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ENRICHMENT AND EXTENSION GUIDE

How Enrichment and Extension Work in Magma Math

Using multiple representations, varying difficulty, and consistent expectations to deepen mathematical thinking

Magma Math enriches and extends learning through two things that are built into every assignment: problems at varying levels of difficulty, and a workspace that encourages students to show their thinking in multiple ways. This guide explains how those elements work together to deepen mathematical understanding—and what effective implementation looks like in your classroom.

Showing Thinking in Multiple Ways

The **Student Canvas** is an open workspace where students build their solutions at whatever level of representation makes sense for them. They can use built-in **manipulatives**—fraction bars, number lines, base-ten blocks, place value charts, algebra tiles—to model problems concretely. They can draw diagrams, sketch area models, and annotate their reasoning. They can write equations and show symbolic procedures. And they can record **voice explanations** to talk through their thinking.

This supports a **Concrete–Representational–Abstract** approach naturally. A student might start with manipulatives, move to a drawn model, and arrive at a symbolic solution—all on the same canvas, all visible to you. Another student might go straight to the equation and annotate why each step works. Both are showing mathematical reasoning. Both give you something to work with.

When you pin specific solutions to project anonymized student work, the whole class sees these different strategies side by side. You can ask: “Here are two approaches to the same problem. What is different? Which is more efficient? Why?” **Discussion Points** help you structure that conversation around reasoning and justification—not just correctness.

Varying Difficulty Within Every Standard

Every standard in Magma Math includes problems at three levels: **Mild**, **Medium**, and **Spicy**. Mild problems introduce the concept with scaffolding. Medium problems apply it with grade-level rigor. Spicy problems require multi-step reasoning, strategy comparison, and mathematical justification.

This structure means enrichment is built into the content, not bolted on. When you assign a problem set that spans all three levels, every student in the class is working on the same standard—but at a level of complexity that matches where they are. Students who demonstrate understanding at Medium move naturally into Spicy, where the thinking deepens without leaving the grade-level standard.

For students who are ready to go further, Magma's content library spans all grade levels. You can assign problems from a higher grade directly to a student or group. They work in the same platform, in the same class, and don't see which grade the problems come from—they just see problems matched to where they are.

What Effective Implementation Looks Like

Effective enrichment is not a special event—it is what happens when the right expectations are in place from the start. The way to enrich student learning is to build those expectations early and consistently.

Build a culture of showing work

Start by establishing a consistent expectation: students show their thinking on every problem. Use **Live Activity** to project the class's work in real time so students see that their reasoning is visible and valued. When showing work is the norm—not an extra step—students engage more deeply with the mathematics from the beginning.

Celebrate thinking that the class can learn from

When you see a solution that displays thinking clearly, share it. Pin specific student solutions to project anonymized student work and highlight what makes the reasoning strong. This turns one student's approach into a learning moment for the whole class—the discourse itself becomes an opportunity for enriched learning, beyond the work students are doing individually.

Encourage students to display their thinking in different ways—using manipulatives, color, diagrams, and equations—so their classmates can learn from seeing different representations of the same idea.

Compare strategies

Pin two student solutions side by side and ask your class: "What is the same? What is different?" Use **Discussion Points** to structure the conversation around reasoning and efficiency. When students regularly compare strategies, they start thinking about mathematics as something with multiple entry points—not a single procedure to memorize.

Use data to keep raising the level

Check the **Heatmap** and **Stats Tab** after each assignment. When you see students consistently showing green, move them to **Spicy** problems within the standard or assign

content from a higher grade level. Use **Playback** to review how they approached the harder work—did they use new strategies, or fall back on the same approach? That tells you whether the enrichment is landing.

When students know that showing their thinking is the expectation, that problems will push them at every level, and that their strategies will be part of classroom conversation, enrichment becomes how your classroom works—not something you add on after the lesson is done.