sticky notes

Handouts

- **Handout 13: Video Game Analysis** (2 copies per team)
- **Handout 14: Video Game Genres**
- Blank copies of **Handout 9: Game Ideas**
- **Handout 15: Select Team Art**
- **Handout 16: Unit 6 Career Information**
-

Items Students Need to Bring

- Students' copies of **Handout 2: Game-Play Log**
- Team inspiration boards
- Teams' copies of **Handout 9: Game Ideas**
- Teams' copies of **Handout 11: Our Game World**
- Teams' copies of **Handout 5: Sample Concept Document**
- Teams' copies of **Handout 13: Video Game Analysis**

- Students' three preliminary concept art sketches
- Students' copies of **Handout 12: Feedback Form for Sketches**
- Optional: Objects students brought to class to inspire their sketches
- Students' copies of **Handout 7: AME Career Research Project** (from Unit 5)

Examples of Media Resources

- Several issue-based and several entertainment-based video games (see Advance Preparation)

Advance Preparation

- Before Activity 3A.2, select entertainment- and issue-based video games from the list of appropriate games that you created before beginning the unit. Try to include a variety of game types.
- Decide how students will interact with these video games, either as part of a class demonstration or in teams at individual gaming stations or with hand-held devices. Gather the necessary equipment.
- Optional: If you have arranged for AME professionals to visit and critique students' work in Activity 3B.2 or talk to students about their careers in Activity 3B.3, finalize these arrangements.

Part 4: Creating Final Art and Making the Pitch

Art Supplies and Other Equipment

- Materials to create student artwork, for example:
  - Paper
  - Colored pencils
  - Canvas
  - Paintbrushes
  - Paints
  - Clay
  - Modeling tools
  - Sculpting boards
- Note cards

Items Students Need to Bring

- Students' detailed sketches
- Team inspiration boards
- Optional: Objects students brought to class to inspire their preliminary sketches
- Teams' completed copies of **Handout 9: Game Ideas**
- Teams' completed copies of **Handout 11: Our Game World**
- Finished team concept art
- Students' copies of **Handout 4: Unit 6 Project Description**
- Students' copies of **Assessment Checklist: Unit 6 Project**

Advance Preparation

- Collect necessary art supplies. Each student has the option of choosing a medium in which to create a drawing, painting, or sculpture based on his or her detailed sketch. The type and amount of art supplies needed depends on the medium each student chooses.
- Optional: Finalize arrangements with AME professionals or invite community members, if you plan to have them attend the pitch session.

Media & Resources

These recommended Web sites have been checked for availability and for advertising and other inappropriate content. However, because Web site policies and content change frequently, we suggest that you preview the sites shortly before using them.

Media & Resources are also available at http://dma.edc.org and at http://dmamediaandresources.pbworks.com, a Wiki that allows users to add and edit content.

Part 1: Art, Media, and Persuasion

Activity 1A.1: Looking at Art and Media as Catalysts for Change

Murals and Billboards that Address Social Issues

500 Anos de Resistencia, mural detail, 1992–93, by Muralist Isaias Mata (El Salvador)
www.flickr.com/photos/under_volcano/362188462/

Diego Rivera
www.fbuch.com/murals.htm

Hope Is Vital! African AIDS Response
www.africaaidsresponse.org/sub-what/gallery.html

Seeds of Peace
www.precitaeyes.org/seedsofpeace.html

Unchain the Women Directors!, 2006. Guerilla Girls, Inc.
www.newenglandfilm.com/images/pages/big-guerilla

Accompanying article:
www.newenglandfilm.com/news/archives/2006/06/guerillagirls.htm

We Sell Guns!, 2008. Stop Handgun Violence
http://abcnews.go.com/Blotter/story?id=5685646&page=1

Posters that Address Social Issues

Art for Social Justice by Ricardo Levins Morales
www.rlmarts.com/

Current Street Art Workers posters
www.streetartworkers.org/

Cycle of Cooperation
www.rlmarts.com/catalog/RLMA/archive/posters/p172.html

Sun Mad, 1982, by Ester Hernández
http://delcorazon.si.edu/galeria_06.cfm

Taller Tupac Amaru posters
www.tallertupacamaru.com/

The Movimiento, 1972, by Sergio Hernandez
www.chicanarteyque.com/Gallery/gallery19.htm

PSAs and Media Campaigns that Address Social Issues

Adobe Youth Voices: Create With Purpose (video gallery)
http://plantandinspire.org/gallery/

The Coen Brothers Do Clean Coal by Tom Zeller Jr. *The New York Times*, Energy and the Environment
http://greeninc.blogs.nytimes.com/2009/02/26/the-coen-brothers-do-clean-coal/

Product Red
www.joinred.com/Home.aspx

Reading Rockets PSAs
www.readingrockets.org/shows/psas

The Red Flag Campaign
www.theredflagcampaign.org/

Rock the Vote
www.rockthevote.com/

The Gun, 2008. Youth producers at Ice Pick Studios
http://listenup.org/screeningroom/index.php?view=64bc5644004b411ccae8f225d1c897a1

Unidentified Black Male: A Look at Racial Profiling in Saint Paul, 2007. Youth producers Kenny Bankhead, Malikah Bonner, and Anders Lee
http://listenup.org/screeningroom/index.php?view=88ce2c799aa77035a9e709b3 b72dda5d#

Art and Media Works Referenced in Handout 1: Unit 6 Overview

AIDS Memorial Quilt, 1987–ongoing. Conceived by Cleve Jones, contributed to by communities worldwide
www.aidsquilt.org/history.htm

Eyes on the Prize, 1987, images, video, and news clippings from the documentary produced by PBS
www.pbs.org/wgbh/amex/eyesontheprize/resources/index.html

Social Design Notes, information about the Silence=Death campaign
www.backspace.com/notes/2003/04/silence-death.php

The Third of May 1808, 1814, by Francisco Goya
http://eeweems.com/goya/3rd_of_may.html

Activity 1A.2: An Ideal World

Artwork that Depicts an Ideal World

Seeds of Peace, 2008. Precitas Eyes Muralists
www.precitaeyes.org/seedsofpeace.html

Bake Sale, 1979. Women's International League for Peace and Freedom
http://syracuseculturalworkers.com/poster-bake-sale

Be the Change You Wish to See in the World, 2007. Precitas Eyes Muralists
www.precitaeyes.org/bethechange.html

Cycle of Cooperation, 2005, by Ricardo Levins Morales
www.ricardolevinsmorales.com/galleries/p172.html

Part 2: Developing Game Ideas

2A.2: Looking at Game Settings

Banjo-Kazooie, 2008, screenshot
http://banjo-kazooie.com/media/screensaver.htm

Darfur Is Dying screenshots (The game is based on a social issue, and some screenshots include onscreen user interfaces)
www.mobygames.com/game/browser/darfur-is-dying/screenshots

Flight simulation screenshots. Screenshot Artist
www.screenshotartist.co.uk/gallery_index.html

Game Daily (video game screenshots)
www.gamedaily.com/game-images/?page=1

Gamespot (Web site about gaming, with many video game reviews that include screenshots—some with onscreen user interfaces)
www.gamespot.com/

Iron Man video game screenshots
www.marvel.com/news/vgstories.1723.Heavy_Metal~colon~_5_Iron_Man_Video_Game_Screens

Screenshot galleries
http://media.xbox360.ign.com/media/015/015334/imgs_1.html or http://banjo-kazooie.com/

UN Food Force images (Includes a link to a file containing screenshots from the game, which is based on a social issue)
www.food-force.com/index.php/press/images/

X-Men: The Official Game screenshots
http://videogames.yahoo.com/thumbgallery?cid=1951257559&tab=thumbgaller y&page=0&eid=-1

Part 3: Analyzing Video Games

Activity 3A.2: Looking at Entertainment- and Issue-Based Video Games

Entertainment-Based Video Games

Gamespot (Web site about gaming; includes many reviews of the latest video games)
www.gamespot.com/

Madden NFL
http://games.easports.com/madden09/

Oasis
www.oasisgame.com/

Passage by Jason Rohrer
http://hcsoftware.sourceforge.net/passage/

PlayFirst (includes games that can be played for free online with free registration)
www.playfirst.com/

Popcap (includes games that can be played for free online)
www.popcap.com/

Spore
www.spore.com/

The Legend of Zelda series
www.zelda.com/universe/

The Sims
http://thesims.ea.com/

World of Warcraft
www.worldofwarcraft.com

Issue-Based Video Games

Ayiti: The Cost of Life. In this game about poverty in Haiti, players help a family make decisions about work, education, community building, personal purchases, and health care in order to make ends meet and improve the family's future.
http://gamelab.com/game/ayiti

Budget Hero, American Public Media, Marketplace (a game about the U.S. government's budget)
http://marketplace.publicradio.org/features/budget_hero/

Darfur Is Dying. In this game, player take on the role of refugees in Darfur and face a number of challenges, such as getting water without being discovered by the janjaweed militia.
www.darfurisdying.com

Enercities (a game about urban development and energy management)
http://apps.facebook.com/enercities

Go Goat Go. This game teaches young children about the importance of goats to the livelihood of a poor village.

www.gamesforchange.org/main/gameprof/649

Our Courts (a game about constitutional rights)

www.ourcourts.org/flashgames/dihar/index.html

The Redistricting Game. In this game, players learn about the challenges of redistricting and its potential for abuse and manipulation. Players undertake a series of missions in which they attempt to redistrict an area, with specific goals (such as gerrymandering or ensuring minority representation) in mind.

www.redistrictinggame.org

Refugee Game for Change. In this game developed by Oxfam, players take on the role of Aissa, a refugee who has to flee conflict in Darfur with her four children. Players help Aissa and her children avoid dangers, such as landmines and guerrillas, and help her find food for her children.

www.oxfam.org.au/refugee/public/resources/mobilephonevirtualcamp.php

UN Food Force. Players take on missions to distribute food in a famine-affected country and to help it recover and become self-sufficient again. (This game requires downloading a very large zip file in order to play it.)

www.food-force.com/index.php/game/

Additional Resources for Teachers

Activity 3B.3: Examining Careers

Interviews with Game Industry Professionals

Ed Bartlett: Lead Game Designer, The Bitmap Brothers
www.igda.org/breakingin/profile_ed_bartlett.htm

Kristine Ishii: Assistant Game Designer, Big Huge Games
www.igda.org/breakingin/profile_kristine_ishii.htm

Patricia A. Pizer: Designer at Large
www.igda.org/breakingin/profile_patricia_pizer.htm

Chacko Sonny: CFO/Project Lead/Creative Director/Co-Founder, Savage Entertainment
www.igda.org/breakingin/profile_chacko_sonny.htm

Web Site with Job Postings

Gamasutra: The Art & Business of Making Games
www.gamasutra.com/jobs/board.php

Resources for Youth Media

Center for Social Media, from *Youth as E-Citizens:* Online Journalism and Media Production (resources)
www.centerforsocialmedia.org/ecitizens/media.htm

Digital Media and Learning Competition, MacArthur Foundation
http://dmlcompetition.net/

Media Rights (resources, such as organizations and projects, for youth and media)
www.mediarights.org/resource/C349

Resources for Video Game Industry Information

The Entertainment Software Association
www.theesa.com/

Gamasutra: The Art & Business of Making Games
www.gamasutra.com/

Serious Games Source
www.seriousgamessource.com/

Related Writing and Curriculum

The Berkman Center for Internet and Society
http://cyber.law.harvard.edu/

PBS African American World: Social activism and civil rights
www.pbs.org/wnet/aaworld/arts/artfocus_05.html

Standards

VPA Visual Arts Content Standards and CTE AME Industry Sector Media, and Design Arts Pathway Content Standards

- Create a two- or three-dimensional work of art that addresses a social issue. [VPA 2.6]
- Articulate how personal beliefs, cultural traditions, and current social, economic, and political contexts influence the interpretation of the meaning or message in a work of art. [VPA 4.1, AME A1.4 (4.1)]
- Compare and contrast similar styles of works of art done in electronic media with those done with materials traditionally used in the visual arts. [VPA 1.6, AME 1.1 (1.6)]

CTE AME Industry Sector Foundation Standards

4.0 Technology

Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments:

4.6 Know how technology and the arts are interrelated in the development of presentations and productions.

5.0 Problem Solving and Critical Thinking

Students understand how to create alternative solutions by using critical and creative thinking skills, such as logical reasoning, analytical thinking, and problem-solving techniques:

5.1 Apply appropriate problem-solving strategies and critical-thinking skills to work-related issues and tasks.
5.4 Use the elements of the particular art form to observe, perceive, and respond.
5.5 Understand the application of research and analysis skills to the creation of content.

7.0 Responsibility and Flexibility

Students know the behaviors associated with the demonstration of responsibility and flexibility in personal, workplace, and community settings:

7.2 Understand the importance of accountability and responsibility in fulfilling personal, community, and workplace roles.
7.3 Understand the need to adapt to varied roles and responsibilities.
7.7 Develop a personal commitment to and apply high-quality craftsmanship to a product or presentation and continually refine and perfect it.

9.0 Leadership and Teamwork

Students understand effective leadership styles, key concepts of group dynamics, team and individual decision making, the benefits of workforce diversity, and conflict resolution:

9.3 Understand how to organize and structure work individually and in teams for effective performance and the attainment of goals.
9.7 Cultivate consensus, continuous improvement, respect for the opinions of others, cooperation, adaptability, and conflict resolution.

10.0 Technical Knowledge and Skills

Students understand the essential knowledge and skills common to all pathways in the Arts, Media, and Entertainment sector:

10.6 Know the appropriate skills and vocabulary of the art form.
10.7 Understand and analyze the elements of the art form.
10.12 Use a variety of strategies (e.g., personal experience, discussion, research) to comprehend, interpret, evaluate, and appreciate source and technical documents and materials.

11.0 Demonstration and Application

Students demonstrate and apply the concepts contained in the foundation and pathway standards.

Bibliography

Adams, E., & Rollings, A. (2003). *On Game Design*. Berkeley, CA: New Riders Publishing.

Adams, E. W. (n.d.). *The High Concept Document*. Retrieved December 4, 2009, from www.csc.kth.se/utbildning/kth/kurser/DH2640/grip08/HighConceptTemplate-Inl4.pdf.

Brathwaite, B., & Schreiber, I. (2009). *Challenges for Game Designers: Non-digital Exercises for Video Game Designers.* Boston: Charles River Media: Course Technology, Cengage Learning.

Breaking In: Design. (2008). Retrieved December 19, 2008, from the International Game Developers Association Web site, www.igda.org/breakingin/path_design.htm#writer.

Game Tester. (2008). Retrieved December 18, 2008, from http://en.wikipedia.org/wiki/Game_tester.

Milnes, K., & Lee, K. (2006). *Multimedia Occupations: The Convergence of Art and Technology in the Age of New Media.* Los Angeles: Entertainment Economy Institute.

Skillset Careers: Job Profiles. (2007–2008). Retrieved December 18, 2008, from www.skillset.org/careers/jobs/job_profiles/.

Stahl, T. (2005). *Video Game Genres.* Retrieved December 11, 2009, from www.thocp.net/software/games/reference/genres.htm.

Taylor, T. A., & Parish, J. R. (2007). *Career Opportunities in the Internet, Video Games, and Multimedia.* New York: Checkmark Books.