Imagine Math

SUPPORT FOR THE UNIVERSAL DESIGN FOR LEARNING

Universal Design for Learning (UDL) is a set of three guiding principles that offer all students equal opportunities to learn. UDL provides a framework for devising flexible, adjustable instructional goals, methods, materials, and assessments that can be personalized to every learner's individual needs, as opposed to a static, one-size-fits-all solution. UDL also encourages opportunities for learning outside of the traditional classroom environment.

PRINCIPLE 1.

Present information and content in different ways.

Extensive use of multiple types of graphic representations and models, all supported with both English and Spanish audio.

Multiple representations of concepts provide opportunities for students to make connections within, as well as between, concepts—helping them to understand math as a coherent system and facilitating the transfer of learning.

Interactive games and the related gamification process provide a contextual framework for applied practice with instant feedback.

Interactive games are directly integrated into lessons to facilitate a student's recall of prior math knowledge and concepts that will be used within the current lesson. These games not only ensure that students come into the instructional segment of the lesson "cognitively primed" for learning new concepts, but also function as a motivational aspect of the program as students earn points that can be applied to individual or collaborative goals.

Support for each learner's unique needs through immediate multi-level corrective feedback within each lesson and on-demand tutoring from certified math teachers.

Imagine Math utilizes text, illustrations, short animations, and integrated audio throughout the program to adapt to differing learning styles.

PRINCIPLE 2.

Differentiate the ways that students can **express** what they know.

Age-appropriate adaptive software that enables each learner to move at their own pace, while affording them the opportunity to achieve goals.

Students can see at any point where they are within their customized learning pathway and adjust their pacing accordingly.

Problem-solving framework specially designed to help students develop higher-order thinking skills and problem-solving abilities.

Sudents are provided with opportunities to strengthen their executive function abilities, and recognize that there is often more than one way to address a specific problem or to arrive at a correct outcome. The organizational skills students develop through this approach extend well beyond the math classroom.

Immediate corrective feedback, performance-based pathways, motivation for perseverance, and access to on-line teachers reduce math anxiety and provide a supportive learning environment.

The research-proven Gradual Release model, devolving responsibility within the learning process from the teacher to the eventual independence of the learner, allows students to take ownership of new concepts on a measured basis to ensure lasting mastery and success.

PRINCIPLE 3.

Stimulate interest and **motivation** for learning.

Utilizes intrinsic and extrinsic, short-term and long-term, and individual and collaborative motivational strategies keep students engaged.

Imagine Math recognizes that there are marked differences in the manners through which learners can be motivated to learn, such as spontaneity versus predictability and individual versus collaboration

Personalized avatars, leaderboards, regional and national contests, collaborative classroom goals, and donations to charity keep students engaged and excited about learning.

Since not all students are motivated in the same manner, and even a single student may be motivated by different rewards or recognition opportunities at different times, Imagine Math enables students to select from multiples types of incentives as they work through their lesson pathway.

Points awarded for effort AND accomplishment encourage students to persevere through more complex concepts.

Points are never taken away for making errors or asking for help, so students are encouraged to develop a growth mindset toward math and to reflect on their mistakes as an integral part of the learning process.