

TECHNOLOGY THAT MAKES A DIFFERENCE IN

# Education

TUESDAY, FEBRUARY 14, 2017  
9:00 AM - 3:00 PM

[CLICK HERE TO REGISTER TO ATTEND](#)

\$178 or 7 ETTC Hours

At the SRI&ETTC  
10 W. Jimmie Leeds Rd.  
Galloway, NJ 08205



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### Presenting 3D in Education

3D STEM Learning Solutions = Greater Student Retention and Engagement

Presenters: Larry Perry and Teale Carroll

Why is 3D important to the classroom and how will you benefit from the lessons that are presented? The results are clear. 3D has a powerful effect on students understanding, awareness and retention. As we endeavor to make the educational environment richer and more engaging, 3D STEM EDUCATION is designed to help teachers teach and students understand how the academic disciplines of Science, Technology, Engineering and Mathematics impact their world and make learning more personal and productive. You will learn how easy it is to integrate 3D lessons with curriculum content standards.

#### IMPROVING STUDENT LEARNING AND ENGAGEMENT WITH 3D

Math: Calculating the volume of cylinder in 3D will convince you that challenging concepts become easier to understand.

Animations and Interactive Objects: You can explore, dissect and manipulate virtual 3D objects at varying levels of difficulty and fully interact with each model. View the heart and circulatory system as objects are rotated to a 360-degree angle while zooming in and out.

3D Videos: A lesson using high-resolution 3D video, dramatically demonstrates how a virus affects the body and the way antibiotics destroy bacteria. Researchers continue to document the benefits of 3D video. There are over 1700 hundred 3D videos directly relating to STEM subject matter.

#### The "impact" of "3D" on "academic" results"

The results of the research indicate a marked positive effect of the use of 3D animations on learning, recall and performance in tests. Under experimental conditions, 86 of pupils improved from the PreA test to the PostA test in the 3D classes, compared to only 52 who improved in the 2D classes. Within the individuals who improved, the rate of improvement was also much greater in the classes with the 3D. Individuals improved test scores by an average of 17 in the 3D classes, compared to only an 8 improvement in the 2D classes between PreA test and PostA test. <sup>1</sup>

The marked improvement in test scores was also supported by qualitative data that showed that 100 of teachers agreed or strongly agreed that 3D animations in the classroom helped the students understand concepts better, and 100 of teachers agreed or strongly agreed that the pupils discovered new things in 3D learning that they did not know before. The teachers commented that the pupils in the 3D groups had deeper understanding, increased attention span, more motivation and higher engagement.

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<sup>1</sup> <https://edtechdigest.wordpress.com/2013/09/23/3d-in-the-classroom/>