



## Informed Consent

**Overview.** When NASA invited Ray Bradbury, author of *The Martian Chronicles* (1985), to the Jet Propulsion Laboratory to view photos from the first landing on Mars as they first arrived, the famed writer said his own excitement about space and the inspiration of many scientists had been the fantastic technology envisioned in pre-Space Age science fiction. The National Science Foundation and the Center for Educational Technologies® at Wheeling Jesuit University seek to inspire tomorrow’s scientists in a similar way. This time the inspiration comes not through the written word, but via a medium today’s kids relate to—an online game, albeit an educational one. The concept is simple—kids play the game, then go look up at the Moon. *Selene* (the Greek lunar goddess) is a multilevel, single-player lunar game. *Selene* will study how concrete, game-based experiences can prepare learners to learn.

**Purpose of the research study.** The *Selene* game introduces players to concepts about the Moon’s geology. Researchers at the Center for Educational Technologies will track players’ gameplay to study how the *Selene* environment helps them to learn about the Moon’s geology.

**Expected duration.** The entire game session of video and gameplay should take each player about one hour. However, the length of time a learner spends on the study session depends on how long the learner plays the game. After completing the study, players can choose to return to the *Selene* website (<http://selene.cet.edu>) to play the game as often as they wish.

### Procedures to be followed.

- All players must be sponsored by a *Selene* project recruiter.
- Recruiters will distribute this informed consent form to parents/legal guardians.
- Recruiters must obtain verbal permission from parents for adolescent players.
- Recruiters will distribute an access code to each eligible player.
- *Selene* players must be able to see, hear, and physically control the computer mouse and keyboard. Parents must verify their child/ward has these three abilities.
- Players will log on to <http://selene.cet.edu/play>. Players will register with a unique, made-up username. The game will assign a password to each player. (*Selene* may collect player’s computer specifications (e.g., RAM and browser).

- Players must record their username and password in a safe place. The game will not collect any personally identifiable information, so a player who forgets username and password will not be able to access the game.
- *Selene* will ask each player to provide:
  - Mother’s/Female guardian’s highest levels of education (no high school degree, high school degree, college degree, master’s degree, Ph.D., or M.D. degree).
  - Father’s/Male guardian’s highest levels of education (no high school degree, high school degree, college degree, master’s degree, Ph.D., or M.D. degree).
  - Player’s gender (male/female).
  - Player’s Age
  - Player’s ethnicity/race (African, African-American, Asian, Caribbean, Hispanic, Mixed, Native American, White, Other).
  - Player’s school grade level.
  - Player’s academic grade point average (A-F: Please translate numeric GPAs as 4.0=A, 3.0-3.9=B, 2.0-2.9=C, 1.0-1.9=D, 0-0.9=F).
  - City, state, and ZIP code.
  - Player’s game expertise (self-report of how often and how well they play videogames).

Please prepare your child/ward with this information.

- Players will not provide any personal contact information or their names.
- *Selene* will not collect any personally identifiable information (e.g., IP address).
- Players will complete an introductory module, level one of the game, and level two of the game.
- The game will track all player actions in a database.
- All player data is anonymous. All player activity will be logged to the player’s made-up username and password.
- Throughout the game *Selene* will ask each player to report his/her level of skill and challenge.

The prompt will ask two questions:

	Low					High			
How <b>challenging</b> was the activity?	1	2	3	4	5	6	7	8	9
How <b>skilled</b> were you at the activity?	1	2	3	4	5	6	7	8	9

- *Selene* may ask your player to complete pre/post tests about their lunar knowledge and ability to solve problems involving knowledge about the Moon’s geology.
- After a player finishes the experiment’s game session, the player will have access to:
  - Replay the game.

- Complete short activities about the Moon either alone or with friends and family.
- Investigate Moon-related resources.
- Play other CyGaMEs games, such as an early version of Sony's fLOW game, created by Jenova Chen and thatgamecompany: <http://thatgamecompany.com/games/flow/>.  
*Selene* logs all play activity.
- Players may return to the *Selene* site at any time and as often as they wish.
- Approved recruiters will have access to the Selene Reporting System. The system will provide player progress and achievement.
- Players may earn player achievements for each lunar geology concept mastered during *Selene* (expected rollout winter, 2014). Players may have the option of printing these achievements or posting them to social media (e.g., Facebook). *Selene* will not keep a record of players' social media accounts or logon credentials.
- CyGaMEs *Selene* may ask recruiters to arrange webinar interview sessions with selected players. Players will remain anonymous. Researchers will not know their real names. Researchers will speak with these players and watch and record their decisions and gameplay for research analysis and presentation. Researchers will not see the players and will have no way to identify them.

**Any foreseeable risks or discomforts.** There should be no risks associated with this study beyond those normally experienced in everyday life. Participation by players is voluntary. They may withdraw from the study at any time. Players may withdraw from the study by closing their web browser. There is no penalty or loss of status to players who withdraw; however, they will not be able to access the postgame resources or replay the game. If your player withdraws and your player's recruiter used *Selene* as an assignment, your recruiter will make alternative arrangements to allow your player to earn credit..

**Benefits to subject or to others that may result from this research.** Study participants will have fun while learning how scientists explain the origin of the planets, Earth, and our Moon. The results of this important research will enhance the effectiveness of instruction.

**Alternative procedures or courses of treatment.** There are many ways to deliver instruction—*Selene* is one way. *Selene* is a game to prepare players for future learning. The project does not provide alternative instructional delivery systems for teaching about lunar geology.

**Confidentiality.** All data collection is anonymous. No player names, contact information, or personal identifiers will be collected by *Selene*. Please note that for each player the game system will track all gameplay and all usage of the site.

**Participant rights.** The participant has the right to ask pertinent questions about the research, subjects' rights, and research-related injury to the subject. Subjects can contact the *Selene* research team through e-mail at [selene@cet.edu](mailto:selene@cet.edu) or by telephone (304-243-2479).

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**Participant responsibilities.**

- Keep the details of the *Selene* game a secret from other potential players.
- Keep the registration access code a secret from other potential players.
- Keep username and password secret.
- Never share username and password.
- Never let anyone else use his/her username and password to access the game or site.
- Make sure the computer station is ready to play the game. The game is a Flash-based Internet application. It can be played on a Windows or Mac platform. Windows users need at least Internet Explorer 7. Each computer used to play the game will need: Flash 10+ (free download), Sound (headset or speakers), video card. Please see website for details: <http://selene.cet.edu/?page=faq#20>.

***Selene* expectations.**

- *Selene* expects each player to try hard to accomplish game goals.
- *Selene* expects each player to complete the entire study session.
- *Selene* will track all player interaction with the *Selene* website during and after the *Selene* study session.
- *Selene* owns all data collected through the *Selene* site.

**Institutional Review Board.** The Institutional Review Board at Wheeling Jesuit University has approved this study. Participants with questions about their rights as human subjects may contact the board chair, Dr. Alison Kreger, 304-243-7201 x103, [akreger@wju.edu](mailto:akreger@wju.edu).

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By giving my oral consent to a *Selene* recruiter, I am agreeing that my child/ward may participate in the *Selene* study, as summarized above. My child/ward is 9 to 18 years old. My child has the physical and mental ability to see and react to the computer screen images, hear the computer's audio signal, and physically manipulate the mouse and computer keyboard. I realize that the *Selene* password and access code must remain confidential, and my child/ward may not share it with any other person. I realize that my child/ward must give an honest effort to play the *Selene* game from the beginning of the

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study session to the end, although my child may withdraw from the study by closing the computer browser at any time. I realize that my child may access *Selene* anytime, 24/7. *Selene* will continue to provide activities and resources to players after they complete the study. I realize that *Selene* will track all player activity while logged on to the *Selene* site. I realize that if my child's recruiter is his/her educator of record, that recruiter may be able to track my child's progress and achievement. For research purposes, my child's identify will remain anonymous.

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## Informed Consent Signature

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If your *Selene* recruiter needs a written signature, please complete this section. Keep a copy of the informed consent for your records and return the signed copy to your recruiter. CyGaMEs researchers do not receive copies of the signed informed consent form.

You can download and print extra copies of the informed consent form:

English: <http://selene.cet.edu/pdfs/informed-consent-form.pdf>

Spanish: <http://selene.cet.edu/pdfs-esp/informed-consent-form.pdf>

Please print your player's full name.

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*Print Player's First Name*

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*Print Player's Last Name*

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*Your Signature*

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*Date*

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