AIM Lesson Roadmap

Prior to instruction:

Be sure you have completed the Before-AIM Assessment.

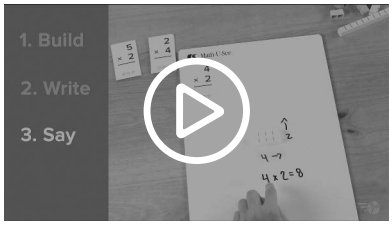
Where are the videos?

You can find the videos in your Digital Pack at digital.demmelearning.com. Log in to access all of your online resources.

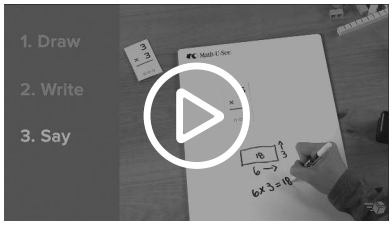
Follow the AIM Lesson Roadmap

To get the most out of the AIM program, follow the AIM Lesson Roadmap. As you progress through the lesson roadmap, be sure to keep the following in mind:

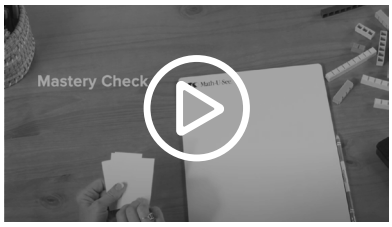
- ***Complete all lessons in the order in which they are presented.***
  The strategies presented in each lesson build upon each other, so completing the lessons in order is key to success.
- ***Each lesson is divided into four parts, called sessions.***
  Each session is structured to meet a specific goal required for mastery. Corresponding *AIM for Success* videos that model these sessions can be found in your Digital Pack.



Sessions A and B
The Build, Write, Say Method
Models the Build, Write, Say process to learn and teach back multiplication facts using the manipulatives



Session C
Fading from the Manipulatives
Demonstrates how to use fading to transition from concrete to more abstract representations of math facts



Session D
Mastery Check
Shows how to use the Fact Check Cards to monitor progress and check for fact mastery

AIM Lesson Roadmap

Complete each session in order from A–D.
Each session follows an intentional learning progression to increase retention.

Keep each session in an AIM lesson to a maximum of 15 minutes.
Observe that designated breaks are included between sessions. Breaks give your student's brain a much-needed rest and allow their attention span to reset. The recommended break time is two hours. It is okay to stop and come back to finish a session later or the next day if needed.

Take advantage of the activities provided for each lesson.
These activities are specifically designed to reinforce the strategy presented in each lesson and are a fun way for your student to practice math facts. You can find the activities under the Activities tab in the Digital Pack. See sample activities in the Appendix of this resource guide.

Students will progress at their own pace.
This program is designed to be adapted to your student's pace so they can take as much or as little time as they need to master the basic multiplication facts.

Look for this icon to make sure your student has ample time to recharge.

Continue the AIM Lesson Roadmap on the next page.

AIM Lesson Roadmap

This is a session-by-session overview of an AIM lesson. Each lesson is broken into four sessions and the instructional methods for each session are demonstrated in the* AIM for Success *videos.

Prepare

Watch lesson video
Read lesson instructions
Study example problems
Gather lesson materials

Which *AIM for Success* video should you watch?

Sessions A and B
▷ *The Build, Write, Say Method*

Session C
▷ *Fading from the Manipulatives*

Session D
▷ *Mastery Check*

You are only required to watch the AIM for Success *videos prior to initial instruction.*

Session A: Present Lesson Instruction

1. Select the *key fact* to be learned and its *companion fact*. (Key facts and companion facts are identified in each lesson.)
2. Model the key fact using the lesson strategy.
3. Model the companion fact using the Commutative Property.
4. Practice all the facts using the Build, Write, Say method.
5. Use lesson-specific vocabulary (when applicable).
6. Have your student teach back all the facts from the lesson.

⏱ *Take a break before continuing to Session B.*

Session B: Demonstrate Understanding

Select a few Fact Check Cards from the lesson (no more than three).

Check: Can your student teach back the fact strategy with the manipulatives?

Yes

Have your student teach back the fact strategy with the manipulatives.

Complete the word problems for the lesson.

No

Continue to practice with the manipulatives (see Build, Write, Say Activities).

⏱ *Take a break before continuing to Session C.*

Session C: Transition Math Facts to Visual Memory

1. Shuffle all the Fact Check Cards from the lesson.
2. Listen and observe your student as they draw, write, and say each of the facts from the lesson. See the Fading Solutions in the Digital Pack for sample drawings.

Assess: Can your student draw, write, and say the answers to all facts in the lesson from memory? Divide the cards into two piles based on your student's responses.

★ **Facts Known:**

Celebrate! Place these cards in a pile.

☆ **Facts Not Yet Known:**

Invite your student to choose one of the following:

- Build, write, and say the math facts.
- Choose an activity for additional practice (see Review Activities).

Reassess that your student can draw, write, and say each math fact.

⏱ *Take a break before continuing to Session D.*

AIM Lesson Roadmap

Session D: Assess for Mastery

1. Shuffle all the Fact Check Cards from the lesson.
2. Listen and observe for counting and long pauses as they say each answer.

Assess: Can your student recall the facts covered in the lesson?
Divide the cards into two piles based on your student's responses.

Facts Known:

Fill in one star on the Fact Check Card.

Celebrate!

Refer to the Activities for ways to maintain recall (see Fast Fact Check-Ins).

Facts Not Yet Known:

Invite your student to choose one of the following:

- Build, write, and say the facts with the manipulatives.
- Draw, write, and say the facts.
- Refer to the Activities for additional ways to practice (see Review Activities).

Reassess recall of these math facts using the Fact Check Cards. Continue until one star is filled in on each card.

Take a break or wait until the next day before assessing for the next star.

When should you move to the next lesson?

- Repeat the steps in Session D until **all three stars** are filled in on the Fact Check Cards for the lesson. (Take as many sessions as needed.)
- Mark the facts from the lesson on the Multiplication Facts Mastery Chart.
- Move to the next lesson.

Exceptions

Some lessons require a different instructional approach.
Lesson-specific directions are included within those lessons.

AIM Higher

Some lessons and activities include information to apply strategies to additional concepts, to define math vocabulary, or to provide opportunities for further critical thinking. These are meant to enhance and expand understanding of the lesson content.

Resources

The Multiplication Facts Mastery Chart can be found under the Resources tab in the Digital Pack.

Prepare for the Lesson

Watch the lesson video and gather the materials listed at the beginning of each lesson. It is crucial to also read the corresponding lesson instruction to ensure appropriate delivery of concepts and vocabulary.

Session A: Present Lesson Instruction

The "What"

This session focuses on using the manipulatives to model and practice the fact strategy.

The "Why"

Using the manipulatives with the recommended instructional methods encourages your student to explore how the strategy works and how it connects to strategies learned in previous lessons.

The "How"

During this session, teach the related concepts to your student by modeling the Build, Write, Say method for math facts in the lesson (watch the *AIM for Success* video *The Build, Write, Say Method* for guidance).

For each lesson, be sure to do the following:

- Model the key fact using the lesson strategy with the manipulatives.
- Use lesson-specific vocabulary (when applicable).
- Use the Build, Write, Say method.

Build: Use the manipulatives to model the example problems from the lesson instruction.

Write: Write the step-by-step solutions as you work through problems.

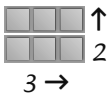
Say: Read the problems aloud. Talk through the "why" of the math strategy as you build and write.

Have your student use the Build, Write, Say method to practice all the facts from the lesson. Allow your student to practice the fact strategy until they can confidently teach it back.

Take a break before continuing to Session B.

The Build, Write, Say method is an integral part of the AIM program.

Build: 

Write: 

$3 \times 2 = 6$

Say: "Three times two equals six."

Session B: Demonstrate Understanding

The "What"

The goal of this session is to confirm that your student can use the manipulatives to apply and teach back the fact strategy after a break.

The "Why"

The word problems allow your student to practice and apply the math fact in a practical context. As they build the fact, have your student think about what each factor represents in the problem and what they are solving for. They can demonstrate understanding by labeling the factors and product.

The "How"

Select a few *key facts* from the lesson and ask your student to teach back the fact strategy with the manipulatives. Have them also demonstrate the *companion fact* using the Commutative Property. If they can do this successfully, have your student complete the corresponding word problems for the lesson. You can check their answers with the Word Problem Solutions in the Digital Pack.

What if my student needs more practice?

Refer to the Activities tab in the Digital Pack for additional ways to practice with the manipulatives (see Build, Write, Say Activities). Continue to instruct and practice the fact strategy in brief sessions until your student can teach it back proficiently with the manipulatives. Once they can do this, take a break, then come back and have them complete the word problems for the lesson.

Take a break before continuing to Session C.

Word Problems are listed in lessons to which they apply. These word problems are also available as a worksheet in the Digital Pack.

Activity Examples can be found in the appendix of this Resource Guide. Additional activities can be found in the Digital Pack for each lesson.

Session C: Transition Math Facts to Visual Memory

The "What"

In Session C, your student will progress to drawing pictorial representations of the Math-U-See manipulatives during the "build" step in the Build, Write, Say method.

The "Why"

Fading, or the concept of moving from something concrete (manipulatives) to something more abstract (drawings), helps transfer math facts to your student's visual memory. A student's ability to recall math facts is reinforced by connecting their drawings to the manipulatives they used in the previous sessions.

The "How"

Use the Fact Check Cards to randomize the math facts from the lesson. Select a math fact for your student to draw.

Focus on the representation of the fact rather than accurate drawings of the blocks. Have your student draw a rectangle to represent the fact, keeping in mind that its dimensions should just be an estimation of the over and up dimensions of the blocks.

Once the rectangle is drawn, have your student label the over and up dimensions with their corresponding factors, say the product, and write it in the center of the rectangle. Then, have your student write out and read the full equation (e.g., 6 x 2 = 12). Listen and observe your student's work.

Divide the Fact Check Cards into two piles based on your student's responses:

★ ***Pile 1—Facts Known***
Place the cards your student can draw, write, and say from memory in a pile.

☆ ***Pile 2—Facts Not Yet Known***
Set aside the card for any fact that cannot be drawn or recalled from memory. When all the Fact Check Cards for the lesson have been gone through, allow your student to choose how they want to practice the facts they could not draw or recall. We recommend the following:

- Use the manipulatives to build, write, and say the math facts.
- Choose a game from the Activities (see Review Activities).

Reassess that your student can draw, write, and say each math fact from the Facts Not Yet Known pile. When they can successfully do this for all the math facts in the lesson, celebrate!

⏱ *Take a break (preferably until the next day) before continuing to Session D.*

Session D: Assess for Mastery

The "What"

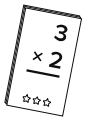
The goal of this session is to determine which math facts your student has committed to long-term memory and which ones still need practice. This is not a timed test—breaks can be incorporated as needed!

The "Why"

It is important to confirm that your student has mastered the facts before attempting to move on to the next lesson. Recall of each fact should be virtually automatic.

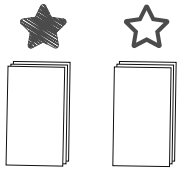
The "How"

Use the Fact Check Cards to assess recall of the facts from a lesson.



Show each card for the lesson to your student. Can they promptly provide the right answer?

Make two piles based on their answers:



★ ***Pile 1—Facts Known:*** Fill in one star and celebrate!

☆ ***Pile 2—Facts Not Yet Known:*** Review these facts.

Be patient, take breaks, and try different activities as needed:

- Use Review Activities from the Activities tab in your Digital Pack.
- Build, write, and say the facts using the blocks.
- Create a mental image of the fact.
- Draw, write, and say the facts.

Check for mastery of these facts again until one star is filled in on each card. Once all cards have one star filled in, the ***first round*** of the mastery check is complete.

Take a break before beginning the next round.
You can also wait until the next day to reassess.

Repeat this mastery check process until each card for the lesson has three stars colored in. For some facts, the stars will be filled in quickly; others may take more time. (Take as many sessions as needed.)

Mark the facts from the lesson on the Multiplication Facts Mastery Chart to keep track of your student's progress. The chart is in the Digital Pack under the Resources tab.

Once all cards have three stars colored in, it is time to move on to the next lesson.