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**Direct Instruction Lesson Plan Template**

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**Common Core State Standards:**
- •

**Objective (Explicit):**
- •

**Evidence of Mastery (Measurable):**
- Include a copy of the lesson assessment.
- Provide exemplar student responses with the level of detail you expect to see.
- Assign value to each portion of the response.

**Sub-objectives, SWBAT (Sequenced from basic to complex):**
- □ How will you review past learning and make connections to previous lessons?
- □ What skills and content are needed to ultimately master this lesson objective?
- □ How is this objective relevant to students, their lives, and/or the real world?

**Key vocabulary:**

**Materials:**

**Opening (state objectives, connect to previous learning, and make relevant to real life)**
- □ How will you activate student interest?
- □ How will you connect to past learning?
- □ How will you present the objective in an engaging and student-friendly way?
- □ How will you communicate its importance and make the content relevant to your students?

**Teacher Will:**
- □ How will you model/explain/demonstrate all knowledge/skills required of the objective?
- □ What types of visuals will you use?
- □ How will you address misunderstandings or common student errors?
- □ How will you check for understanding?
- □ How will you explain and model behavioral expectations?
- □ Is there enough detail in this section so that another person could teach it?

**Student Will:**
- □ What will students be doing to actively capture and process the new material?
- □ How will students be engaged?

**Co-Teaching Strategy**
- □ Which co-teaching approach will you use to maximize student achievement?

**Differentiation Strategy**
- □ What accommodations/modifications will you include for specific students?
- □ Do you anticipate any students who will need an additional challenge?
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| □ Do you anticipate any students who will need an additional challenge? | |
| □ How can you utilize grouping strategies? | |

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| Co-Teaching Strategy | |
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| Differentiation Strategy | |
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| Closing/Student Reflection/Real-life connections: | |
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| □ How will students summarize and state the significance of what they learned? | |
| □ Why will students be engaged? | |
## Kindergarten Reading Lesson- Before

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### Common Core State Standards:
- K.RL.2: With prompting and support, retell familiar stories, including key details.

### Objective (Explicit):
- With guidance and support, the student will be able to retell a story from a book.

### Evidence of Mastery (Measurable):
- Include a copy of the lesson assessment.
- Provide exemplar student responses with the level of detail you expect to see.
- Assign value to each portion of the response

### Assessment:
The student will verbally retell what happened in the story Sam and Nan. Then, the student will explain how he/she was able to remember what happened in the story, and what he/she thought about it (i.e. like it or disliked it, thought it was interesting/uninteresting, and why).

### Evidence of Mastery:
The student will retell the events from the story in order.

- **Beginning** – Nan cannot see and Sam can see.
- **Middle** – Sam helps Nan walk around town.
- **End** – Nan pats Sam, and they become friends.

The students are able to describe the questions they asked themselves to recall what happened in the different parts of the story.

In response to questions from the teacher, student should also be able to share how they felt about the story, and why.

### Sub-objectives, SWBAT (Sequenced from basic to complex):

1. A story tells about something that happened. Sometimes that thing is real, and sometimes it is made-up. We can tell stories about things that happened to us or people we know, or we can read made-up stories in books.
   - What happened at the beginning?
   - What happened in the middle?
   - What happened at the end of the story?

2. To retell a story we remember what we read. We do this by asking ourselves these questions
   - What happened at the beginning?
   - What happened in the middle?
   - What happened at the end of the story?

3. People retell stories to share what they read with others.

### Key vocabulary:
- Beginning
- Middle
- End
- Retell

### Materials:
- Easel with a large paper divided into three parts labeled; beginning, middle, end
- Beginning, Middle, and End Worksheet

### Opening (state objectives, connect to previous learning, and make relevant to real life)

- **ASK:** "Have you ever read a really great book and wanted to tell someone about it? If so, put your hands on your shoulders!" *(Model what I mean by putting hands on shoulders)*
- Call on 1-2 students to share examples of stories they enjoyed.
This is called retelling a story. Discuss the definition of story. Elicit from students that a story tells about something that happened, and it can be real or made-up. Real-life stories are things that happened to us or people we know. Made-up stories are often found in books we enjoy.

"Today we are going to learn how to retell stories so that we can share what we read with someone else!"

Retelling a story means remembering what happened in it, and being able to describe it to another person. Ask: Why is it important to be able to re-tell a story? (It shows us that we understood the story; it allows us to share the story with another person)

Before we learn how to re-tell stories, there are three words that we need to think about. They are "beginning, middle, and end"

- Ask: What does the word “beginning” mean? (How something starts, the first things that happen)
- Ask: What does the word “end” mean? (How something finishes, the last things that happen)
- Ask: So, if the beginning is how a story STARTS, and the ending is how a story FINISHES, what is the MIDDLE? (What happens in between the middle and end)

Great! Let's use what we know about beginning, middle, and end to re-tell a story!

There is a special thing we can do to help us retell stories. We ask ourselves four special questions to help us remember what we just read:

- What happened at the beginning of the story?
- What happened in the middle?
- What happened at the end of the story?
- How did I like the story?

Introduce Dive In The Ocean by Ryan Fadus. Preview book with students: Ask them to examine front cover and illustrations, predict what the book will be about, and make personal connections (i.e. What does ____ remind you of?).

Read Dive In The Ocean. After the read-aloud, pause to discuss students’ reactions to the book (What did you think? Did you like it or dislike it? Why?).

Turn to the easel page with a large paper divided into three parts labeled: beginning, middle, end. Tell students that we are going to work together to...
retell the story. **ASK:** What questions do we ask ourselves to help retell a story? Discuss each question. Call on students to suggest ideas for pictures that we can draw to represent each part of the story. Draw them on the chart paper on the easel.

### Co-Teaching Strategy
- Which co-teaching approach will you use to maximize student achievement?

**Parallel teaching:** In order to make group sizes smaller and more intimate (so that more students can share during discussion), the teachers will divide the class in half and teach the same lesson to half the class in different parts of the classroom.

### Differentiation Strategy
- What accommodations/modifications will you include for specific students?
- Do you anticipate any students who will need an additional challenge?

For students who are not able to remember what happened in a particular part of the story, I will model the reading strategy of re-reading so that we can remind ourselves what happened (“I don’t remember, so I’m going to go back in the book and remind myself what happened after…”).

### Teacher Will:
- How will you ensure that all students have multiple opportunities to practice new content and skills?
- What types of questions can you ask students as you are observing them practice?
- How/when will you check for understanding?
- How will you provide guidance to all students as they practice?
- How will you explain and model behavioral expectations?
- Is there enough detail in this section so that another person could facilitate this practice?

### Student Will:
- How will students practice all knowledge/skills required of the objective, with your support, such that they continue to internalize the sub-objectives?
- How will students be engaged?
- How will you elicit student-to-student interaction?
- How are students practicing in ways that align to independent practice?

**Guided Practice**

Tell students that we are going to practice retelling another story, except this time they are going to create their own drawings for beginning, middle, and end.

Introduce and read *Where Do Pigs Live* by Chi Winwood. Check for eyes to be on the book as I read.

- Preview book with students: Ask them to examine front cover and illustrations, predict what the book will be about, and make personal connections.

Check for understanding: **ASK** – What are the questions I ask myself to help retell a story?
- What happened at the beginning of the story?
- What happened in the middle?
- What happened at the end of the story?
- How did I like the story?

Students share predictions, impressions, and personal connections.

Check for understanding by asking students to provide these.

Students take turns sharing responses to the story. Students respond to one another’s comments using our sentence stems for discussion (*I agree with ___ because…*).
Read the story aloud with students. Pause at different points to remind students to ask themselves which part of the story we are in, and what is happening (ask them to do this in their heads). After the story is over, discuss reactions and impressions.

Send students back to seats and distribute beginning, middle, and end worksheet.

Work through guiding questions: for each question, students have 30 seconds to discuss in their table groups and 3 minutes to draw a picture that represents that part of the story. After each question, CFU by calling on different groups to share what happened in each part of the story.

Different students will share out responses.

As students are drawing, circulate and ask probing questions: Why are you drawing that? How does this picture show what happened at the middle/end?

Co-Teaching Strategy

- Which co-teaching approach will you use to maximize student achievement?

Parallel teaching will continue during guided practice. Depending on student interests, the two teachers may follow the same sequence of activities using different books.

Differentiation Strategy

- What accommodations/modifications will you include for specific students?
- Do you anticipate any students who will need an additional challenge?
- How can you utilize grouping strategies?

Teacher Will:

- How will you plan to coach and correct during this practice?
- How will you provide opportunities for remediation and extension?
- How will you clearly state and model academic and behavioral expectations?
- Did you provide enough detail so that another person could facilitate the practice?

Student Will:

- How will students independently practice the knowledge and skills required by the objective?
- How will students be engaged?
- How are students practicing in ways that align to assessment?
- How are students using self-assessment to guide their own learning?
- How are you supporting students giving feedback to one another?

Tell the students that we are going to read just one more story. After we finish, you are going to re-tell the story on your own!

Final check for understanding: ASK – What questions are we going to ask ourselves to help us retell the story once we’re finished?

Introduce and read Sam and Nan.

One at a time I will call students to come back and meet me at the horseshoe table. I will ask them to verbally tell me what happened in the story Nan and Sam. Then I will ask them how they remembered what happened in the story, and how they liked it.

While only one student at a time is completing the assessment with me, the other students can select a quiet activity from the choice board.

The student will verbally retell what happened in the story Sam and Nan. Then, the student will answer how he/she was able to remember what happened in the story. Finally, students will tell me how they felt about the story, and why.

Students working quietly on activities from the choice board during assessment.
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<td>Both teachers will be simultaneously assessing students in different parts of the classroom.</td>
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For students who are struggling, the teacher can prompt them with the guiding questions:
- What happened at the beginning of the story?
- What happened in the middle?
- What happened at the end of the story?
- How did I like the story?

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Engage in a class discussion:
- Of the three stories we read today, which one did you like the best, and why?
- How do we retell stories?
- Why is it important to know how to re-tell a story?
Kindergarten Reading Lesson Plan Worksheet

1) What is the lesson objective?

2) What lesson activities am I using to teach the objective?

3) How could movement or physical activity be integrated?

4) What are the management considerations?
## Kindergarten Reading Lesson - After

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### Common Core State Standards:
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### Objective (Explicit):
- With guidance and support, the student will be able to retell a story from a book.

### Evidence of Mastery (Measurable):
- Include a copy of the lesson assessment.
- Provide exemplar student responses with the level of detail you expect to see.
- Assign value to each portion of the response

### Assessment:
The student will verbally retell what happened in the story *Sam and Nan*. Then, the student will explain how he/she was able to remember what happened in the story, and what he/she thought about it (i.e. like it or disliked it, thought it was interesting/uninteresting, and why).

### Evidence of Mastery:
*The student will retell the events from the story in order.*

Beginning – Nan cannot see and Sam can see.
Middle – Sam helps Nan walk around town.
End – Nan pats Sam, and they become friends.

The students are able to describe the questions they asked themselves to recall what happened in the different parts of the story.

In response to questions from the teacher, student should also be able to share how they felt about the story, and why.

### Sub-objectives, SWBAT (Sequenced from basic to complex):
- How will you review past learning and make connections to previous lessons?
- What skills and content are needed to ultimately master this lesson objective?
- How is this objective relevant to students, their lives, and/or the real world?

1. A story tells about something that happened. Sometimes that thing is real, and sometimes it is made-up. We can tell stories about things that happened to us or people we know, or we can read made-up stories in books.
2. To retell a story we remember what we read. We do this by asking ourselves these questions
   - What happened at the beginning?
   - What happened in the middle?
   - What happened at the end of the story?
3. People retell stories to share what they read with others.

### Key vocabulary:
- Beginning
- Middle
- End
- Retell

### Materials:
- Easel with a large paper divided into three parts labeled; beginning, middle, end
- Beginning, Middle, and End Worksheet

### Opening (state objectives, connect to previous learning, and make relevant to real life):
- How will you activate student interest?
- How will you connect to past learning?
- How will you present the objective in an engaging and student-friendly way?
- How will you communicate its importance and make the content relevant to your students?
- **ASK:** “Have you ever read a really great book and wanted to tell someone about it? If so, put your hands on your shoulders!” (Model what I mean by putting hands on shoulders)

- Call on 1-2 students to share examples of stories they enjoyed.

- This is called retelling a story. *(Discuss definition of story. Elicit from students that a story tells about something that happened, and it can be real or made-up. Real-life stories are things that happened to us or people we know. Made-up stories are often found in books we enjoy.)*

- “Today we are going to learn how to retell stories so that we can share what we read with someone else!”

- Retelling a story means remembering what happened in it, and being able to describe it to another person. **ASK:** Why is it important to be able to re-tell a story? *(It shows us that we understood the story; it allows us to share the story with another person)*

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**Teacher Will:**
- How will you model/explain/demonstrate all knowledge/skills required of the objective?
- What types of visuals will you use?
- How will you address misunderstandings or common student errors?
- How will you check for understanding?
- How will you explain and model behavioral expectations?
- Is there enough detail in this section so that another person could teach it?

**Student Will:**
- What will students be doing to actively capture and process the new material?
- How will students be engaged?

---

**Before we learn how to re-tell stories, there are three words that we need to think about. They are “beginning, middle, and end”**

**-ASK:** What does the word “beginning” mean? *(How something starts, the first things that happen)*

**-ASK:** What does the word “end” mean? *(How something finishes, the last things that happen)*

**-ASK:** So, if the beginning is how a story STARTS, and the ending is how a story FINISHES, what is the MIDDLE? *(What happens in between the middle and end)*

Let’s create a movement to remind us what each part of the story is! For the **beginning** we are going to crouch down on the ground and hug our knees. The story is just getting started, and hasn’t really “taken off” yet. Let’s practice.

**When I say go,** stand up *[wait for students to stand]*. When I say “beginning,” duck down and hug your knees *[Model movement, then cue students]*.

The **middle** of the story is a little bit farther along, and is where most of the action happens. When I say “middle” I want you to bend your knees and squat like you’re about to sit in a chair *[teacher models movement]*. When I say “middle”, get in the ready stance.

By the time we reach the **end**, the story is finished. When I say “end” I want you to jump in place as high as you can to show that the story can’t go any
farther! [Teacher models movement]. When I say “end,” jump in place!

Great! Now let’s use what we know about beginning, middle, and end to re-tell a story!

There is a special thing we can do to help us retell stories. We ask ourselves four special questions to help us remember what we just read:
- What happened at the beginning of the story?
- What happened in the middle?
- What happened at the end of the story?
- How did I like the story?

After each guiding question, the teacher asks students to make the movement that we use to show that part of the story, and then hold that position until the next movement is signaled.

Have students sit back down on the carpet, criss-cross applesauce. Introduce Dive In The Ocean by Ryan Fadus. Preview book with students: Ask them to examine front cover and illustrations, predict what the book will be about, and make personal connections (i.e. What does _____ remind you of?).

Read Dive In The Ocean. After the read-aloud, pause to discuss students’ reactions to the book (What did you think? Did you like it or dislike it? Why?).

Tell students that we are going to work together to re-tell the story. Cue students to stand up [When I say go...]. Call on different students to remind the class of the guiding questions. Whenever a student says one of the magic words (beginning, middle, end), the class makes the movement.

Turn to the easel page with a large paper divided into three parts labeled: beginning, middle, end. Tell students that we are going to work together to retell the story. **ASK:** What questions do we ask ourselves to help retell a story? Discuss each question. Call on students to suggest ideas for pictures that we can draw to represent each part of the story. Draw them on the chart paper on the easel.

**Co-Teaching Strategy**
- Which co-teaching approach will you use to maximize student achievement?

Parallel teaching: In order to make group sizes smaller and more intimate (so that more students can share during discussion), the teachers will divide the class in half and teach the same lesson to half the class in different parts of the classroom.
### Differentiation Strategy

- What accommodations/modifications will you include for specific students?
- Do you anticipate any students who will need an additional challenge?

For students who are not able to remember what happened in a particular part of the story, I will model the reading strategy of re-reading so that we can remind ourselves what happened. ("I don't remember, so I'm going to go back in the book and remind myself what happened after...")

Physical activity: Prior to cueing students for physical activity, make sure that students are all standing at least one arm's length apart from one another and that all chairs are pushed into tables. For students who cannot perform the movement due to a physical disability, offer an alternative (i.e. shaking their arms at their sides for "beginning," raising them parallel to the ground for "middle", and raising them toward the ceiling for "end").

### Teacher Will:

- How will you ensure that all students have multiple opportunities to practice new content and skills?
- What types of questions can you ask students as you are observing them practice?
- How/when will you check for understanding?
- How will you provide guidance to all students as they practice?
- How will you explain and model behavioral expectations?
- Is there enough detail in this section so that another person could facilitate this practice?

### Student Will:

- How will students practice all knowledge/skills required of the objective, with your support, such that they continue to internalize the sub-objectives?
- How will students be engaged?
- How will you elicit student-to-student interaction?
- How are students practicing in ways that align to independent practice?

### Guided Practice

Tell students that we are going to practice retelling another story, except this time they are going to create their own drawings for beginning, middle, and end.

Introduce and read *Where Do Pigs Live* by Chi Winwood. Check for eyes to be on the book as I read.

- Preview book with students: Ask them to examine front cover and illustrations, predict what the book will be about, and make personal connections.

Check for understanding: **ASK** – What are the questions I ask myself to help retell a story?
- What happened at the beginning of the story?
- What happened in the middle?
- What happened at the end of the story?
- How did I like the story?

Read the story aloud with students. Pause at different points to remind students to ask themselves which part of the story we are in, and what is happening (ask them to do this in their heads). After the story is over, discuss reactions and impressions.

Send students back to seats and distribute beginning, middle, and end worksheet.

Work through guiding questions: for each question, students have 30 seconds to discuss in their table groups and 3 minutes to draw a picture that

Students share predictions, impressions, and personal connections.

Check for understanding by asking students to provide these. Once again, during the check for understanding students make the movements associated with that part of the story.

Students take turns sharing responses to the story. Students respond to one another's comments using our sentence stems for discussion (*I agree with ___ because…*).
represents that part of the story. After each question, CFU by calling on different groups to share what happened in each part of the story. Now tell the students: We are going to practice our understanding of beginning, middle, and end. Everyone stand up! I am going to name an event from part of the story, and then I want you to make the movement that shows me which part of the story it happened in (Call on student to remind class which movement is associated with which part of the story).

Name 3-5 different events from the story and ask students to make corresponding movement. This will serve as a check for understanding. After each example, call on different students to show their thinking by asking questions like “Why did you jump? Why did you crouch? Why did you squat down like you’re sitting in a chair?”

Send students back to seats and distribute beginning, middle, and end worksheet. Students have _____ minutes to draw a picture to represent each part of the story. Ask students to share out their drawings.

**Co-Teaching Strategy**
- Which co-teaching approach will you use to maximize student achievement?

Parallel teaching will continue during guided practice. Depending on student interests, the two teachers may follow the same sequence of activities using different books.

**Differentiation Strategy**
- What accommodations/modifications will you include for specific students?
- Do you anticipate any students who will need an additional challenge?
- How can you utilize grouping strategies?

**Teacher Will:**
- How will you plan to coach and correct during this practice?
- How will you provide opportunities for remediation and extension?
- How will you clearly state and model academic and behavioral expectations?
- Did you provide enough detail so that another person could facilitate the practice?

**Student Will:**
- How will students independently practice the knowledge and skills required by the objective?
- How will students be engaged?
- How are students practicing in ways that align to assessment?
- How are students using self-assessment to guide their own learning?
- How are you supporting students giving feedback to one another?

Tell the students that we are going to read just one more story. After we finish, you are going to re-tell the story on your own!

Final check for understanding: **ASK** – What questions are we going to ask ourselves to help us retell the story once we’re finished? Students make the movements one final time.

Introduce and read *Sam and Nan*

The student will verbally retell what happened in the story *Sam and Nan*. Then, the student will answer how he/she was able to remember what happened in the
One at a time I will call students to come back and meet me at the horseshoe table. I will ask them to verbally tell me what happened in the story Nan and Sam. Then I will ask them how they remembered what happened in the story, and how they liked it.

While only one student at a time is completing the assessment with me, the other students can select a quiet activity from the choice board.

Students working quietly on activities from the choice board during assessment.

Co-Teaching Strategy
- Which co-teaching approach will you use to maximize student achievement?

Both teachers will be simultaneously assessing students in different parts of the classroom.

Differentiation Strategy
- What accommodations/modifications will you include for specific students?
- Do you anticipate any students who will need an additional challenge?

For students who are struggling, the teacher can prompt them with the guiding questions:
  - What happened at the beginning of the story?
  - What happened in the middle?
  - What happened at the end of the story?
  - How did I like the story?

Closing/Student Reflection/Real-life connections:
- How will students summarize and state the significance of what they learned?
- Why will students be engaged?

Engage in a class discussion:
  - Of the three stories we read today, which one did you like the best, and why?
  - How do we retell stories?

Why is it important to know how to re-tell a story?
Sixth Grade Math Lesson Plan - Before

Teachers: [Teacher Name]

Subject: 6th grade math – beginning algebra

Common Core State Standards:
• 6.EE.3-Expressions and Equations

Objective (Explicit):
• SWBAT factor simple monomial expressions

Evidence of Mastery (Measurable):
☐ Include a copy of the lesson assessment.
☐ Provide exemplar student responses with the level of detail you expect to see.
☐ Assign value to each portion of the response

End-of-Lesson Exit Ticket: Students will factor 5 simple monomial expressions.

1. 3x + 18 Answer: 3(x + 6)
2. 2x + 12 Answer: 2(x + 6)
3. 35x + 15 Answer: 5(7x + 3)
4. 7x + 21 Answer: 7(x + 3)
5. 8x + 20 Answer: 4(2x + 5)

Sub-objectives, SWBAT (Sequenced from basic to complex):
☐ How will you review past learning and make connections to previous lessons?
☐ What skills and content are needed to ultimately master this lesson objective?
☐ How is this objective relevant to students, their lives, and/or the real world?

Background Information Sub-Objectives
• Working with algebraic expressions (like monomials and polynomials) is a critical skill for all higher-level math classes.
• When working with algebraic expressions, sometimes we need to distribute and sometimes we need to factor.
• Factoring (taking numbers) is the opposite of distributing (giving numbers).

Process Sub-Objectives
• To factor a monomial expression:
  1. Determine both the whole number and the coefficient.
  2. Find the Greatest Common Factor (GCF) of the whole number and the coefficient.
     a) List all factors for each number (i.e., all whole numbers that can be divided equally into each of the numbers).
     b) Identify all factors the whole number and the coefficient have in common.
     c) Identify the biggest number on both lists – this is the Greatest Common Factor.
  3. Divide both the whole number and the coefficient by the GCF.
  4. Write the factored expression in parentheses, with the GCF on the outside.
  5. Check your work by doing the opposite – by distributing the GCF.

Key vocabulary:
Monomials
Polynomials
Factoring
GCF

Materials:
Exit tickets, whiteboards

Opening (state objectives, connect to previous learning, and make relevant to real life)
☐ How will you activate student interest?
☐ How will you connect to past learning?
☐ How will you present the objective in an engaging and student-friendly way?
☐ How will you communicate its importance and make the content relevant to your students?

Do Now (4 min)
Students will independently distribute 3 simple monomial expressions as a review from a previous lesson:
Review the answer to #1 by asking the following questions:
- What did we just do with this monomial expression? Distributed
- What number did we distribute in this expression? the 4
- What did we do to distribute this expression? multiplied both the 2x and the 3 by 4
- What is our answer? 8x + 12

Review answers for #2 and #3 – only ask series of questions if necessary. Answers: 7x + 28 and 10x + 2

Introduce Lesson (1 min.)
When working with algebraic expressions like these, sometimes we need to distribute – we already know how to do this. Sometimes we need to take the opposite action – we need to factor.
- Objective: SWBAT factor simple monomial expressions.
- Agenda
  - We work through examples together to learn the process.
  - You practice the process in teams by doing the “The Amazing Math Race.”
  - You show me what you have learned on your exit tickets.

### Teacher Will:
- How will you model/explain/demonstrate all knowledge/skills required of the objective?
- What types of visuals will you use?
- How will you address misunderstandings or common student errors?
- How will you check for understanding?
- How will you explain and model behavioral expectations?
- Is there enough detail in this section so that another person could teach it?

### Student Will:
- What will students be doing to actively capture and process the new material?
- How will students be engaged?

### Background Information Sub-Objectives (2 min.)
- We know that distributing means giving a number to all parts of the expression. In #1 from the Do Now, we gave the number 4 to both the 2x and the 3.
- Factoring is the opposite of distributing – this means we’re going to be taking a number from all parts of the expression.
- So if we look at #1 from the Do Now again:
  - We gave the number 4 to all parts of the expression to distribute it. And we ended up with 8x + 12.
  - What do you think we will do to factor this new expression? Take the number 4 away from all parts of the expression.

### Process Sub-Objective #1 (1 min.)
- We’re going to learn how to factor expressions using this same example: 8x + 12.
- **Step One:** Determine both the whole number and the coefficient.
  - What’s the whole number in this expression? 12
  - What’s the coefficient? 8
Process Sub-Objective #2 (5 min.)

- **Step Two:** Find the Greatest Common Factor (GCF).
  - a) List all factors for each number (i.e., all whole numbers that can be divided equally into each number).
  - b) Identify all factors the whole number and the coefficient have in common.
  - c) Identify the biggest number on both lists – this is the Greatest Common Factor.

- Model this process using the example expression: $8x + 12$.

- Finding the GCF is a really critical step – if we go wrong here, we’ll get the whole problem wrong. Let’s make sure we’re all very clear on how to do this by practicing with a few more expressions:
  1. $6x + 15$
  2. $14x + 28$
  3. $5x + 20$

- **Expression #1**
  - What is the coefficient? 6
  - What are the factors of 6? (1,6) (2,3)
  - What is the whole number? 15
  - What are the factors of 15? (1,15) (3,5)
  - What are the common numbers? 1 and 3
  - What is the GCF? 3

- Work through #2 and #3 (with the same question sequence if necessary). Answers: #2 GCF = 14, #3 GCF = 5

Process Sub-Objective #3 (1 min.)

- **Step Three:** Divide both the whole number and the coefficient by the GCF.
  - Let’s go back to our first example: $8x + 12$
  - I’ve already identified that the GCF is 4. Now I divide both numbers by the GCF and I get $2x + 3$.
    - This is what I meant by saying that factoring means taking – we just took the 4 away from this expression.

In rapid-fire fashion, call on several different students to answer the CFU questions.

Process Sub-Objective #4 (1 min.)

- **Step Four:** Write the factored expression in parentheses with the GCF outside.
  - I put the $2x + 3$ in parentheses, with the 4 on the outside: $4(2x + 3)$

Process Sub-Objective #5 (1 min.)

- **Step Five:** Check your work by doing the

In rapid-fire fashion, call on several different students to answer the CFU questions.

Students will be writing each example down in their math notebook.
opposite of factoring (distribute the GCF).
  - Why do I do this? What does factoring mean? *Taking*
  - And what does distributing mean? *Giving*
  - 4 times 2x = 8x and 4 times 3 = 12
    - this gives me 8x + 12
  - That's right where I started!

### Review Process Sub-Objectives #3-#5 (4 min.)
- Let's make sure we've got Steps 3-5 down before putting them all together. We'll use the 3 examples for which we found the GCF earlier:
  1. 6x + 15 (GCF = 3)
  2. 14x + 28 (GCF = 14)
  3. 5x + 20 (GCF = 5)

### Example #1
- I have the GCF. What do I do next?  
  - Step 3 – divide both the whole number and the coefficient by the GCF
  - What is 6x divided by 3? 2x
  - What is 15 divided by 3? 5
  - So what do I have? 2x + 5
  - What do I do to finish this factored expression? *Step 4 – write the factored expression in parentheses with the GCF on the outside*
  - So what's my factored expression? 3(2x + 5)
  - What do I do to check my work? *Step 5 – distribute the GCF*
  - How do I distribute? multiply both parts of the expression by 3
  - If I do that, what do I get? 6x + 15
  - Is that correct? Yes

### Work through #2 and #3 (using the same question sequence if necessary). *Answers: #2 14(x + 2) #3 5(x + 4)*

### Review ALL Process Sub-Objectives (3 min.)
- O.K. – before we move on the Amazing Math Race, let's be sure we can put all the steps together for two examples.
  1. 12x + 24
  2. 9x + 12

### Co-Teaching Strategy
- Which co-teaching approach will you use to maximize student achievement?

Co-teaching. The two teachers will take turns modeling different example problems while the other teacher circulates and offers students individual assistance as needed.
**Differentiation Strategy**
- What accommodations/modifications will you include for specific students?
- Do you anticipate any students who will need an additional challenge?

For some of our students who have difficulty with writing, we will provide a sheet of notes with the example problems pre-written. The students can then paste this directly into their math notebook.

<table>
<thead>
<tr>
<th>Teacher Will:</th>
<th>Student Will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will you ensure that all students have multiple opportunities to practice new content and skills?</td>
<td>How will students practice all knowledge/skills required of the objective, with your support, such that they continue to internalize the sub-objectives?</td>
</tr>
<tr>
<td>What types of questions can you ask students as you are observing them practice?</td>
<td>How will students be engaged?</td>
</tr>
<tr>
<td>How will you check for understanding?</td>
<td>How will you elicit student-to-student interaction?</td>
</tr>
<tr>
<td>How will you provide guidance to all students as they practice?</td>
<td>How are students practicing in ways that align to independent practice?</td>
</tr>
<tr>
<td>How will you explain and model behavioral expectations?</td>
<td>Is there enough detail in this section so that another person could facilitate this practice?</td>
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**Description of Practice Activity**
- Students are grouped in teams of 4. Each student is assigned a letter (A, B, C, D).
- I post a problem (a monomial expression that needs to be factored).
- Each student gets 30-45 seconds to solve the problem independently on paper. The room must be SILENT!
  - Each team gets 30-45 seconds to check all answers. During this time, they need to make sure of the following:
    - The correct answer is written on their team whiteboard.
    - Every teammate must be able to answer all “check questions” (which are specific to this objective).
    - Teams should quiz each other on as many questions as possible (because I will ask them in random order).
- I call on one student from each group (A, B, C, or D) to be the Captain for this round. All Captains stand up and display their answer on the team whiteboard. All teams with the correct answer get 1 point.
  - If 3 or more teams have the incorrect answer, I will stop at this point to talk through the entire problem.
- I ask a different “check question” of each Captain. The ONLY person who can speak is the Captain.
  - If the Captain answers correctly, their team gets 2 points.
  - If the Captain calls on a teammate to answer (because they aren’t sure), their team gets 1 point.
  - If the Captain answers incorrectly, Remind students of expectations: no calling out during the “check questions,” but be ready if your table captain needs help.

Call on different students to re-state the directions for the game, and how points will be awarded.

Students solve the problem individually (silent), discuss the problem collaboratively (indoor voices), and then prepare to share out.

After each round, a new member of each group becomes the “captain.” Captains rotate clockwise after each round.

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I will either explain the answer, call on another student from another team, or coach the Captain to the answer. No points are awarded to anyone.

- Repeat for the next problem.
- There are 8 possible problems to complete (i.e., 8 possible rounds of the Amazing Math Race). I will determine how many to do based on:
  - Student Mastery: I will stop to re-teach if:
    - Students are consistently getting problems wrong.
    - Students are consistently unable to answer the “check questions” correctly.
    - I observe numerous inaccurate responses during the team discussion time.
  - Student Compliance: I will change this team activity to independent work (followed by whole-group review) if:
    - Students are unable to comply with the guidelines of the team activity.
    - Students are not using the team discussion time to discuss their answers and quiz all teammates on the “check questions.”

Check Questions (these will be on my clipboard)

- For the original expression (i.e., the expression that needs to be factored):
  - What is the coefficient?
  - What is the whole number?
  - What are all the factors of the coefficient?
  - What are all the factors of the whole number?
  - What factors do the coefficient and the whole number have in common?
  - What is the Greatest Common Factor?

- For the answer (i.e., the factored expression):
  - Which number is the Greatest Common Factor?
  - What did you do to arrive at the new coefficient?
  - What did you do to arrive at the new whole number?
  - How would you check this answer?
What would this expression be if you distributed it?

**Sequence**
- **(2-3 min.):** I remind students of directions (we have done this activity many times before).
- **(2-4 min. per round):**
  - I post problem.
  - Individual work.
  - Group discussion and check.
  - Whole-class check.
  - Questions for captains.

<table>
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<th>Co-Teaching Strategy</th>
<th>□ Which co-teaching approach will you use to maximize student achievement?</th>
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<td>□ Do you anticipate any students who will need an additional challenge?</td>
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<td>□ How can you utilize grouping strategies?</td>
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<td>□ How will you plan to coach and correct during this practice?</td>
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<tr>
<td>□ How will you provide opportunities for remediation and extension?</td>
<td></td>
</tr>
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<td>□ How will you clearly state and model academic and behavioral expectations?</td>
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<td>□ How are students using self-assessment to guide their own learning?</td>
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<td>□ How are you supporting students giving feedback to one another?</td>
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Review all five steps of factoring as a class, and then complete the exit ticket independently. Students will complete exit ticket, and begin work on the “challenge” problem if they finish early.

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Depending on the accommodations described on their IEP, some students may receive an exit ticket with only three problems.

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<th>□ How will students summarize and state the significance of what they learned?</th>
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<td>□ Why will students be engaged?</td>
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Before leaving, call on different students to describe the differences between distributing and factoring: what these two processes have in common, and how they are different.
Sixth Grade Math Lesson Plan Worksheet

1) What is the lesson objective?

2) What lesson activities am I using to teach the objective?

3) How could movement or physical activity be integrated?

4) What are the management considerations?
# 6th Grade Math Lesson Plan - After

<table>
<thead>
<tr>
<th>Teachers:</th>
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<tbody>
<tr>
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<td>6th grade math – beginning algebra</td>
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<td>□ Assign value to each portion of the response</td>
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**End-of-Lesson Exit Ticket:** Students will factor 5 simple monomial expressions.

1. 3x + 18 Answer: 3(x + 6)
2. 2x + 12 Answer: 2(x + 6)
3. 35x + 15 Answer: 5(7x + 3)
4. 7x + 21 Answer: 7(x + 3)
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### Background Information Sub-Objectives
- Working with algebraic expressions (like monomials and polynomials) is a critical skill for all higher-level Math classes.
- When working with algebraic expressions, sometimes we need to distribute and sometimes we need to factor.
- Factoring (taking numbers) is the opposite of distributing (giving numbers).

### Process Sub-Objectives
- To factor a monomial expression:
  1. Determine both the whole number and the coefficient.
  2. Find the Greatest Common Factor (GCF) of the whole number and the coefficient.
     a) List all factors for each number (i.e., all whole numbers that can be divided equally into each of the numbers).
     b) Identify all factors the whole number and the coefficient have in common.
     c) Identify the biggest number on both lists – this is the Greatest Common Factor.
  3. Divide both the whole number and the coefficient by the GCF.
  4. Write the factored expression in parentheses, with the GCF on the outside.
  5. Check your work by doing the opposite – by distributing the GCF.

### Key vocabulary:
Monomials  
Polynomials  
Factoring  
GCF

### Materials:
Exit tickets, whiteboards

### Opening (state objectives, connect to previous learning, and make relevant to real life)
- □ How will you activate student interest?
- □ How will you connect to past learning?
- □ How will you present the objective in an engaging and student-friendly way?
- □ How will you communicate its importance and make the content relevant to your students?

### Do Now (4 min)
Students will independently distribute 3 simple monomial expressions as a review from a previous lesson. They will
Complete these problems in the warm-up section of their math notebooks:

- $4(2x + 3)$
- $7(x + 4)$
- $2(5x + 1)$

Review the answer to #1 by asking the following questions:

- What did we just do with this monomial expression? (*Distributed*)
- What number did we distribute in this expression? (*the 4*)
- What did we do to distribute this expression? (*multiplied both the 2x and the 3 by 4*)
- What is our answer? (*$8x + 12$*)

Review answers for #2 and #3 – only ask series of questions if necessary (*Answers: $7x + 28$ and $10x + 2$*).

**Introduce Lesson (1 min.)**

When working with algebraic expressions like these, sometimes we need to distribute – we already know how to do this. Sometimes we need to take the opposite action – we need to factor.

- **Objective:** SWBAT factor simple monomial expressions.
- **Agenda**
  - We work through examples together to learn the process.
  - You practice the process in teams by doing the "The Amazing Math Race."
  - You show me what you have learned on your exit tickets.

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<td>- Call on different students to answer/hypothesize what we will need to do in order to factor the expression.</td>
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<td>- How will you check for understanding?</td>
<td>- Use popsicle sticks to call on different students to answer the CFU questions.</td>
</tr>
<tr>
<td>- How will you explain and model behavioral expectations?</td>
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**Background Information Sub-Objectives (2 min.)**

- We know that distributing means giving a number to all parts of the expression. In #1 from the Do Now, we gave the number 4 to both the 2x and the 3.
- Factoring is the opposite of distributing – this means we’re going to be taking a number from all parts of the expression.
- So if we look at #1 from the Do Now again:
  - We gave the number 4 to all parts of the expression to distribute it. And we ended up with $8x + 12$.
  - What do you think we will do to factor this new expression? (*Take the number 4 away from all parts of the expression*)

**Process Sub-Objective #1 (1 min.)**

- We’re going to learn how to factor expressions using this same example: $8x + 12$.
  - **Step One:** Determine both the whole number and the coefficient.
    - What’s the whole number in this expression? (*12*)
What’s the coefficient? (8)

Process Sub-Objective #2 (5 min.)
• Step Two: Find the Greatest Common Factor (GCF)
  d) List all factors for each number (i.e., all whole numbers that can be divided equally into each number).
  e) Identify all factors the whole number and the coefficient have in common.
  f) Identify the biggest number on both lists – this is the Greatest Common Factor.

• Model this process using the example expression: 8x + 12.

• Finding the GCF is a really critical step – if we go wrong here, we’ll get the whole problem wrong. Let’s make sure we’re all very clear on how to do this by practicing with a few more expressions:
  4. 6x + 15
  5. 14x + 28
  6. 5x + 20

• Expression #1
  o What is the coefficient? (6)
  o What are the factors of 6? [(1,6) (2,3)]
  o What is the whole number? (15)
  o What are the factors of 15? [(1,15) (3,5)]
  o What are the common numbers? (1 and 3)
  o What is the GCF? (3)

• Work through #2 and #3 (with the same question sequence if necessary). (Answers: #2 GCF = 14, #3 GCF = 5)

Process Sub-Objective #3 (1 min.)
• Step Three: Divide both the whole number and the coefficient by the GCF.
  o Let’s go back to our first example: 8x + 12
  o I’ve already identified that the GCF is 4. Now I divide both numbers by the GCF and I get 2x + 3.
    • This is what I meant by saying that factoring means taking – we just took the 4 away from this expression.

Process Sub-Objective #4 (1 min.)
• Step Four: Write the factored expression in parentheses with the GCF outside.
  o I put the 2x + 3 in parentheses, with the 4 on the outside: 4(2x + 3).

Process Sub-Objective #5 (1 min.)
In rapid-fire fashion, call on several different students to answer the CFU questions.

Students will be writing each example down in their math notebook.
Step Five: Check your work by doing the opposite of factoring (distribute the GCF)
  - Why do I do this? What does factoring mean? (Taking)
  - And what does distributing mean? (Giving)
  - 4 times 2x = 8x and 4 times 3 = 12
  - this gives me 8x + 12
  - That’s right where I started!

Review Process Sub-Objectives #3-#5 (4 min.)
- Let’s make sure we’ve got Steps 3-5 down before we put them all together. We’ll use the 3 examples for which we found the GCF earlier:
  1. 6x + 15 (GCF = 3)
  2. 14x + 28 (GCF = 14)
  3. 5x + 20 (GCF = 5)

Example #1
  - I have the GCF. What do I do next? (Step 3 – divide both the whole number and the coefficient by the GCF)
  - What is 6x divided by 3? (2x)
  - What is 15 divided by 3? (5)
  - So what do I have? (2x + 5)
  - What do I do to finish this factored expression? Step 4 – write the factored expression in parentheses with the GCF on the outside
  - So what’s my factored expression? 3(2x + 5)
  - What do I do to check my work? (Step 5 – distribute the GCF)
  - How do I distribute? (multiply both parts of the expression by 3)
  - If I do that, what do I get? (6x + 15)
  - Is that correct? (Yes)

- Work through #2 and #3 (using the same question sequence if necessary). [Answers: #2 14(x + 2) #3 5(x + 4)]

Review ALL Process Sub-Objectives (3 min.)
- O.K. – before we move on the Amazing Math Race, let’s be sure we can put all the steps together for two examples.
  3. 12x + 24
  4. 9x + 12

Co-Teaching Strategy
- Which co-teaching approach will you use to maximize student achievement?

Co-teaching. The two teachers will take turns modeling different example problems while the other teacher circulates and offers students individual assistance as needed.
### Differentiation Strategy

- What accommodations/modifications will you include for specific students?
- Do you anticipate any students who will need an additional challenge?

For some of our students who have difficulty with writing, we will provide a sheet of notes with the example problems pre-written. The students can then paste this directly into their math notebook.

### Teacher Will:

- How will you ensure that all students have multiple opportunities to practice new content and skills?
- What types of questions can you ask students as you are observing them practice?
- How/when will you check for understanding?
- How will you provide guidance to all students as they practice?
- How will you explain and model behavioral expectations?
- Is there enough detail in this section so that another person could facilitate this practice?

### Student Will:

- How will students practice all knowledge/skills required of the objective, with your support, such that they continue to internalize the sub-objectives?
- How will students be engaged?
- How will you elicit student-to-student interaction?
- How are students practicing in ways that align to independent practice?

### Description of Practice Activity

- Students are grouped in teams of 4. Each student is assigned a letter (A, B, C, D).
- I post a problem (a monomial expression that needs to be factored).
- Each student gets 30-45 seconds to solve the problem independently on paper. The room must be SILENT!
  - Each team gets 30-45 seconds to check all answers. During this time, they need to make sure of the following:
    - The correct answer is written on their team whiteboard.
    - Every teammate must be able to answer all "check questions" (which are specific to this objective).
    - Teams should quiz each other on as many questions as possible (because I will ask them in random order).
- I call on one student from each group (A, B, C, or D) to be the Captain for this round. All Captains stand up and display their answer on the team whiteboard. When I say “GO”, all team captains must leave their table groups and power walk to the board at the front of the room. When I say “GO” and captains leave their tables, everyone else will stand up at their desks and push their chairs in. All captains must write the solution to their problem on the board. All teams with the correct answer get 1 point. I will then “poll” the class by asking them to make a movement. I will point to one of the solutions on the board. If they think the answer is correct, they will do five jumping jacks. If they think it is incorrect, they will hop on one foot five times. These movements will serve as a call on different students to re-state the directions for the game, and how points will be awarded.

Students solve the problem individually (silent), discuss the problem collaboratively (indoor voices), and then prepare to share out.

After each round, a new member of each group becomes the “captain.” Captains rotate clockwise after each round.

Students re-state rules for physical activity: keep hands, feet, and objects to yourself, and make sure that materials and book bags are tucked under desks to prevent people from tripping.

Remind students of expectations: no calling out during the “check questions,” but be ready if your table captain needs help.
whole-class check for understanding. After the poll, I will reveal the correct answer and all teams who have it will get one point.

- If 3 or more teams have an incorrect answer, I will stop at this point to talk through the entire problem.

- I ask a different “check question” of each Captain. The ONLY person who can speak is the Captain.
  - If the Captain answers correctly, their team gets 2 points.
  - If the Captain calls on a teammate to answer (because they aren’t sure), their team gets 1 point.
  - If the Captain answers incorrectly, I will either explain the answer, call on another student from another team, or coach the Captain to the answer. No points are awarded to anyone.

- Repeat for the next problem.

- There are 8 possible problems to complete (i.e., 8 possible rounds of the Amazing Math Race). I will determine how many to do based on:
  - Student Mastery: I will stop to re-teach if:
    - Students are consistently getting problems wrong.
    - Students are consistently unable to answer the “check questions” correctly.
    - I observe numerous inaccurate responses during the team discussion time.
  - Student Compliance: I will change this team activity to independent work (followed by whole-group review) if:
    - Students are unable to comply with the guidelines of the team activity.
    - Students are not using the team discussion time to discuss their answers and quiz all teammates on the “check questions.”

Check Questions (these will be on my clipboard)
- For the original expression (i.e., the expression that needs to be factored):
  - What is the coefficient?
| o What is the whole number?  
o What are all the factors of the coefficient?  
o What are all the factors of the whole number?  
o What factors do the coefficient and the whole number have in common?  
o What is the Greatest Common Factor?  
• For the answer (i.e., the factored expression):  
o Which number is the Greatest Common Factor?  
o What did you do to arrive at the new coefficient?  
o What did you do to arrive at the new whole number?  
o How would you check this answer?  
o What would this expression be if you distributed it? |
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| • (2-3 min.): I remind students of directions (we have done this activity many times before).  
• (2-4 min. per round):  
o I post problem.  
o Individual work.  
o Group discussion and check.  
o Whole-class check.  
Questions for captains. |
| **Co-Teaching Strategy** |
| ☐ Which co-teaching approach will you use to maximize student achievement? |

One teacher posts the problems, asks the CFU questions, and keeps track of time, while the other teacher circulates through the classroom to ensure that all students are participating and answers questions as needed.

| **Differentiation Strategy** |
| ☐ What accommodations/modifications will you include for specific students?  
☐ Do you anticipate any students who will need an additional challenge?  
☐ How can you utilize grouping strategies? |

**Teacher Will:**
- How will you plan to coach and correct during this practice?
- How will you provide opportunities for remediation and extension?
- How will you clearly state and model academic and behavioral expectations?
- Did you provide enough detail so that another person could facilitate the practice?

**Student Will:**
- How will students independently practice the knowledge and skills required by the objective?
- How will students be engaged?
- How are students practicing in ways that align to assessment?
- How are students using self-assessment to guide their own learning?
- How are you supporting students giving feedback to one another?

**Independent Practice**

Review all five steps of factoring as a class, then complete the exit ticket independently.

Students will complete exit ticket, and begin work on the “challenge” problem if they finish early.

| **Co-Teaching Strategy** |
| ☐ Which co-teaching approach will you use to maximize student achievement? |
**Differentiation Strategy**
- What accommodations/modifications will you include for specific students?
- Do you anticipate any students who will need an additional challenge?

Depending on the accommodations described on their IEP, some students may receive an exit ticket with only three problems.

**Closing/Student Reflection/Real-life connections:**
- How will students summarize and state the significance of what they learned?
- Why will students be engaged?

Before leaving, call on different students to describe the differences between distributing and factoring: what these two processes have in common, and how they are different.