



## Discovery Education Publisher's Response to EdReports Review Science Techbook

February 2019

Discovery Education was invited by EdReports to participate in the inaugural round of science instructional materials reviews. We share EdReports' mission to ensure that the highest quality teaching materials reach the classroom but believe the review of the Discovery Education Middle School Science Techbooks, California NGSS 2017-2018 ("Science Techbook") was deeply flawed in three fundamental ways:

1. EdReports review process puts constantly evolving digital products at a disadvantage.
  - Discovery Education began building the Science Techbook in 2017, and then in May of 2018, that digital version was shared with EdReports.
  - The version of the Science Techbook currently piloted in California has been enhanced since its submission to EdReports almost 10 months ago.
  - The version reviewed and scored by EdReports is a snapshot in time of the beta-version service from 10 months ago and does not reflect the improved iteration of the service now being piloted. Discovery Education has made significant enhancements, expanding Science Techbook to a suite of digital, print, and hands-on resources, including –
    - new print teacher guides with detailed explanations and step-by-step daily instructions to help guide teachers in NGSS implementation for all students;
    - new print student editions designed to develop through-course understanding and development of phenomena-based three-dimensional learning;
    - updated digital platform experience to help students and teachers easily navigate and experience NGSS three-dimensional learning in daily instruction; and,
    - expanded hands-on components including materials kits, and enhancement of phenomena-based science content in both digital and print formats.
2. EdReports did not fully consider all components of Science Techbook into the final score awarded to the service.
  - Science Techbook is built upon the widely accepted, and nationally recognized, 5E model. Our instructional design is based on the research-proven BSCS 5E instructional model<sup>1</sup>

- Every concept in Science Techbook expects students to demonstrate three-dimensional learning throughout the entire 5E learning cycle. The unique relationship of digital and print which is offered in the new Science Techbook will provide an even more powerful approach to engage and excite students at all levels.
  - However, EdReports only fully considered 4 of the 5 Es, and did not fully acknowledge the “Elaborate with STEM” component of our product. EdReports said they believed this section was optional for students and teachers, and as a result, this major section of the service was not fully considered in the score. We clarified our position that this section was not optional, yet EdReports still did not fully consider this part of the service in scoring.
3. Discovery Education’s submission has in the past received positive reviews when scored against EQuIP and IMET NGSS reviews. Yet, our submission was scored significantly lower by the EdReports rubric, which we understand was based on those two rubrics. We believe this disconnect is rooted in EdReports’ preference for a prescribed learning path.
- Our services have done exceptionally well when reviewed with the EQuIP, IMET, and other instructional product review rubrics. We have won every state-level teacher review we have entered, including California, Oregon, West Virginia, Tennessee, as well as many local adoptions.
  - Our success in other NGSS state and local adoptions that used the EQuIP and IMET rubrics demonstrate that our earlier versions of Science Techbook are well-aligned and fully meet the expectations of the NGSS.
  - We believe EdReports expects instructional materials should provide teachers and students a more singular, prescribed pathway through the learning experience.
  - Discovery Education believes in providing multiple pathways for students and teachers, and in line with Universal Design for Learning (UDL) principles, we are committed to providing multiple learning pathways for all types of users in all educational settings.
  - We feel it is essential that students experience NGSS three-dimensional learning through multiple paths into concepts and then be able to express their understanding in multiple ways, and accordingly we have designed our products with these UDL concepts as a major organizing feature.
  - EdReports seems to expect that most middle school science classrooms are provisioned in a standardized way with the full sets of labs and equipment that one may find in suburban or private schools. Science Techbook was designed to work well in these settings but also in schools that may not be as well provisioned.
  - We remain committed to ensuring that NGSS three-dimensional learning is accessible to all students but feel that our UDL design, which EdReports read as “optionality” has unfairly penalized us in this review.

Discovery Education outlined the flaws we believe exist in the current review process, provided objections to the EdReports' findings, and offered a point-by-point rebuttal of EdReports' review of the service. While some of our feedback was taken into account, much of it was not.

Our mission is to ensure that teachers and students have the highest quality instructional materials in their hands for daily use. The EdReports reviews of our Math Techbooks show our commitment to this high standard. We are confident that the work Discovery Education has undertaken in the many months since we began this version in 2017 will result in a review that builds on our tradition of producing the highest quality instructional materials.

EdReports has committed to reviewing a new iteration of the Middle School Science Techbooks. It is anticipated the review will begin in the summer of 2019 and we expect an updated report will be available by the end of the year.

<sup>1</sup> Bybee, R. W., Taylor, J. A., Gardner, A., Van Scotter, P., Carlson Powell, J., Westbrook, A., & Landes, N. (2006). *The BSCS 5E instructional model: Origins and effectiveness*. Colorado Springs, CO: BSCS.