

Volume 2, Issue 2 Introduction

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Welcome to the fourth issue of the *Journal of Technology-Integrated Lessons and Teaching* (JTILT). This journal publishes international, peer-reviewed, technology-rich lessons, activities, and materials for teachers. These resources are freely available for adaptation, use, and dissemination through a [Creative Commons, Attribution-NonCommercial-ShareAlike 4.0 International license](#) (CC-BY-NC-SA 4.0). JTILT provides a venue for PK-12 teachers, media specialists, librarians, instructional coaches, administrators, teacher educators, and other relevant parties to highlight, reflect, and share teaching practices.

THIS ISSUE

Celebrating the second year of the *Journal of Technology-Integrated Lessons and Teaching* (JTILT), we extend our gratitude to the dedicated authors, editors, reviewers, and advisors who have been instrumental in breathing life into this scholarly endeavor. Special thanks are due to the [Association of Educational Communications and Technology](#) (AECT) and the University of Wyoming for their unwavering sponsorship and commitment to publishing this open-access journal.

In this issue, we delve into various topics including Augmented Reality (AR), game design, close reading via digital resources, introductory activities for makerspaces, and 3-D geometry. This issue also shares the award-winning submissions from two different contests at the 2023 AECT conference – the Teacher Education Division (TED) PK-12 Lesson Design Competition and the JTILT Technology-Rich Lesson Plan Competition. The issue first presents five peer-reviewed article submissions, then it shares seven award-winning lessons from the AECT conference, three of which are also published with peer review.

SUBMITTED ARTICLES

The first three articles leverage technology to create digital resources that enhance learning and communication in meaningful ways. The first article is “Creating Interactive Books with Augmented Reality.” This workshop, from the AECT conference, empowers educators to integrate AR into their professional lives by creating a book or curriculum vitae. The second article shifts from augmented reality to making video game ideas a reality in “Using Nintendo’s Game Builder Garage to Facilitate Hands-On Learning in Graduate Game Design Education.” This activity highlights the hands-on use of the *Game Builder Garage* application to teach game design principles in an online, graduate-level course. Another article that leverages digital creation tools for learning and teaching is “Digital Florilegium: A High-Tech Twist on an Ancient Reading Practice.” The third article of this issue, it explores close reading using a shared digital repository.

The fourth and fifth articles of this issue focus a little more on the physical world. “Tinkering and Modeling: A Hands-on Learning Experience in A Supplementary Mathematics Classroom,” focuses on three-dimensional artistic approaches to geometry in high school. The lesson uses Tinkercad for the virtual design of 3-D models and then papier-mâché for hands-on application of the designs. The final article in this section, “Welcoming Newcomers to Makerspaces,” addresses the challenge of underutilized makerspaces through introductory activities that span circuitry, robotics, and cutting machines.

We eagerly invite you to explore these articles and engage with their wealth of insights, resources, and approaches. We sincerely hope that this collection will contribute to the ongoing dialogue and practice around technology-integrated lessons and teaching, fostering creativity in teaching and learning.

AWARD ARTICLES

The 2023 AECT conference introduced two new competitions for the Teacher Education Division. The first competition tasked conference attendees to design a learning activity or resource using the Cricut Maker 3 cutting machine. This issue presents submissions from the two winners of that contest and an honorable mention. Each winner was also awarded their own Cricut Maker 3 cutting machine. The second competition asked for technology-integrated lessons to be submitted to the Teacher Education Division in the form of abbreviated JTILT submissions. The two winners and two honorable mentions from this competition are also presented in this issue. The winners each received an award of \$100.

Each activity/lesson from the TED PK-12 Lesson Design Competition shares the resources needed to cut and implement the authors' ideas. "Frog Olympics" leverages the specific cutting capabilities of the Cricut to provide uniform resources for a middle-school lesson about data tracking and analysis. "Exploring Geometry and Art Through Tessellations" focused on using pieces cut from the Cricut Maker 3 to teach elementary students about the tiling of various standard and non-standard shapes. Lastly, "Exploring the Volume of a Cylinder" provides details for cutting various pieces needed to create paper cylinders. The lesson allows grade 5-8 students to experiment with how the different dimensions of 3-D objects affect the object's volume.

The lessons shared as part of the JTILT Technology-Rich Lesson Plan Competition required authors to share streamlined, condensed versions of JTILT articles. Two winners were chosen, as well as two honorable mentions. The authors of each submission were allowed to undergo the peer-review process for their submission if the submission met other JTILT requirements, such as having been implemented previously in a K-16+ context. Three of the four submissions went through peer-review. "Building a Collaborative Game Controller with Makey Makeys," challenges K-12 students and pre-service educators with exploring the educational benefits of using games for a collaborative Makey Makey design challenge. "Fortune-Telling Finches: Linear Functions as Predictors," presents an 8th-grade math unit where students use block coding to make Finch robots move across plexiglass surfaces.

The two submissions receiving honorable mentions in the lesson competition were "Virtual Roller Coaster Design" and "Synthesizing Magnesium Oxide Through a 3D Experience." The first leverages mathematics and physics principles within simulation software to help 10th-grade students design their own roller coasters. The second uses a 3-D simulation to help high school chemistry students better visualize chemical reactions at the molecular level.

GET INVOLVED

REVIEWERS NEEDED

We hope you will enjoy this issue and share it with colleagues and students! We also hope you will get involved. The editorial team is looking for educators to review manuscripts in various subject areas (e.g., mathematics, STEM, history, social studies, English and language arts, world languages, physics, biology, chemistry, visual and performing arts, physical education, business). Our journal is only as effective as our review process. We welcome your help, regardless of your prior experience. Contact Craig Shepherd (cshphrd2@memphis.edu) or Cecil Short (cshort5@emporia.edu) for more information or to volunteer.

SUBMISSIONS WELCOMED

Additionally, we hope that you submit your original lessons for publication. [Submission information and procedures](#) are available on the JTILT website. We are currently welcoming submissions on all PK-16+ topics. If you wonder whether a lesson or activity is suitable for the journal, we are happy to discuss ideas and provide suggestions. Contact us via the email addresses above.