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Educator Guide

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1. INTRODUCTION

1.1 Making the Most of Digital Compass[™]

Welcome!

Digital Compass is an innovative way to give students age 11-14 the freedom to explore how decisions made in their digital lives can affect them. Through the popular choose-your-own-path format, students play through the perspective of one of eight characters, each of whom is facing a different digital citizenship dilemma. The varied story paths and multiple decision points encourage students to play repeatedly in order to explore alternative courses of action.

This guide provides an overview of Digital Compass, a summary of each interactive story and mini-game, and recommendations on aligned digital citizenship lessons.

1.2 The Digital Compass Experience

Students will have the opportunity to play through **eight thematic storylines**. If completed in its entirety, each storyline takes 45 minutes. However, students can complete fewer paths in a storyline without affecting gameplay. We recommend previewing Digital Compass to familiarize yourself with the games. The following chart illustrates the structure of a Digital Compass storyline.

Interactive Story	Mini-game
Each story is aligned to one of our six digital citizenship topics . Each story has:	At the end of the first path of each story, students are met with a skills-based mini-game. Each game has randomized content for repeated play. The players' game scores and times are recorded on scorecards. After students play through the game once, it is "unlocked," and they have the option to replay each time they hit an ending. Students can "X" out of a game at any time, but incomplete scoring will not be captured on the scorecard.
9 endings23 decision points	
 32 paths 50 possible combinations	
These positive and not-so-positive twists and turns emphasize the wide range of choices and consequences in a student's daily digital life.	
Scorecards indicate a percentage of the number of paths a user has completed.	



1.3 Technical Requirements

Technical requirements:

- Games are designed for web browsers on desktop or laptop computers (macOS, Windows, Linux, Chrome OS).
- Works on the following internet browsers (minimum versions): Mozilla Firefox 67, Google Chrome 75, Apple Safari 12.1, or MS Edge 18.
- The game does not require any passwords. The information is stored on the local device, and students can retrieve their game information with their username.
- Sound card, speakers (individual headphones are recommended).
- Scorecards can be printed via a printer.
- Check with your school/district about firewalls. You may need to clear the URL: www.digitalcompass.org.

Note: Digital Compass is not available as a mobile app. For the best experience, we recommend students use Digital Compass on a laptop or desktop computer.

2. IMPLEMENTING DIGITAL COMPASS

Digital Compass is designed to work as an inquiry-based game where students are free to take risks and explore the implications of the decisions they make. The choose-your-own-path format engages students with digital dilemmas that are representative of their everyday encounters with digital technologies. By playing through realistic and relevant scenarios, students are given the opportunity to practice responsible decision-making and reflect on what it means to be a good digital citizen.

See section 2.3 [Curricular Connections] for more details on each storyline.

2.1 Learning Objectives

Students will be able to:

- Identify the validity of information online.
- Navigate online media safely.
- Evaluate the benefits and challenges of having a digital life.
- Assess the benefits or consequences of making different decisions to address a digital dilemma.
- Reflect on decisions and determine alternative choices.
- Build interpersonal empathy by role-playing and taking the perspective of others.
- Develop skill-based competencies through game-based learning.
- Apply learnings to real-world situations.



2.2 Assessment

As students work through a module, a scorecard records their progress. Each scorecard has two types of scores:

- Progress score: The percentage is based on the number of paths completed (X/32).
- Game score: For each mini-game, students receive three scores and time recordings: the initial score, their most recent score, and their highest score.
 - For scoring, correct answers earn 500 points. Incorrect answers subtract 100 points.

The scorecards display bronze, silver, and gold badges for both a student's progress on the story as well as their mini-game scores. Students can "save" their individual scorecards or their master scorecard, which summarizes all games played, by printing it in the web version or taking a screenshot.

2.3 Curricular Connections

Although students can complete the games in any order, we recommend the below sequence for Digital Compass. If time permits, we recommend implementing Digital Compass in conjunction with the following Common Sense Education digital citizenships lessons. For instance, the game can be completed prior to the lesson or as homework after the lesson.

Digital Compass Storyline	Description	Digital Citizenship Topic and Lesson Recommendations
Far-Fetched Facts	Jay has been assigned a multimedia assignment on an endangered insect. He has two weeks, but with his busy schedule, he's tight on time. Two days in, he sits down and begins an initial search online for credible resources. Does he rock and roll on the assignment or karaoke his way through it? Mini-game goal : Help Jay practice finding credible news by flagging the questionable news article snippets.	News & Media Literacy Sixth grade: Finding Credible News
Insta-Slammed	Even though she's one of the most popular girls at school, Pepper still has a lot to learn when it comes to being a good friend. Caught up in the newest app craze of Cute or Brute, Pepper is forced to take a hard look at her own not-so-cute behavior. How can you help Pepper take a good look in the mirror? Mini-game goal : Help Pepper sort her messages. Swipe the messages into one of two buckets: positive or negative.	Cyberbullying, Digital Drama & Hate Speech Sixth grade: Digital Drama Unplugged
Kung Fu Fibber	Hutch is determined to master all things sports- related, but he has yet to learn how to master his own self-image online. Caught up in the glory of it all, Hutch comes face-to-face with his toughest competitor—the truth—both online and offline. How can you encourage Hutch to give 110% on and off the field? Mini-game goal : Help Hutch work on his chops. Decide which messages are OK to post and when he should <i>pause</i> to think twice.	Digital Footprint & Identity Sixth grade: Who Are You Online?

Digital Heartbreak	Known for keeping a low profile, Rhonda is on a roller coaster of digital drama when her friend gets swept up in a new romance. Some say, "All is fair in love and war," but what should she do when the two collide and drama blooms? How can you help Rhonda deal with the ups and downs of digital life? Mini-game goal : Help Rhonda become an upstander. Decide whether the statements are true or false to move Rhonda forward and get her home.	Cyberbullying, Digital Drama & Hate Speech Seventh grade: Upstanders and Allies
Hack-a-Wrong	For this year's hack-a-thon, Seven is determined to make his mark with a winning invention. But how can he truly own his creative process when he finds "inspiration," as well as distractions, at every turn? Can you help him keep his eye on the prize? Mini-game goal : For each category—copyright, trademark, and patent—drag three matching items into the vortex and toss out the rest.	News & Media Literacy Seventh grade: The Four Factors of Fair Use
Me, Me, Meme	Determined to land the internship of her dreams, Wink goes head-to-head with her best friend to win the attention of her dream employer, but at what cost? She soon finds that fighting for the spotlight may tarnish her digital footprint. How can you convince Wink to shine without crossing the line? Mini-game goal : Help Wink work on her profile. Choose what to post and what to delete.	Digital Footprint & Identity Seventh grade: The Power of Digital Footprints
Break It Down	Tempted by the glitz and glam of those Hollywood lights, Breaker gets caught up in promoting his popular dance moves. Yet his digital footprint threatens to spin out of control as he searches for the public spotlight. Can you help Breaker manage his journey to insta-fame? Mini-game goal : Help Breaker follow the rules of the road by determining which course of action he should take with each prompt. Should he go for it and post; pause and think about it; or stop and take no action?	Digital Footprint & Identity Eighth grade: Social Media and Digital Footprints
Sticky Situation	Miko finds herself in a sticky situation after signing up for the newest app that everyone is obsessed with. Out of the skate park, she experiences twists and turns as she stumbles over how to protect her privacy. How can you help her protect her online identity? Mini-game goal : Guide Miko to skate to the left or right to choose the stronger password choice.	Privacy & Security Eighth grade: Being Aware of What You Share

2.4 Accessibility Features

The following accessibility features are now available in English and Spanish.

- Keyboard-only controls
- Mouse- or touch-only controls
- Screen reader emulation
- High-legibility font option
- Visual contrast edits

These features can be accessed from the gear icon in the lower-left corner of the "Anywhere" home screen.

3. GETTING STARTED

3.1 Creating an Account

Students can start a new game or resume a prior game. Students can simply create a username to get started. Usernames should be all one word and 12 characters or less. There are no passwords needed. Digital Compass does not collect personal information. Players can enter a short username to begin and continue play, but this is stored locally and not collected by or accessible to Common Sense. If you would like to learn more about our privacy policy, visit **www.digitalcompass.org/privacy.html**.

3.2 Gameplay

- Go to www.digitalcompass.org. Click the "Play now!" button at the bottom of the page. You will be asked to create a generic username so you can save your gameplay for subsequent play on the local device. After the introduction to the characters and the town of Anywhere, click on a character in one of the letters to begin a storyline.
- 2. Next, a title screen will introduce you to the character's dilemma. Click "start story" at the bottom of the page to begin. Play through by choosing one of the two yellow decisions at the end of each scene until you reach one of the nine endings.
- **3.** When you reach the first ending of a character's story, click "play game" to jump into the mini-game. The mini-game is now unlocked, and you can replay it each time you reach an ending, or you can jump back in to try other storylines and make different decisions to change your fate.





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- 4. Within the stories, you can click "skip" to bypass the scenes you have already watched and jump to the next decision point. At any time, you can also pause (") the story. You can also see where you have gone, where you are, and where else you can explore by clicking the progress map. To exit a story or choose a new character's story, click the home icon in the upper right-hand corner.
- **5.** At the top of the screen, you can click the rightmost icon on the center panel to access your scorecard. The scorecard will display your progress on the storyline you are currently viewing. For a more in-depth explanation of the scoring rubric, please refer to section 2.2 above.
- 6. If you need to leave the game and want to come back later, you can use your username (no password needed) to log back in and pick up where you left off. This will only work on the same device. Data is stored locally on the device and can be reset by clicking the gear icon in the lower left-hand corner of the Anywhere title screen.







Things to keep in mind:

- After students have played through the game once, they can skip the introduction video.
- Students can play through the game as many times as they like! Each story has 50 possible combinations of choices and endings.
- If the decision buttons don't seem to work, make sure students did not hit the pause button by mistake.
- The game does not require any passwords. The information is stored on the local device, and students can retrieve their game information with their username.
- If students are using the game across multiple classes or shared devices, make sure to click the gear icon in the lower left-hand corner to "reset data" on the scorecards.



APPENDIX

Research-Based Design

Our design and development process relied heavily on research. We dove into kids' developmental needs as well as game design ideals. Read below to see some of the thought behind our decisions, explained by Dr. Michael Carter, Ph.D.

What role can gaming play in a classroom/learning environment?

Scholars and practitioners have for decades studied the use of games in classrooms and found that good games that foster learning prove to engage students, particularly disaffected students, in such a way as to improve their grasp and retention across a wide spectrum of subject matter (Malone, 1980; Gee, 2008). Role-playing games and simulations particularly help learners develop skills and intuition because they invest in the decisions they make and persist to do better (Clark, Tanner-Smith, & Killingsworth, 2016). In short, not only do the majority of teachers who use games in their classrooms consider them to be an effective tool for learning (Banville, 2013), but research demonstrates that learning games produce measurable gains among the students who play them (Clark, Tanner-Smith, & Killingsworth, 2016).

How is this approach developmentally appropriate?

Reports on, and frameworks for, successful middle grade schools emphasize that curriculum must be relevant, challenging, integrative, and exploratory, and that assessment must allow students to demonstrate their knowledge and skills (Andrews, Caskey, & Anfara, 2007). Learners in early adolescence are particularly sensitive to the presence or absence of emotion in their activities, and active learning motivates them more than lectures or textbooks (Armstrong, 2006; Bishop & Pflaum, 2005). Around the age of 11 or 12, children learn to think about abstract concepts, and, as well, adolescent egocentrism emerges—an attentiveness to what others are thinking of them (Anthony, n.d.). It is a very good time for adolescents to "practice" by way of role-playing and taking the perspective of others, for this is when they begin to perceive problems in several dimensions and start to think strategically (Blakemore & Choudhury, 2006).

Why is the second person, "you," more impactful than "I"?

Narrators have spoken to digital gamers since the very beginning, nearly 40 years ago, when Will Crowther's original Adventure text game announced, "YOU ARE STANDING AT THE END OF A ROAD BEFORE A SMALL BRICK BUILDING. AROUND YOU IS A FOREST. A SMALL STREAM FLOWS OUT OF THE BUILDING AND DOWN A GULLY." Players responded by typing, "GO IN," and thus went down the "rabbit hole" to explore the colossal cave. When graphics were added to such games, tokens such as those used in chess and checkers and Monopoly and Dungeons & Dragons were replaced with player characters and avatars. Players can at the same time be in the game and be playing it. This increases their engagement, since it is they who are making choices played out in the scenario.

How does play through an avatar affect inquiry-based learning?

Learners who participate in gameplay through the person of an avatar—a representation of themselves—usually behave in a fashion consistent with the character of their chosen surrogate. They will, though, be more outgoing and risk-taking when acting through their avatar (Messinger et al., 2008). Moreover, studies done over the last decade demonstrate that the consistency effect carries over into real life. Kids who play the "good guy" in a game behave better when they're done (Yee, 2009; Yoon & Vargas, 2014).

How can kids build empathy through taking others' perspectives?

Research suggests that playing a pro-social game increases interpersonal empathy and decreases the pleasure players take in others' misfortune (Greitemeyer, Osswald, & Brauer, 2010). Players acting in a manner that allows them to understand and to feel the emotions one would in a real-life situation are more prone to understand others' thoughts and feelings in such situations (Chmielarz, 2013).

Do boys and girls play through this model differently?

Research has found that boys play games for achievement-oriented reasons and are more aggressive than girls (Williams, Consalvo, Caplan, & Yee, 2009). However, in multiplayer games, qualitative analysis suggests that players who demonstrate empathy with their avatars' genders are able to form positive interpersonal relationships that allow them to accept others' expressed identities (Osborne, 2012). So players making choices for an avatar of a different gender become more likely to understand challenges from the point of view of someone of that gender and to behave more empathetically to their dilemma.

How does repetitive, exploratory play affect real-world decision-making?

An inquiry-based approach to teaching and learning seeks to foster intellectual engagement and foster deep understanding. If play is considered the creative tension between rules and freedom, between what is known and unknown (Thomas & Brown, 2011), then play as a way of practicing real-world situations becomes rehearsal for those very situations and the challenges they present. The player is ready to confront the dilemmas and make the right choice.

How can fantastical (i.e., outrageous) scenarios be applicable to/impactful for real-world situations?

Researchers have found that a number of factors influence a learner's ability to apply new knowledge, including the nature of the learning experience and the contexts for the initial learning and the new situation to which it may apply (Darling-Hammond & Austin, 2003). The study of game transfer phenomena covers not only cognitive behaviors in real life that derive from engaging gameplay, but also affective behaviors. One early study (Anderson, 1983) demonstrated that imagining performing behaviors as the main character in a script changed personal intentions for several days after. Games allow people to adopt virtual identities. The appeal of games is due in part to their ability to provide players with novel experiences that let them "try on" ideal aspects of their selves that might not find expression in everyday life. Research has found that games have the greatest influence on emotions when players' experiences of themselves during play were congruent with players' conceptions of their ideal selves (Przybylski, Weinstein, Murayam, Lynch, & Ryan, 2012).

How is playing with positive, neutral, and negative outcomes effective?

Cognitive evaluation theory/self-determination theory predicts that interpersonal events and structures (e.g., rewards, communications, feedback) that encourage feelings of competence and autonomy will enhance intrinsic motivation. Choice and the opportunity for self-direction appear to enhance intrinsic motivation, as they afford a greater sense of autonomy (Korteling, Helsdingen, Sluimer, van Emmerik, & Kappé, 2011). Having players' decisions lead to different outcomes engages players and encourages them to try different paths through difficult situations.

What purpose do embedded mini-games serve?

Traditionally, mini-games are interspersed with role-playing games both to reinforce what is being learned and to give the player a palpable sense of progress (Frazer, Argles, & Wills, 2007). The more concrete the concept embodied in the game, the more likely the player is to grasp the concept and retain it (Illanas, Gallego, Satorre, & Llorens, 2008). The knowledge and skills the players have acquired in the role-playing games serve to help them solve the puzzles more effectively (Jonker, Wijers, & van Galen, 2009).



BIBLIOGRAPHY

Adams, E. (2010). Fundamentals of game design. Retrieved from http://books.google.com/

- Anderson, C. (1983). Imagination and expectation: The effect of imagining behavioral scripts on personal intentions. *Journal of Personality and Social Psychology*, 45(2), 293-305. https://doi.org/10.1037/0022-3514.45.2.293
- Andrews, P. G., Caskey, M. M., & Anfara Jr., V. A. (2007). Research summary: Characteristics of exemplary schools for young adolescents. Retrieved from http://archives.pdx.edu/
- Anthony, M. (n.d.). Cognitive development in 11-13 Year Olds. Retrieved from https://www.scholastic.com/parents/
- Armstrong, T. (2006). The best schools: How human development research should inform educational practice. Alexandria, VA: Association for Supervision & Curriculum Development.
- Baek, Y. K. (Ed.) (2010). Gaming for classroom-based learning: Digital role playing as a motivator of study. Hershey, PA: Information Science Reference.
- Banville, L. (2013, October). Do educational video games actually work? Games & Learning. Retrieved from http://www.gamesandlearning.org/
- Bishop, P. A., & Pflaum, S. W. (2005, March). Student perceptions of action, relevance, and pace. Middle School Journal. Retrieved from http://files.eric.ed.gov/
- Blakemore, S.-J., & Choudhury, S. (2006) Development of the adolescent brain: Implications for executive function and social cognition. Journal of Child Psychology and Psychiatry, 47(3/4), 296–312.
- Caskey, M. M., & Anfara Jr., V. A. (2007). Research summary: Young adolescents' developmental characteristics. Retrieved from https://pdxscholar.library.pdx.edu/
- Chmielarz, A. (2013). Empathy in game design, or why some people like Beyond: Two Souls. Retrieved from http://www.theastronauts.com/
- Clark, D. B., Tanner-Smith, E. E., & Killingsworth, S. S. (2016). Digital games, design, and learning: A systematic review and meta-analysis. *Review of Educational Research*, 86(1), 79-122. https://doi.org/10.3102/0034654315582065
- Colossal Cave Adventure. (n.d.) Retrieved from https://en.wikipedia.org/
- Darling-Hammond, L., & Austin, K. (2003). Lessons for life: learning and transfer. Retrieved from https://www.learner.org/
- Frazer, A., Argles, D., & Wills, G. (2007, July). Is less actually more? The usefulness of educational mini-games. Paper presented at the 7th IEEE International Conference on Advanced Learning Technologies, Niigata, Japan.
- Gee, J. P. (2008). Learning and games. In K. Salen (Ed.), *The ecology of games: Connecting youth, games, and learning* (pp. 21-40). Cambridge, MA: The MIT Press.
- Greitemeyer, T., Osswald, S., & Brauer, M. (2010). Playing prosocial video games increases empathy and decreases schadenfreude. *Emotion*, 10(6), 796–802. https://doi.org/10.1037/a0020194
- Illanas, A., Gallego, F., Satorre, R., & Llorens, F. (2008). Conceptual mini-games for learning. Retrieved from http://citeseerx.ist.psu.edu/
- Jonker, V., Wijers, M., & van Galen, F. (2009). The motivational power of mini-games for the learning of mathematics. Retrieved from http://www.fi.uu.nl/
- Korteling, J. E., Helsdingen, A. S., Sluimer, R. R., van Emmerik, M. L., & Kappé, B. (2011). *Transfer of gaming: Transfer of training in serious gaming*. Retrieved from TNO: Innovation for Life website: http://files.goc.nl/
- Malone, T. (1980). What makes things fun to learn? A study of intrinsically motivating computer games (Technical Report No. CIS-7). Palo Alto, CA: Xerox Palo Alto Research Center.
- McLaren, K. (2013). The six essential aspects of empathy, part 4: Perspective taking. Retrieved from https://www.karlamclaren.com/
- Messinger, P., Ge, X., Stroulia, E., Lyons, K., Smirnov, K., & Bone, M. (2008). On the relationship between my avatar and myself. Journal of Virtual Worlds Research, 1(2), 1-17. https://doi.org/10.4101/jvwr.v1i2.352
- Most writers are human. (n.d.) Retrieved from http://tvtropes.org/
- National Institute of Mental Health. (2011). The teen brain: Still under construction. Retrieved from http://www.ncdsv.org/
- Ortiz de Gortari, A., & Griffiths, M. (2012). An introduction to game transfer phenomena in video game playing. Retrieved from https://www.researchgate.net/
- Osborne, H. (2012). Performing self, performing character: Exploring gender performativity in online role-playing games. *Transformative Works and Cultures, 11.* https://doi.org/10.3983/twc.2012.0411
- Przybylski, A., Weinstein, N., Murayam, K., Lynch, M., & Ryan, R. (2012). The ideal self at play: The appeal of video games that let you be all you can be. *Psychological Science*, 23(1), 6976. https://doi.org/10.1177/0956797611418676
- Thomas, D., & Brown, J. S. (2011). A new culture of learning: Cultivating the imagination for a world of constant change. Las Vegas, NV: CreateSpace Independent Publishing Platform.

Williams, D., Consalvo, M., Caplan, S., & Yee, N. (2009). Looking for gender: Gender roles and behaviors among online gamers. *Journal of Communication*, 59, 700–725. https://doi.org/10.1111/j.1460-2466.2009.01453.x

- Yee, N. (2009). The Proteus effect. Palo Alto, CA: PARC.
- Yoon, G., & Vargas, P. (2014). Know thy avatar: The unintended effect of virtual-self representation on behavior. *Psychological Science*, 1–3, 1043–1045. https://doi.org/10.1177/0956797613519271

