



Personal Math Trainer[®]

National GO Math! K–6

USER GUIDE

Personal Math Trainer

Powered by Knewton

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I. OVERVIEW AND MODES OF THE PMT

The Personal Math Trainer® (PMT) is a powerful tool that monitors student assessments, quizzes, and homework to provide them with targeted support.

The PMT can be utilized in the following ways.

- **Assessment:** can be used for diagnostic, formative, and summative assessment
- **Practice:** reinforces what has been taught and offers learning aids
- **Adaptive Intervention and Enrichment:** builds a student profile, identifies student proficiencies and weaknesses, and can create a personalized learning path
- **Tracking:** can show student progress and growth over time
- **Reporting:** can generate class, school, and district reports by standard or by assignment
- **Grading:** automatically scores items

PRE-BUILT PMT ASSIGNMENTS

The PMT is a collection of pre-built assignments that can be assigned to students in different modes on *ThinkCentral*. The differences between the modes are summarized in the table on the next page.

Assessment (Tests and Quizzes) Mode

- Beginning-of-Year, Mid-Year, and End-of-Year Tests (parallel assessments)
- Show What You Know, Pre-Test, Mid-Chapter Checkpoint, and Post-Test for every Chapter
- Share and Show for every Lesson (items with check mark in Student Edition)
- Performance Task for every Chapter and Critical Area
- Quiz for every Common Core Standard and Cluster

Homework Mode

- Homework assignment for every Lesson
- Show What You Know, Pre-Test, Mid-Chapter Checkpoint, and Post-Test for every Chapter
- Quiz for every Common Core Standard and Cluster

Knewton Adaptive Mode

The pre-built assignments in the two modes above can be assigned to students with Knewton™ Adaptive Workflows so that the PMT Powered by Knewton creates personalized intervention, warm-ups, and enrichment for students. See page 4 for additional information.

ISE Mode

The Interactive Student Edition (ISE) follows the 5-E instructional model of the lesson. The Elaborate and Evaluate screens link out to PMT assignments.

Practice Mode

Once available, the Practice Mode will be found in the Student Edition eBook under the Resource tab. Student usage is neither tracked nor added to teacher reports.

Note: The Student Edition eBook must be selected as a product to include in the students' library in order for students to access the PMT in Practice Mode.

Characteristics of PMT Modes

Modes of PMT	Color of Band	Learning Aid Links	Check Answer/Try Another	Assigned by Teacher	Ability to assign in Knewton Mode	Automatic Grading and Real-Time Reporting
Assessment Mode	 Personal Math Trainer	No	No	Yes	Yes	Yes
Homework Mode	 Personal Math Trainer	Yes	Yes	Yes	Yes	Yes
*Knewton Adaptive Mode	 Personal Math Trainer	Yes**	Yes**	Yes	N/A	Yes
***ISE Mode	 Personal Math Trainer Elaborate  Personal Math Trainer Evaluate (same items as Homework Mode)	Yes	Yes	Yes	No	Yes
Practice Mode	 Personal Math Trainer	Yes	Yes	No (accessed through the eBook)	No	No (but it will give a score to student)

***Knewton Adaptive Mode:** You can choose to apply one of the two Knewton adaptive workflows to any PMT Homework or Assessment assignment. In doing so, Knewton will generate additional, personalized assignments for students based on their performance. For additional information on these two workflows, please see section V. Assigning the PMT.

Daily Intervention and Enrichment Workflow (see page 10 for additional information)

- Knewton Warm-up (5 mins.): intervention generated automatically by Knewton for students who may have difficulty on the upcoming pre-built assignment based on previous performance
- Pre-Built Assignment: the **GO Math!**[®] assignment being given to the student; includes an enrichment threshold setting
- Knewton Enrichment (10 mins.): generated for students who exceeded the enrichment threshold on the pre-built assignment; includes challenging items

Personal Study Plan Workflow (see page 11 for additional information)

- Pre-Built Assignment: the **GO Math!** assignment being given to the student includes a threshold setting for generation of Knewton prescriptive intervention
- Knewton Prescription (15 mins.): generated for students who score below the intervention threshold on the pre-built assignment; personalized assignment containing items intended to address student learning gaps
- Re-Assessment: the initial Pre-Built Assignment is given to the student again so they can show growth and improve their score

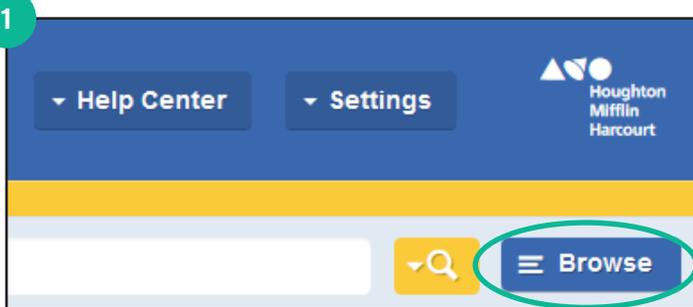
**Knewton-generated portions of a PMT assignment will always feature Learning Aids and Check Answer/Try Another. However, these features are disabled for the pre-built assignment portion of a PMT Assessment (Test and Quizzes mode).

*****ISE Mode:** The Elaborate section contains two items selected to extend students' thinking and apply lesson concepts in problems requiring critical thinking. The Evaluate section contains all the PMT items found in lesson homework.

II. LOCATING THE PMT TO MAKE ASSIGNMENTS

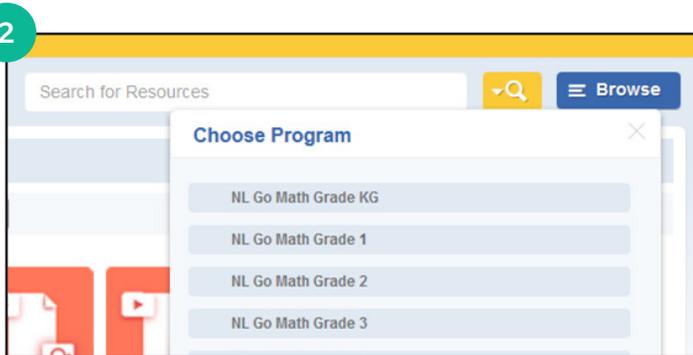
There are several ways to locate the PMT and ISE on *ThinkCentral* to assign and/or schedule it. The quickest and simplest ways are either through the **Search** or **Browse** function.

Note: You will need to have a class (with students) set up that includes adaptive learning products before you can assign and/or schedule a PMT Assignment. For information on how to set up a class, please see the Help Center located on the Teacher Dashboard home screen.



Using **BROWSE** to Locate the PMT or ISE

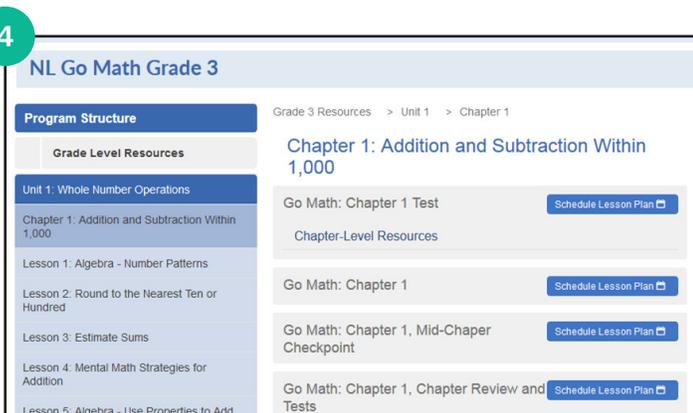
1. Locate **Browse** in the upper right-hand corner of the Teacher Dashboard and click on it.



2. Select your program name and grade level from the drop-down menu.

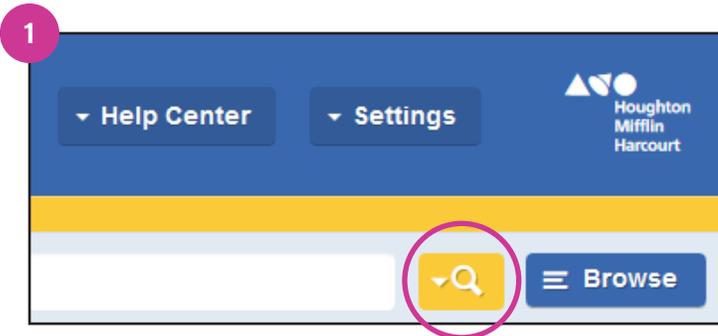


3. Select **Program Structure** on the browse landing page.



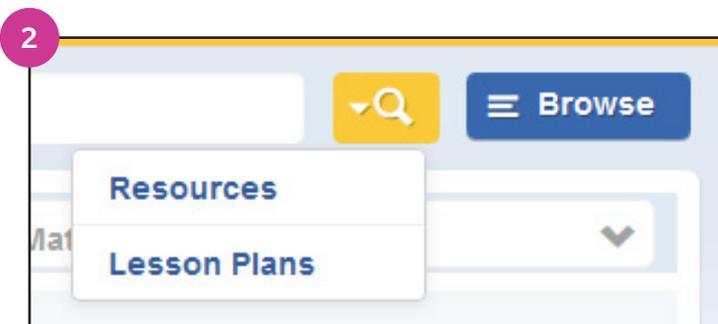
4. Select the specific **Unit**, **Chapter**, or **Lesson** from which you want to assign the PMT or ISE.

Note: The ISE is labeled as "ISE Student View" and is found under Lesson-Level Resources.

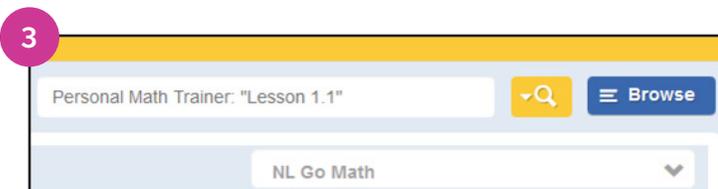


Using SEARCH to Locate the PMT or ISE

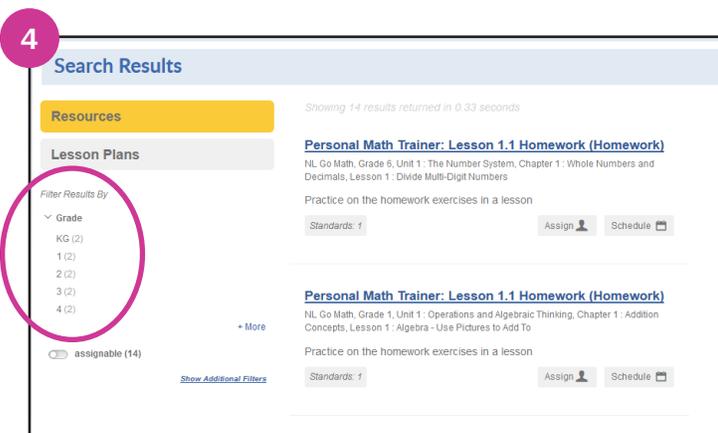
1. Locate the **Search** icon in the upper right-hand corner of the Teacher Dashboard and click on it.



2. Select **Resources** from the Search drop-down menu.



3. Type in the PMT or ISE resource that you would like to preview, assign, or schedule and press enter.



4. You can narrow down the search results by using the filters on the left-hand side of the screen.

READ ME

The chart below contains helpful search terms that will quickly and accurately pull up the PMT or ISE resources for which you are searching.

Type in exactly what is indicated, and change to desired Chapter, Lesson, or Standard Number.

PMT	ISE
Personal Math Trainer: "Lesson 1.1"	ISE Student View: "Lesson 1.1"
Personal Math Trainer: "Chapter 7 Pre-Test"	
Personal Math Trainer: "Chapter 7 Post-Test"	
Personal Math Trainer: "Chapter 7 Mid-Chapter Checkpoint"	
Personal Math Trainer: "Beginning-of-Year"	
Personal Math Trainer: "Mid-Year Test"	
Personal Math Trainer: "End-of-Year Test"	
Personal Math Trainer: "Standard 3.NBT.1 Quiz"	
Personal Math Trainer: "Critical Area 3 Performance Task"	

III. VIEWING THE PMT BEFORE ASSIGNING IT

Whether you use the Browse or Search option to find the PMT, you can always preview it before creating the assignment.

Partial Credit Scoring
 Red X = Entirely Incorrect
 Orange / = Partial Credit
 Green ✓ = Entirely Correct

The color of the band coincides with the mode that the PMT is in. (see page 4 for details)

Learning Aides can be found here for assignments in Homework or Practice mode. Learning Aides vary by grade level and question.

Audio buttons are available for Kindergarten and 1st Grade.

The screenshot shows the 'Personal Math Trainer' interface for 'Lesson 5.6 - Homework'. At the top, there is a navigation bar with buttons for navigating between questions (6, 7, 8, 9, 10). Question 7 is highlighted with an orange band, indicating it is the current question. Below the navigation bar, there is a question prompt: 'Look at the shapes in the addition sentence. Select the correct shapes to show a related subtraction fact.' The addition sentence is represented by a red oval plus a green star equals a green square. Below this, there is a subtraction sentence: a green square minus a blank equals a blank. Three options are provided: A (red oval plus green square), B (green square plus green star), and C (green star plus red oval). A 'Try Again' dialog box is open, providing feedback: 'Look at the addition sentence. When looking for the related subtraction fact, look for the shapes that are not in the subtraction sentence but are in the addition sentence.' On the right side, there are several buttons: 'View Example', 'Math on the Spot', 'Textbook', 'Print', and 'View Standard'. At the bottom, there are buttons for 'Check Answer' and 'Next'.

When students access a PMT assignment, they see two additional buttons. Make sure students understand the difference between [Save & Close](#) and [Turn It In](#).

Check Answer Feature is available in Homework and Practice mode. If students are incorrect they will receive feedback and must try another problem [Try Another](#) of the same type to receive credit.

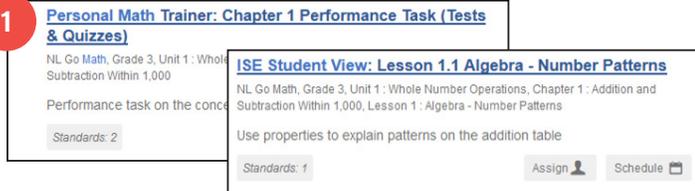
I.OA. Operations and Algebraic Thinking
 I.OA.C. Add and subtract within 20.
 I.OA.C.6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

IV. ASSIGNING THE PMT

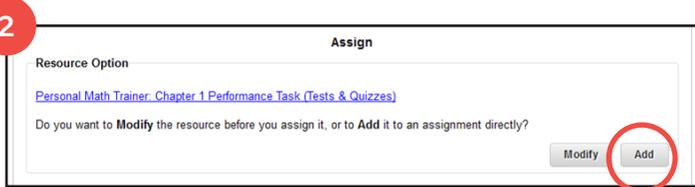
Assigning the PMT through Browse, Search, and mySmartPlanner

When assigning a PMT Assessment or Homework without utilizing Adaptive Workflows, the student will receive only the pre-built assignment. This is the default setting, and Knewton will not create additional intervention or enrichment assignments. See more details about Characteristics of PMT Modes on page 3.

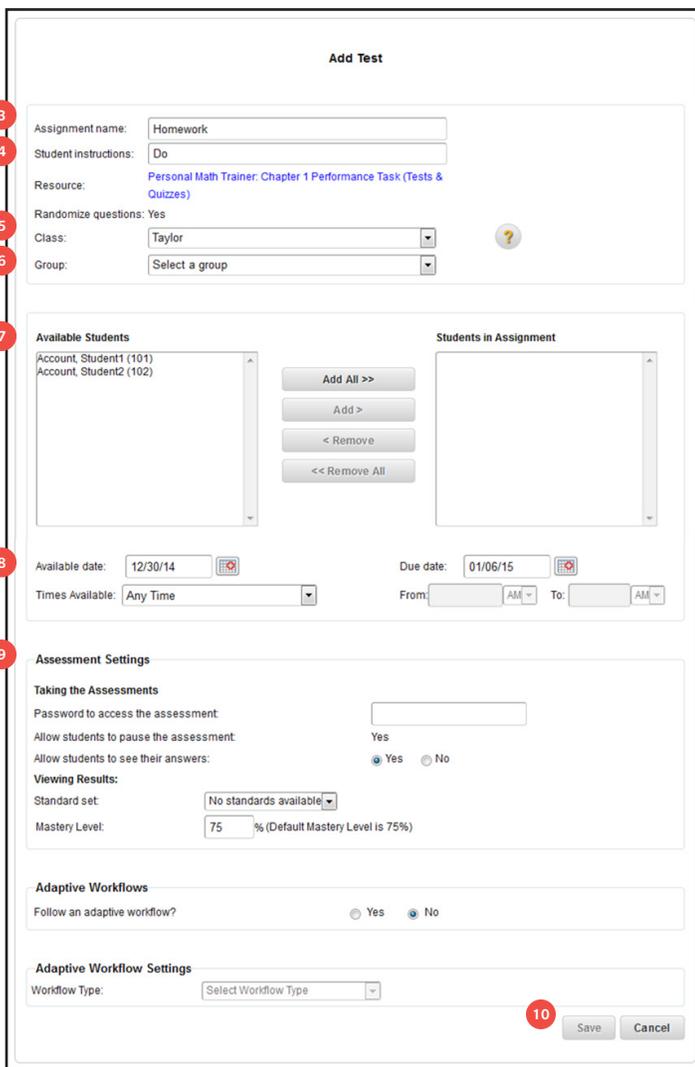
Note: Knewton still collects data from PMT Assignments even when Adaptive Workflows are not utilized.



1. Locate a PMT (or ISE) resource and click on **Assign**. (See the previous section for more information on Locating PMT Assignments.)



2. Click on **Add** to assign the PMT (or ISE) directly. (For information on modifying assignments, see the next section.)



- 3. Enter a name in the **Assignment Name** field.
- 4. Enter directions in the **Student Instructions** field (optional).
- 5. Select a **Class** from the Class drop-down list.
- 6. Select a **Group** from the Group drop-down list (optional).
- 7. Select specific or all **Available Students** to add to the **Students in Assignment** section.
- 8. Select the assignment's **Available Date** and **Due Date**.
Note: You can determine the availability of the test by selecting a time from the Times Available list, then filling in the From and To fields.*
- 9. Set the **Assessment Settings**.
- 10. Click on **Save** at the bottom of the page.

***Note:** Students must click the "Turn It In" button prior to the end time of the assignment, otherwise their work will be lost.

Assigning the PMT in Knewton Adaptive Mode

Knewton Adaptive Workflows can be applied to any PMT Homework or Assessment assignment. They cannot be applied to the ISE. See more details about Characteristics of PMT Modes on page 3.

2

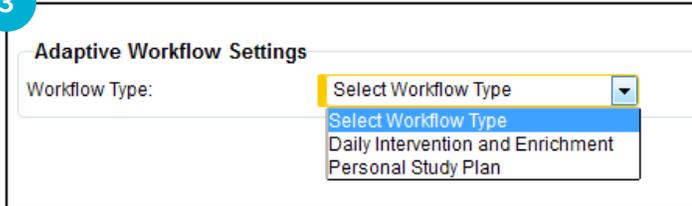


Adaptive Workflows

Follow an adaptive workflow? Yes No

1. Follow steps 1–9 from the previous section.
2. Under **Adaptive Workflows**, select Yes.

3



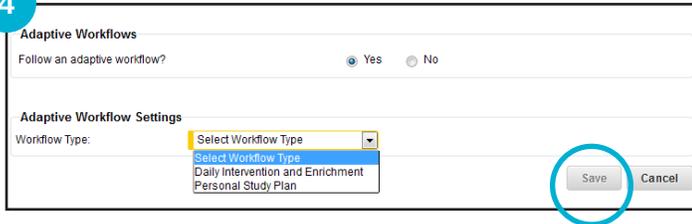
Adaptive Workflow Settings

Workflow Type: Select Workflow Type

- Select Workflow Type
- Daily Intervention and Enrichment
- Personal Study Plan

3. Choose one of the two **Adaptive Workflow Settings: Daily Intervention and Enrichment** or **Personal Study Plans**. (See the next section for descriptions of both.)

4



Adaptive Workflows

Follow an adaptive workflow? Yes No

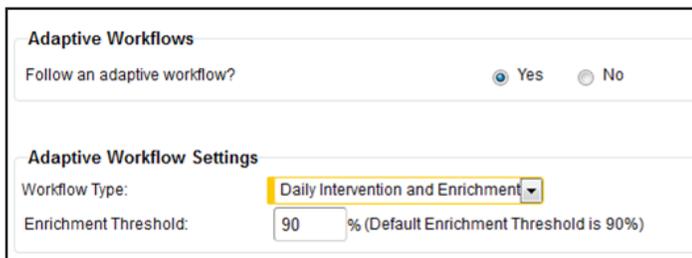
Adaptive Workflow Settings

Workflow Type: Select Workflow Type

- Select Workflow Type
- Daily Intervention and Enrichment
- Personal Study Plan

Save Cancel

4. Click on **Save** at the bottom of the page.



Adaptive Workflows

Follow an adaptive workflow? Yes No

Adaptive Workflow Settings

Workflow Type: Daily Intervention and Enrichment

Enrichment Threshold: % (Default Enrichment Threshold is 90%)

Daily Intervention and Enrichment Workflow

- This adaptive workflow was designed for formative, daily use in the classroom or computer lab; to accompany homework; or as an instructional option in a blended-learning environment.
- This pathway provides students with a warm-up composed of prerequisite skills or prior grade-level skills that have been identified by Knewton. Students receive it prior to the pre-built assignment to set them up for success on the PMT assignment you've given them.
- Students must complete this warm-up prior to completing the pre-built assignment.
- If their performance on the pre-built assignment meets the Enrichment Threshold*, they will be given an additional assignment that consists of enrichment activities.

***Note:** The Default Enrichment Threshold is 90% but can be adjusted to meet your needs.

Adaptive Workflows

Follow an adaptive workflow? Yes No

Adaptive Workflow Settings

Workflow Type: Personal Study Plan

Prescription Mastery Threshold: % (Default Prescription Threshold is 80%)

Personal Study Plan Workflow

- This adaptive workflow was designed to accompany summative assessments at the end of a Chapter or Unit, or to provide targeted students with review, intervention, and re-assessment opportunities.
- A Personal Study Plan will be assigned as intervention to students who do not meet the Prescription Threshold* set by the teacher for the pre-built assignment.
- Students will then receive a re-assessment after they complete the intervention.

***Note:** The Default Prescription Threshold is 80% but can be adjusted to meet your needs.

1

The screenshot shows the Teacher Dashboard with the 'Assignments' section highlighted. An inset window displays the following assignment details:

- Due: 01/14/2015**
- 3.9.C Quiz** (1/1 Completed ✓)
- Mr. Lesh's Third Grade Math Class
- Due: 01/14/2015**
- 3.9.E Quiz** (1/1 Completed ✓)
- Mr. Lesh's Third Grade Math Class
- Due: 01/14/2015**
- Standard 3.9.A** (1/1 Completed ✓)
- Mr. Lesh's Third Grade Math Class

Viewing Your PMT Assignments through the Teacher Dashboard

1. Locate the Assignments section on the Teacher Dashboard. The Assignments section provides a quick overview of student progress on most recent assignments. Click on **Assignments** to view the Assignments List.

2

Assignment List

Find assignments

Due Date: From: To:

Class: Subject: Student: Program:

Show only Automated Prescription capable tests Show only tests

Assignments

Soar to Success Assignment(s)

1 - 3 of 3 Records

Subject	Assignment	Due Date	Student Count	Status	Actions	Show Answers
Mathematics	3.9.C Quiz	01/14/15	1/1	Completed	Edit Delete Copy Results	YES
Mathematics	3.9.E Quiz	01/14/15	1/1	Completed	Edit Delete Copy Results	YES
Mathematics	Standard 3.9.A	01/14/15	1/1	Completed	Edit Delete Copy Results	YES

2. The **Assignment List** features resources that have been previously assigned to your students. From this page, you can edit, copy, or delete existing assignments. You can also view student results of completed assignments and see how individual students responded to specific questions.

V. CUSTOMIZING PMT ASSIGNMENTS

PMT Assignments can be modified or created from scratch through the Workflow Editor.

Note: Once a PMT Assignment has been modified, you can no longer assign it in Knewton Adaptive Mode.

1

Personal Math Trainer: Chapter 1 Mid-Chapter Checkpoint (Tests & Quizzes)

NL Go Math, Grade 2, Unit 1 : Number Sense and Place Value, Chapter 1 : Number Concepts, Lesson 5

A check point to monitor student understanding for a chapter

Standards: 2

Assign  Schedule 

2

Assign

Resource Option

[Personal Math Trainer: Chapter 1 Mid-Chapter Checkpoint \(Tests & Quizzes\)](#)

Do you want to **Modify** the resource before you assign it, or to **Add** it to an assignment directly?

Modify  Add

3

Workflow Editor — Book

Book Standard New Exercise

Book: Go Math! Personal Math Trainer, G3

Unit: Unit 1. Whole Number Operations

Chapter: 1. Addition and Subtraction Within 1,000

Lesson: 1.1. Number Patterns

Objective: N/A DOK: All

Exercises: List by

- 1.1.1 Share and Show Question
- 1.1.2 Share and Show Question
- 1.1.3 Share and Show Question
- 1.1.5 Share and Show Question
- 1.1.7 Share and Show Question
- 1.1.8 Problem Solving Question
- 1.1.9 Problem Solving Question

Assignment Title: Chapter 1 Mid-Chapter Checkpoint

Assignment Type: Tests and Quizzes

19 Exercises in Assignment

- 1.M.1 Mid-Chapter Checkpoint Question
- 1.M.2 Mid-Chapter Checkpoint Question
- 1.M.3 Mid-Chapter Checkpoint Question
- 1.M.4 Mid-Chapter Checkpoint Question
- 1.M.5 Mid-Chapter Checkpoint Question
- 1.M.6 Mid-Chapter Checkpoint Question
- 1.M.7 Mid-Chapter Checkpoint Question
- 1.M.8 Mid-Chapter Checkpoint Question
- 1.M.9 Mid-Chapter Checkpoint Question
- 1.M.10 Mid-Chapter Checkpoint Question
- 1.M.11 Mid-Chapter Checkpoint Question
- 1.M.12 Mid-Chapter Checkpoint Question
- 1.M.13 Mid-Chapter Checkpoint Question
- 1.M.14 Mid-Chapter Checkpoint Question

View Edit Preview

Workflow Editor — Book

Book Standard New Exercise

Book: Go Math! Personal Math Trainer, G3

Unit: Unit 1. Whole Number Operations

Chapter: 1. Addition and Subtraction Within 1,000

Lesson: 1.1. Number Patterns

Objective: N/A DOK: All

Exercises: List by

- 1.1.1 Share and Show Question
- 1.1.2 Share and Show Question
- 1.1.3 Share and Show Question
- 1.1.5 Share and Show Question
- 1.1.7 Share and Show Question
- 1.1.8 Problem Solving Question
- 1.1.9 Problem Solving Question

Assignment Title: Chapter 1 Mid-Chapter Checkpoint

Assignment Type: Tests and Quizzes

19 Exercises in Assignment

- 1.M.1 Mid-Chapter Checkpoint Question
- 1.M.2 Mid-Chapter Checkpoint Question
- 1.M.3 Mid-Chapter Checkpoint Question
- 1.M.4 Mid-Chapter Checkpoint Question
- 1.M.5 Mid-Chapter Checkpoint Question
- 1.M.6 Mid-Chapter Checkpoint Question
- 1.M.7 Mid-Chapter Checkpoint Question
- 1.M.8 Mid-Chapter Checkpoint Question
- 1.M.9 Mid-Chapter Checkpoint Question
- 1.M.10 Mid-Chapter Checkpoint Question
- 1.M.11 Mid-Chapter Checkpoint Question
- 1.M.12 Mid-Chapter Checkpoint Question
- 1.M.13 Mid-Chapter Checkpoint Question
- 1.M.14 Mid-Chapter Checkpoint Question

View Edit Preview

Pathway to Modify a Pre-Built PMT Assignment

1. Locate a PMT resource and click on **Assign** (See **Section IV. Assigning the PMT** for more information.)
2. Select **Modify** to edit the PMT resource before you assign it.
3. Use the Workflow Editor to edit the PMT Assignment. (See the next section for more details.)

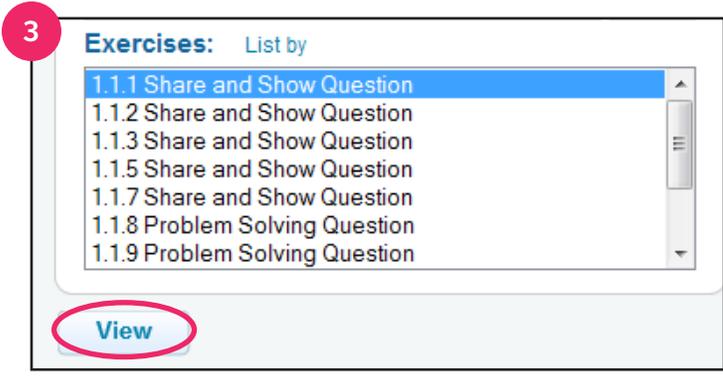
The left side of the Workflow Editor contains the entire bank of PMT content available for your program.

The right side of the Workflow Editor contains details of the PMT assignment you are customizing.

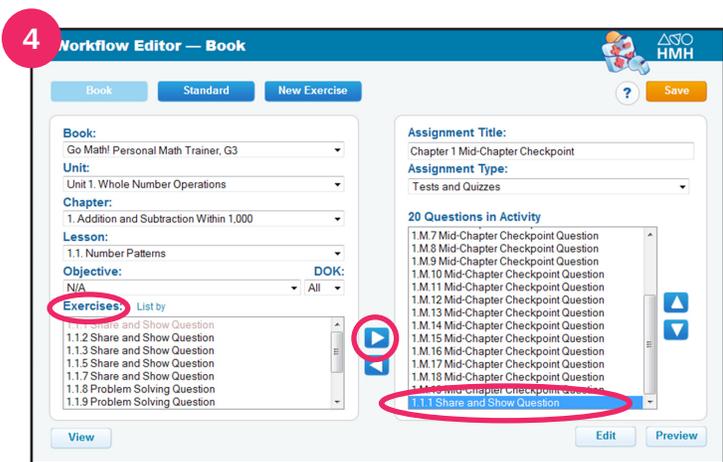
Using the Workflow Editor

Editing by Book.

1. Select a **Book** from the drop-down menu.
2. Select the appropriate **Unit**, **Chapter**, and **Lesson** from the drop-down menus.

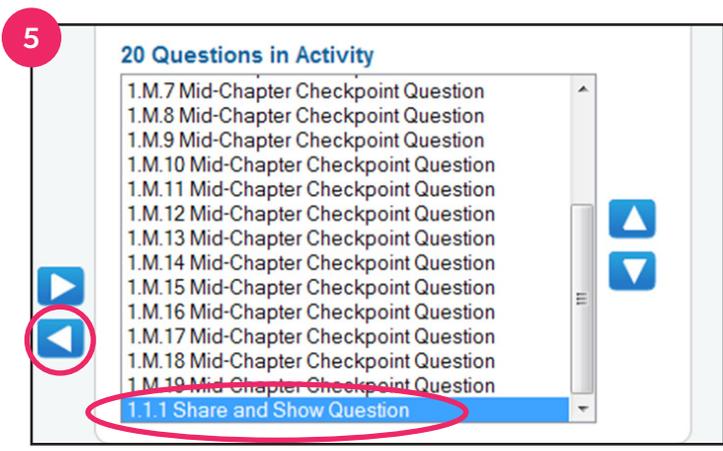


3. To preview a specific exercise, select a question from the **Exercises** list and click on **View**.

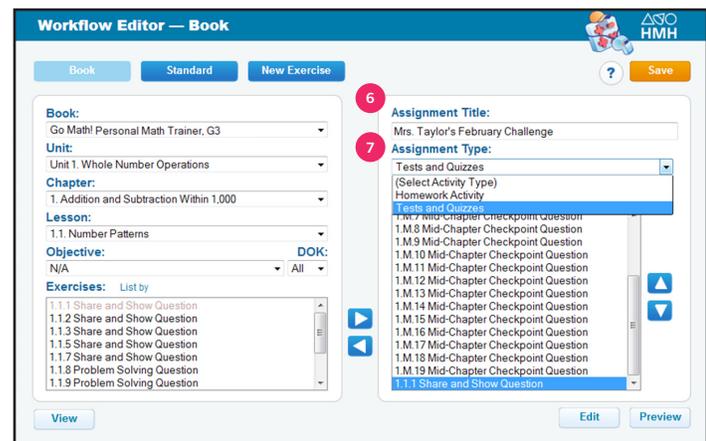


4. To add pre-built questions to the current assignment, select a specific question from the **Exercises** list and then click on the right arrow.

Note: The question will move from the **Exercises** list to the **Questions in Activity** list.

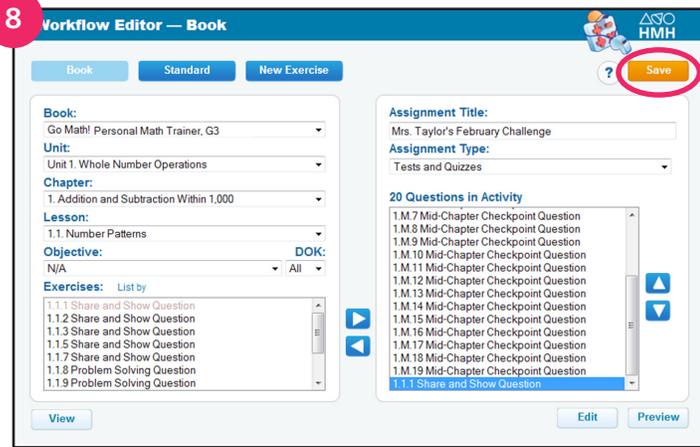


5. To remove existing questions, select a specific exercise from the **Questions in Activity** list and click on the left arrow.

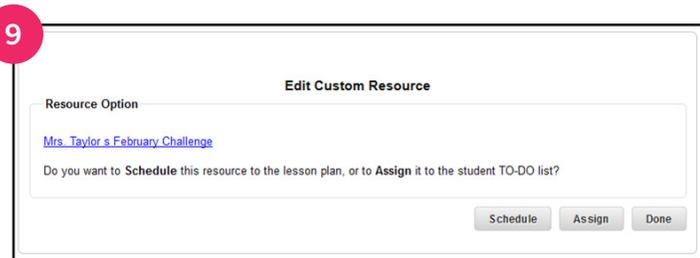


6. To customize the **Assignment Title**, simply type in a new name in the **Assignment Title** field.

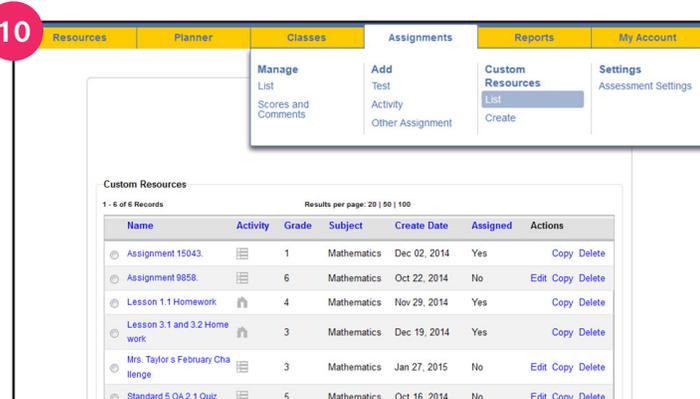
7. To customize the **Assignment Type**, use the **Assignment Type** drop-down menu.



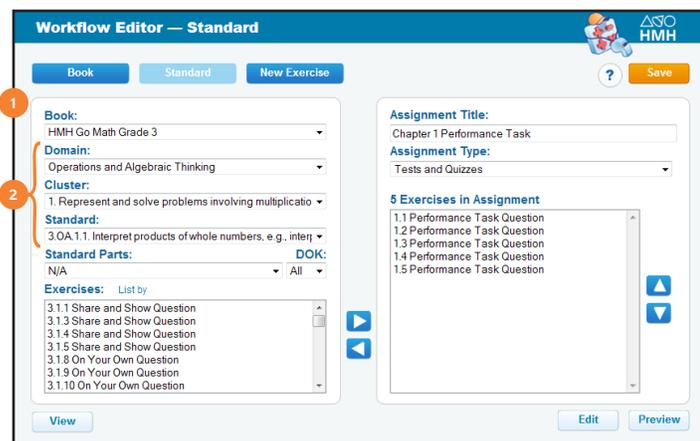
8. Click on **Save** at the top of the page.



9. After saving your modified assignment, you have the option to **Schedule** the resource to a lesson plan or **Assign** it to the student TO-DO list.



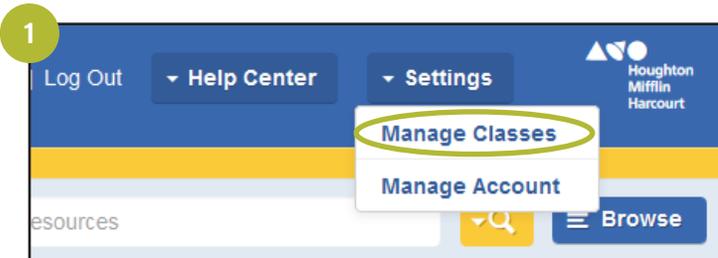
10. You can view your modified PMT assignments at any time by clicking on the Assignments tab and clicking on **List** (under Custom Resources).



Using the Workflow Editor

Editing by Standard.

1. Select a **Book** from the drop-down menu.
2. Select the appropriate **Domain**, **Cluster**, and **Standard** from the drop-down menus.
3. Follow steps 3–10 from the previous section.

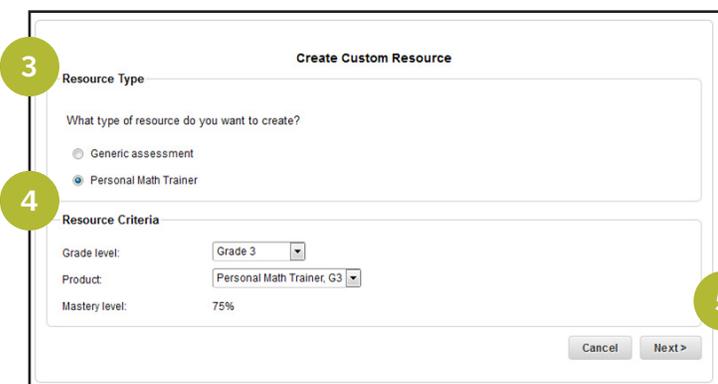


Pathway to Create a New PMT Assignment

1. Locate Settings on the Teacher Dashboard and click on **Manage Classes**.



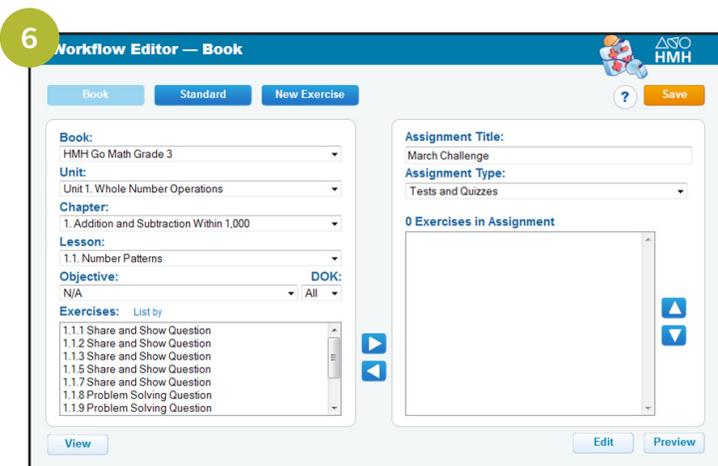
2. To create a new PMT assignment from scratch, click on the Assignments tab and click on **Create** (under Custom Resources).



3. Under **Resource Type**, select **Personal Math Trainer**.

4. Under **Resource Criteria**, select the appropriate Grade Level from the drop-down list, then select Personal Math Trainer from the Product drop-down list.

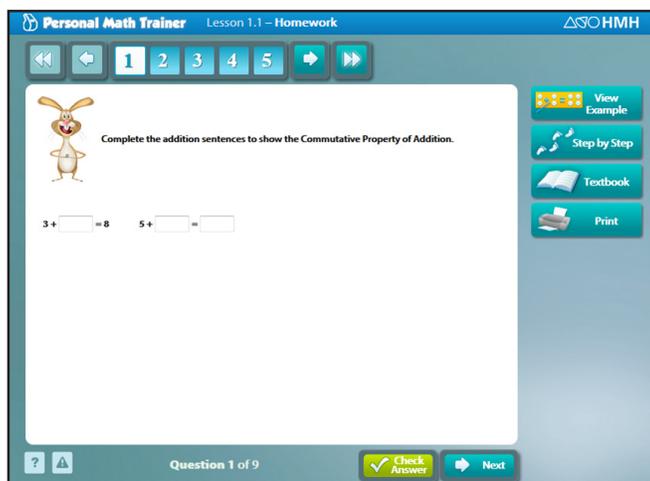
5. Click on **Next** at the bottom of the page.



6. Use the **Workflow Editor** to edit the PMT Assignment. (See previous section for more details on using the Workflow Editor.)

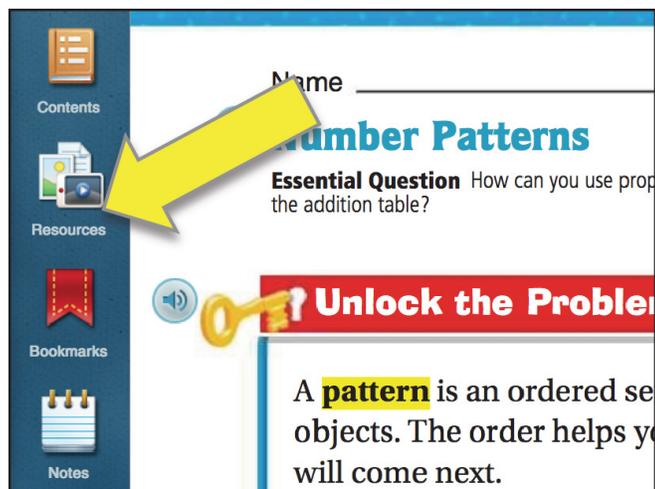
VI. STUDENTS ACCESSING THE PMT

Students can access the PMT from the Student Dashboard in three different ways.



PMT Homework or Assessments (Test and Quizzes)

- Assigned by teacher in either non-adaptive or Knewton adaptive mode.
- Accessed in **Things to Do**.



Student Edition eBook

- In the Class Settings, the Student Edition eBook must be selected as a freeplay resource for inclusion in the student library. Students can then click on the eBook in *My Library*.
- Once inside the eBook, students access the PMT via the **Resources** icon while on a lesson page. The PMT is in **Practice Mode** and will only be scored for the student. Data will not be collected (see page 3).



Interactive Student Edition (ISE)

- In order to collect data, ISE lessons must be assigned to students by the teacher.
- Accessed by students in **Things to Do**.
- PMT is linked to the Elaborate and Evaluate sections of the ISE (orange and red bread crumbs).

Note: Students must click on the orange and red whistles to open the PMT.

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