

Content Standard: Gaming Appreciation

Standard 1: The student values gaming for health, enjoyment, challenge, self-expression, and/or social interaction.

Benchmark 1: The student will appreciate and actively pursue lifetime gaming options that meet his/her own needs.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student:</p> <ul style="list-style-type: none">a. displays persistence in learning new games.b. differentiates between intrinsic and extrinsic reasons for participating in gaming activities.c. integrates gaming meaningfully into daily life.d. reflects on reasons for choosing to participate in selected games.	<p>The teacher:</p> <ul style="list-style-type: none">a. provides expanded opportunities for student participation in a variety of gaming activities.b. asks students to reflect on reasons for gaming participation.c. asks the students to create a project that analyzes the integration of how they incorporate gaming in daily life.d. provides the opportunity for students to identify and discuss reasons for playing video games.
Teacher Notes:	

Content Standard: Motor Skills

Standard 2: The student demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

Benchmark 1: The student will demonstrate and apply mature motor skills, manipulation of objects and rhythmic concepts during modified, individual, or team activities.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student will:</p> <ul style="list-style-type: none">a. use a variety of skills appropriately within a game situation.b. select and use the appropriate offensive and defensive skills in a variety of individual, dual, and team activities.c. demonstrate the ability to safely and comfortably adapt to environmental conditions in a variety of gaming pursuits.	<p>The teacher will:</p> <ul style="list-style-type: none">a. provides expanded opportunities for advanced movement patterns (mouse sensitivity, keybindings, screen brightness, etc).b. provides various games to display the students' physical skills.c. offensive and defensive movement patterns as well as team strategies.
Teacher Notes:	

Content Standard: Learning Concepts

Standard 3: The student demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of specific games.

Benchmark 1: The student will demonstrate and refine movement concepts, principles, strategies, and tactics as they apply to specific games.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student will:</p> <ul style="list-style-type: none">a. develop an appropriate strategy for a self-selected game and activity for lifetime engagement.b. explain appropriate tactical decisions in a game situation.	<p>The teacher will:</p> <ul style="list-style-type: none">a. ask students to design a two-week training plan that incorporates a variety of activities such as goal setting, practice schedule, and evaluation.b. asks the students to apply, analyze, and evaluate the game strategies used in a performance.
Teacher Notes:	

Content Standard: Health Promotion and Preventative Care for Gamers

Standard 4: The student will comprehend concepts related to health promotion and preventative care in gamers as related to the following content areas (the content areas are not listed in any particular order):

- nutrition
- injury prevention and safety
- personal health
- mental and emotional health
- substance use, misuse, abuse and addiction

Benchmark 1: The student will demonstrate knowledge of the causes and consequences related to health promotion and preventative care in gamers.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student will:</p> <ul style="list-style-type: none">a. analyze how behavior can impact health promotion and preventative care in gamers.b. describe the importance of the interrelationships of mental, emotional, social, and physical health through gaming.c. demonstrate knowledge of how their family, peers, and community influence the health of a gamer.d. identify common risks in gaming and demonstrate knowledge of the importance and benefits of risk-reducing strategies for gamers (ergonomics, sleep deprivation, eye strain, etc.).e. analyze how public policies, eSports governing bodies, and stakeholder communities impact the health promotion and preventative care in gamers.	<p>The teacher will:</p> <ul style="list-style-type: none">a. have students conduct an internet search on the pros and cons of gaming as related to adolescent health. Students should analyze findings and present conclusions.b. assign students to conduct surveys identifying gaming habits of adolescents. After analyzing data, have students identify risks and risk-reducing strategies to address any issues.c. assign students to conduct surveys identifying gaming habits of adolescents. After analyzing data, have students identify positive behavior and establish strategies to promote positive behavior.
Teacher Notes:	

Content Standard: Access Health Information, Products, and Services

Standard 5: The student will demonstrate the ability to access valid health information and health-promoting products and services.

Benchmark 1: The student will be able to identify health issues in gamers and access reliable care for gamers.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student will:</p> <ul style="list-style-type: none">a. identify and analyze situations in the online gaming community requiring professional health services.b. locate health products, services and information that are valid, reliable and effective for gamers.	<p>The teacher will:</p> <ul style="list-style-type: none">a. present scenarios (back pain, tendonitis, addiction, abuse, threatened suicide) requiring students to discern the need for health services and appropriate community referralb. assign the class to research and compile a directory of school and community health services specially designed to serve gamers and eSports participants.
Teacher Notes:	

Content Standard: Self-Management

Standard 6: The student will demonstrate the ability to maintain health-enhancing behaviors and reduce health risks.

Benchmark 1: The student will demonstrate the ability to self-evaluate personal health and set specific goals to practice health-enhancing behaviors that reduce health risks.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student will:</p> <ul style="list-style-type: none">a. identify and practice strategies to manage stress.b. analyze short-term and long-term consequences of safe, risky, and harmful behaviors and recognize his/her responsibility for self-management.c. maintain appropriate levels of cardiorespiratory endurance, muscular strength, flexibility, and body composition necessary for active participation in eSports activities.d. explain the impact of participation in eSports on various components of fitness.	<p>The teacher will:</p> <ul style="list-style-type: none">a. provide the opportunity for students to create daily physical activity logsb. have students complete a stress inventory and identify their personal stressors.c. lead students through breathing, muscle relaxation, and imagery management techniques.
Teacher Notes:	

Content Standard: Interpersonal Communication (Personal and Social Behavior)

Standard 7: The student will demonstrate the ability to use interpersonal communication skills that respects self and others in online gaming settings.

Benchmark 1: The student will demonstrate refusal, negotiation, collaboration, mediation, and conflict resolution skills to avoid potentially incendiary situations.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student will:</p> <ul style="list-style-type: none">a. participate successfully in a cooperative learning group in a variety of online gaming settings.b. invite less-skilled players to participate in gaming environment.c. encourage others to apply appropriate etiquette in all online gaming settings.d. provide appropriate support for a teammate in a team activity.e. demonstrate empathy skills and appropriately respond to both success and disappointment.	<p>The teacher will:</p> <ul style="list-style-type: none">a. provide a variety of team-building activities that promote interaction between team members.b. have students create an eSports “Code of Conduct”c. provide an environment that encourages peer interaction between various skill levels.d. provide the opportunity for students to act appropriately in a school or public setting such as a tournament or convention.e. assign an effective communication activity and have the students role play active-listening skills.f. teach the six steps of peer mediation:<ul style="list-style-type: none">1. agree to mediate2. gather points of view3. focus on interests4. create win-win points5. evaluate options6. create an agreement
<p>Teacher Notes:</p>	

Content Standard: Influence of Culture, Media, and Technology

Standard 8: The student will analyze the reciprocal influence of eSports, culture, media, technology, and other factors.

Benchmark 1: The student will explore the history of eSports and identify key influencers, stakeholders, and opportunities.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student will:</p> <ul style="list-style-type: none">a. research key historical events in the eSports timeline.b. explore career opportunities in eSports, gaming, and related fields.c. identify key influencers and stakeholders shaping the genre.d. analyze how American culture has reacted and is reacting to gaming. Compare this to cultures around the world.e. describe how gaming technology has influenced culture.f. analyze the relationship between eSports and the media.g. study the demographics of eSports. Synthesize what the data shows.	<p>The teacher will:</p> <ul style="list-style-type: none">a. provide opportunities for students to engage with eSports professionals.b. assign students to conduct intergenerational interviews gathering perspectives on video games.c. provide resources explaining the demographic and socio-economic impact of eSports and how this drives media attention.
Teacher Notes:	

Content Standard: Goal-Setting and Decision-Making Skills

Standard 9: The student will demonstrate the ability to use goal-setting and decision-making skills to enhance gaming success.

Benchmark 1: The student will demonstrate the ability to create short-term and long-term goals and the ability to predict the immediate and long-term impact of these goals on the individual, team, and community.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student will:</p> <ul style="list-style-type: none">a. demonstrate the ability to utilize various strategies when making decisions related to gaming scenarios as well as personal experiences.b. create a list of short-term and long-term goals as related to gaming and personal experiences.c. demonstrate complex decision-making skills by developing an action plan to obtain goals.	<p>The teacher will:</p> <ul style="list-style-type: none">a. review various decision-making models. Give students the opportunity to utilize each model through a gaming scenario so that students may determine which strategies are most conducive to certain situations.b. teach short- and long-term goal writing.
Teacher Notes:	

Content Standard: Active Participation

Standard 10: The student participates regularly in gaming activities.

Benchmark 1: The student will participate in appropriate levels of gaming practice on a regular basis as determined by goals and lifestyle decisions.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student will:</p> <ul style="list-style-type: none">a. willingly participate in a variety of activities appropriate for maintaining or enhancing gaming skills.b. accumulate, on most days, a recommended number of minutes of gaming practice outside of class as determined by goals and lifestyle decisions.c. monitor gaming activity through the use of a gaming log or other appropriate technology.d. understand the ways in which personal characteristics, personal styles, and activity preferences will change over a lifespan.	<p>The teacher will:</p> <ul style="list-style-type: none">a. provide activities that allow the student to participate in appropriate gaming activities 60 minutes per day, 3-5 times per week.b. provide a gaming calendar for student documentation of practice for 60 minutes per day, 3-5 times per week.c. assist the student in exploring how gaming habits and preferences change over a lifespan including risk of burnout.
<p>Teacher Notes:</p>	

Content Standard: Advocating for eSports

Standard 11: The student will demonstrate the ability to advocate for scholastic acceptance of eSports.

Benchmark 1: The student will demonstrate the ability to work cooperatively to effectively communicate accurate information and ideas.

Specific Level Knowledge Base Indicators	Instructional Examples
<p>The student will:</p> <ul style="list-style-type: none">a. within a group, devise and implement a strategic plan to influence and support the acceptance of eSports into the scholastic environment.b. independently devise and implement a strategic plan to influence and support the acceptance of eSports into the scholastic environment.c. agree to be a mentor and provide expertise to students and staff when it is warranted.	<p>The teacher will:</p> <ul style="list-style-type: none">a. have students create and present a public service announcement.b. teach effective persuasive communication methods.c. encourage students to plan and implement a tournament opportunity for local eSports teamsd. demonstrate positive ways to offer counseling and advice to assist students in becoming more proficient in gaming curriculum.
Teacher Notes:	

Content Standard	Article Summary	APA Citation (click on the author's name for link to PDF)
1. Gaming Appreciation	This paper reviews 48 studies to quantify the most commonly cited reasons for playing games. Results suggest that people play games not only for enjoyment, but also because they seem to provide useful skills beyond the game.	Hamari, J., & Keronen, L. (2017) . Why do people play games? A meta-analysis. <i>International Journal of Information Management</i> , 37, 125-141.
	Suggests that teams that are more efficient and effective in sharing the cognitive load of a game (i.e., Transactive Memory System) are more likely to win a game in League of Legends. This can be done by learning each other's expertise and coordinating actions based on that expertise (e.g., Amele has good timing and should last hit minions to gain gold, whereas Jane is good at defending her team and should play a support). Being acquainted with team members, feelings that team members are in the same game and sharing the experience (i.e., co-presence), and being able to clearly communication of gameplay intentions between team members (i.e., perceived comprehension) were related to an effective Transactive Memory System.	Kahn, A. S., & Williams, D. (2016) . We're all in this (game) together: Transactive memory systems, social presence, and team structure in multiplayer online battle arenas. <i>Communication Research</i> , 43(4), 487-517.
	A validated survey that can be used to assess a player's satisfaction with a game across multiple areas, including Usability/Playability, Narratives, Play Engrossment, Enjoyment, Creative Freedom, Audio Aesthetics, Personal Gratification, Social Connectivity, and Visual Aesthetics.	Phan, M. H., Keebler, J. R., & Chaparro, B. S. (2016) . The development and validation of the game user experience satisfaction scale (GUESS). <i>Human Factors</i> , 58(8), 1217-1247.
	Different players have different motivations. This is a survey that assesses player motivations, which include the Socializer, Completionist, Competitor, Escapist, Story-driven, and Smart-pants.	Kahn, et al. (2015) .

<p>2. Motor Skills</p>	<p>Students who had no prior video game experience took the Space Relations Test on the DAT to quantify spatial performance, showing no differences between groups. One group played the video game Zaxxon (experimental) for 6 weeks and the other played Tetris (control). After these 6 weeks, both groups were tested again and the experimental group received higher scores on the SRT.</p>	<p>Dorval, M. & Ppin, M.(1986). Effect of playing a video game on a measure of spatial visualization. <i>Perceptual Motor Skills</i> 62, 159-162. doi: 10.2466/pms.1986.62.1.159</p>
	<p>This is a significant amount of research on this topic gathered into one paper. There are citations on the positive effects of playing video games on spatial ability, motor skills, visual attention, and various other abilities throughout this publication, namely pages 5-11.</p>	<p>De Aguilera, M. & Mendiz, A. (2003). Video Games and Education (Education in the Face of a “Parallel School”). <i>Computers in Entertainment (CIE) - Theoretical and Practical Computer Applications in Entertainment</i>. 1(1), 1-14. doi: 10.1145/950566.950583</p>

<p>3. Learning Concepts</p>	<p>See content standard 9’s citations. To improve performance into a mastery level in specific game you will need deliberate practice</p>	
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<p>4. Health Promotion and Preventative Care for Gamers</p>	<p>This study shows that sleeping can help improve performance in a motor sequence task. One group that was retested the same day did not show significant improvement. Another group who got a full night of sleep, improve in a 20% increase in speed. This shows that sleep is important to improve on motor tasks.</p>	<p>Stickgold, R. (2005). Sleep-dependent memory consolidation. <i>Nature</i>, 437(7063), 1272-1278.</p>
	<p>This study shows that there are reduced amounts of pain in the shoulders, neck, upper back and lower back when an ergonomic chair was introduced in an office place.</p>	<p>Amick III, B. C., Robertson, M. M., DeRango, K., Bazzani, L., Moore, A., Rooney, T., & Harrist, R. (2003). Effect of office ergonomics intervention on reducing musculoskeletal symptoms. <i>Spine</i>, 28(24), 2706-2711.</p>

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<p>5. Access Health Information, Products, and Services</p>	<p>Hand, wrist, and forearm stretches for gamers:</p>	<p>https://www.youtube.com/watch?v=B9OCxQgmfL0</p>
<p>6. Self-Management</p>	<p>Because eSports are not always taken seriously, there is a lack of regulation in terms of the mental and physical health of players. It's important to accept eSports as a viable field and introduce the same health standards that we have for other sports and professions.</p>	<p>Hollist, K. E. (2015). Time to be grown-ups about video gaming: the rising eSports industry and the need for regulation. <i>Ariz. L. Rev.</i>, 57, 823.</p>
<p>7. Interpersonal Communication</p>	<p>Online gaming can be used as a leadership-building tool. Today's companies face the problem of distributed teams (i.e., not everyone on the same team may work in the same building, or even the same country) and leadership in this scenario is difficult. Online gaming may be a way to develop this skill.</p>	<p>Lisk, T. C., Kaplanali, U. T., & Riggio, R. E. (2012). Leadership in multiplayer online gaming environments. <i>Simulation & Gaming</i>, 43(1), 133-149.</p>
	<p>Games may help foster team communication and leadership communication skills in people who have little experience in leadership. Putting someone with little leadership experience as a leader in a game may help improve those communication skills.</p>	<p>Javed, Y., Norris, T., & Johnston, D. (2011, May). Ontology-based inference to enhance team situation awareness in emergency management. In <i>Proceedings of the 8th International ISCRAM Conference (1-9)</i>.</p>
	<p>Warning players about how their language affects other (e.g., "Teammates perform worse if you harass them after a mistake) can decrease toxic behavior in games. It's important to tell gamers how their words can affect both the outcome of their game and others' attitudes.</p>	<p>Maher (2016) Good Gaming: scientists are helping to tame toxic behavior in the world's most popular online game.</p>

<p>8. Influence of Culture, Media, and Technology</p>	<p>Citations were not available at the time of this publication. As further research develops we believe that we will be able to add more information to this section.</p>	
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<p>9. Goal-Setting and Decision-Making Skills</p>	<p>A great discussion on deliberate practice and how it is beneficial to performance rather than repetition. This article summarizes the goals of deliberate practice well.</p>	<p>Baker, J., & Young, B. (2014). 20 years later: deliberate practice and the development of expertise in sport. <i>International Review of Sport and Exercise Psychology</i>, 7(1), 135-157.</p>
	<p>This article is great at summarizing goal setting and the benefits with setting harder goals to obtain on performance.</p>	<p>Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. <i>American psychologist</i>, 57(9), 705.</p>
	<p>This article shows how decisions are made in a game. The game used here is chess but they are looking at chess players generated options by their rank in a chess tournament. Chess players that are experts by their performance in a higher division generate better options than chess players who are not as skilled. These options can be considered decisions. The link between expertise, and better decision making is highly related. By engaging in deliberate practice you will be studying the different strategies that a player uses and the different strategies that experts use when playing. This will then increase performance.</p>	<p>Klein, G., Wolf, S., Militello, L., & Zsombok, C. (1995). Characteristics of skilled option generation in chess. <i>Organizational behavior and human decision processes</i>, 62(1), 63-69.</p>

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<p>10. Active</p>	<p>See Standard 9 citations.</p>	
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Participation		
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11. Advocating for eSports	eSports continues to rise in popularity and offers a tool for science and academic resources. We should not disregard eSports as unimportant just because they involve video games - they are an opportunity to study topics like strategic decision making and management training.	Wagner, M. G. (2006, June). On the Scientific Relevance of eSports. In <i>International Conference on Internet Computing</i> (pp. 437-442).
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