

# Introduction to Video Game Design

**Media Type:** Microsoft® PowerPoint® Presentation

**Duration:** 89 slides

**Goal:** To discuss the process and components involved in video game design, including hardware, operating systems, software and the design process.

**Description:** This production explores the video game design industry, its history and technological progression and its impact on society. It also provides detailed information on the design and production process. Hardware, operating systems and software commonly used in video game design are also discussed.

## Objectives:

1. To provide an overview of the scope and evolution of the video game design industry.
2. To discuss equipment and techniques used in video game design.
3. To describe video game operating systems and software.
4. To learn about the video game design process.



Arts, A/V Technology & Communications Career Cluster (AR)

Cluster	Standard
	Analyze the interdependence of the technical and artistic elements of various careers within the Arts, A/V Technology & Communications Career Cluster™.
	Analyze the legal and ethical responsibilities required in the arts, audio/visual technology and communications workplace.
	Evaluate technological advancements and tools that are essential to occupations within the Arts, A/V Technology & Communications Career Cluster™.
A/V Technology & Film Career Pathway (AR-AV)	Describe the history, terminology, occupations and value of audio, video and film technology.
	Demonstrate the use of basic tools and equipment used in audio, video and film production.
	Design an audio, video and/or film production.

College & Career Readiness Anchor Standards for Writing

Writing Standards		
Text Types & Purposes	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	
	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	
	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	
	9-12.1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
	9-12.2	Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
9-12.3	Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.	

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Writing Standards	
Production & Distribution of Writing	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
	Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
	<b>9-12.4</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
	<b>9-12.5</b> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
	<b>9-10.6</b> Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
<b>11-12.6</b> Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.	
Research to Build & Present Knowledge	Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
	<b>9-10.8</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
	<b>11-12.8</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
	<b>11-12.9</b> Draw evidence from literary or informational texts to support analysis, reflection, and research.

## College & Career Readiness Anchor Standards for Speaking and Listening

Speaking & Listening Standards	
Comprehension & Collaboration	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.
	<b>9-12.1</b> Initiate and participate effectively in a range of collaborative discussions with diverse partners on grades 9–10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
	<b>9-10.2</b> Integrate multiple sources of information presented in diverse media or formats evaluating the credibility and accuracy of each source.
	<b>9-10.3</b> Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.
	<b>11-12.2</b> Integrate multiple sources of information presented in diverse formats and media in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.
<b>11-12.3</b> Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.	

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## Common Core Standards

### Speaking & Listening Standards

<b>Presentation of Knowledge &amp; Ideas</b>	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	
	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.	
	<b>9-10.4</b>	Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.
	<b>9-12.5</b>	Make strategic use of digital media in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
	<b>11-12.4</b>	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

# Introduction to Video Game Design

## Lesson Plan

Student and Teacher Notes are available to print in outline format. You can access these documents under the “Printable Resources” section. If student licenses have been purchased, an interactive version of the Student Notes is available in the “Interactive Activities” section. If printing the full PowerPoint® is desired, you may download the file and print the handouts as needed.

 **Slides 1-17**  
**Class 1:** Begin class by distributing the *Introduction to Video Game Design Vocabulary Handout*. Show slides 1 to 17 of the *Introduction to Video Game Design - The Industry* segment. Introduce the *Impact of Video Game Design Activity* and allow groups to begin working.

 **Slides 18-24**  
**Class 2:** Show slides 18 to 24 of the *Introduction to Video Game Design - The Industry* segment. Students should complete the corresponding *Assessment*. Allow the remainder of the class for groups to work on the *Activity*.

 **Slides 25-35**  
**Class 3:** Show slides 25 to 35 of the *Introduction to Video Game Design - Hardware* segment. Allow the remainder of the class for groups to work on their *Activity*.

 **Slides 36-42**  
**Class 4:** Show slides 36 to 42 of the *Introduction to Video Game Design - Hardware* segment. Students should complete the corresponding *Assessment*. Distribute the *Hardware Pros & Cons Activity* and allow the remainder of the class for students to work.

 **Slides 43-58**  
**Class 5:** Show slides 43 to 58 of the *Introduction to Video Game Design - Operating Systems & Software* segment. Allow the remainder of the class for students to work on their *Activities*.

 **Slides 59-62**  
**Class 6:** Show slides 59 to 62 of the *Introduction to Video Game Design - Operating Systems & Software* segment. Students should complete the corresponding *Assessment*. Assign the *Game*

*Development Software Activity* and allow the remainder of the class for students to work.

 **Slides 63-78**  
**Class 7:** Show slides 63 to 78 of the *Introduction to Video Game Design - Design & Production Process* segment. Hand out the *Game Design & Production Project* and allow students to begin working.

 **Slides 79-89**  
**Class 8:** Show slides 79 to 89 of the *Introduction to Video Game Design - Design & Production Process* segment. Students should complete the corresponding *Assessment*. Allow the remainder of the class for students to work on their *Projects*.

**Class 9:** Distribute the *Introduction to Video Game Design Final Assessment* and allow time for students to complete it. Lead the class discussion so students can share their findings from the *Impact of Video Game Design Activity*. Allow any remaining time for students to work on their *Project/Activities*.

**Class 10:** Lead the class discussion so students can share their findings from the *Activities* with the class. Allow the remainder of the class for students to work on their *Projects*.

**Class 11:** Students should use the entire class to finish and turn in their *Projects*.

## Lesson Links

### Video Game Design and Development

- [www.apa.org/gradpsych/2012/01/hot-careers.aspx](http://www.apa.org/gradpsych/2012/01/hot-careers.aspx)
- **GAMEDESIGNING**
- [www.gamedesigning.org](http://www.gamedesigning.org)

## Career & Technical Student Organizations

### Skills USA

- 3-D Visualization and Animation
- **Technology Student Association**
- Video Game Design

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## Career Connections

Using the *Career Connections Activity*, allow students to explore the various careers associated with this lesson. See the *Activity* for more details. *If student licenses have been purchased:* Students will select the interviews to watch based on your directions. *If only a teacher license is purchased:* Show students all the career interviews and instruct them to only complete the interview form for the required number of interviews.

- iCEV50524, Jerry Sensabaugh, Vice President of Operations, Big Bad Wolf Creative Group
- iCEV50523, Chuck Johnson, President, Big Bad Wolf Creative Group
- iCEV50193, Trenton Gary, Audio/Video Engineer, Motion Picture Enterprises



## Lab Activities

### Impact of Video Game Design

#### Directions:

Divide the class into two groups and assign one group the positive aspects of the video game industry and the other the negative aspects. Using the Internet, library or any other available resources, groups should research how the video game design industry affects culture, communication, expression, emotion, etc. based on the aspect assigned. Groups should perform broad research about the historical impact of the video game design industry, including technological progression. Considering the research, groups should develop an argument regarding specific societal and cultural aspects which either hinders or advance the industry (according to which group they are in) and create a specific example for the argument, then perform further research which specifically relates to the argument selected and create a more detailed argument in order to explain and assert the research. Groups should find at least three sources. Once each group has made their initial argument, students should be prepared to respond to questions and counterarguments from the opposing group. As a class discuss the outlook of the industry.

### Hardware Pros & Cons

#### Directions:

Using the Internet, library or any other available resources, students should research the various types of video game hardware (home systems, handheld devices, tablets and smartphones, personal computers). Using their research, students should determine at least three pros and three cons for each. Include information on file formats, electronic file sharing, compatibility, etc.. Once students have gathered all information, they should develop a table detailing their findings and provide a short explanation on why they think their choices are either pros or cons. Remind students to attach a citation sheet listing all sources used to the table. Lead a class discussion so students can share their findings with the class.

### Game Development Software

#### Directions:

Students will research what should be included in a game development software program and decide what a designer should consider and want in a software program. Students should seek out at least three free game development software programs and three paid game development software programs, making notes of the benefits and detriments of each. After researching the different software programs, students should choose a software in which they think is the best and would consider using if creating a game. Students should be prepared to share their choices with the class, listing the benefits as well as why they chose the specific game development software program.



## Projects

### Game Design & Production

#### Directions:

For this *Project* students will be designing a video game of their choice. Remind students to include as many details as possible in each step. Step 1: decide on a game concepts; step 2: create the game design document; step 3: determine the post production steps. See the *Project* sheet for more detailed instructions.