SUPER SIMPLE ALGEBRA CURRICULUM

$4 + x = 10$

12 Complete units

JOY 2 TEACH

MAKING MATH ACCESSIBLE TO ALL LEARNERS

For students who:

- are emerging or non-readers
- take alternate assessments
- are in special education
- short-attention span
- lack pre-requisite skills
- benefit from the use of pictures for support
- middle/high school

SUPER SIMPLE

- Super simple indicates that it is intended for students working at a **K-1 level** and need maximum support.
- Problems are **simplified**.
- **Pictures** are used throughout.
- Intended for students in self-contained settings.
- **Printable and digital** activities for more practice.

Essential Topics

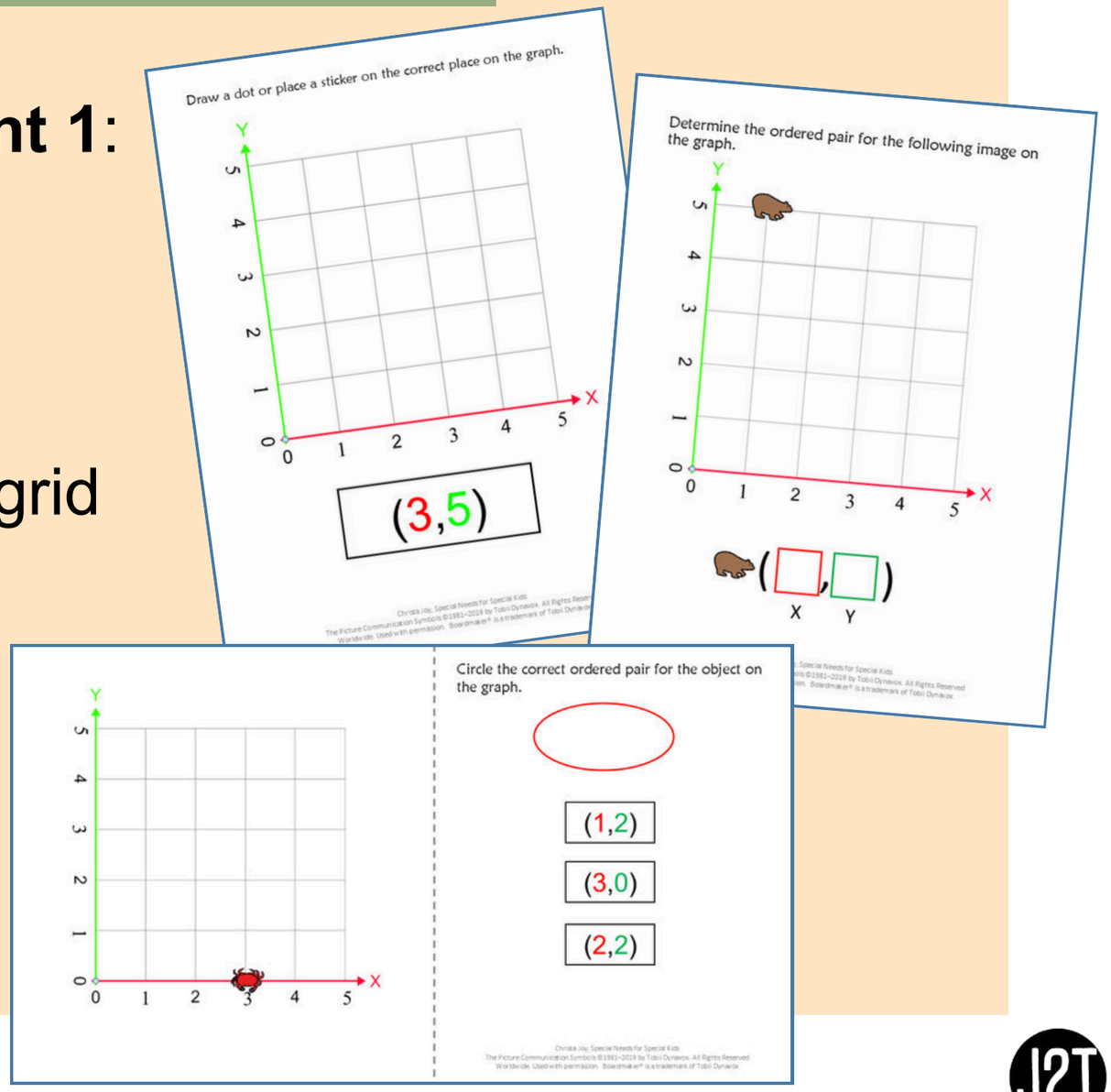
1. Plotting Coordinates
2. Exponents
3. Rational Numbers
4. Ratios
5. Function Machines
6. Function Tables
7. Slope
8. Algebra
9. Inequalities
10. Polynomials
11. Systems of Equations
12. Pythagorean Theorem

Most often taught in this order

1. Plotting Coordinates

This unit mainly focuses on **Quadrant 1**:

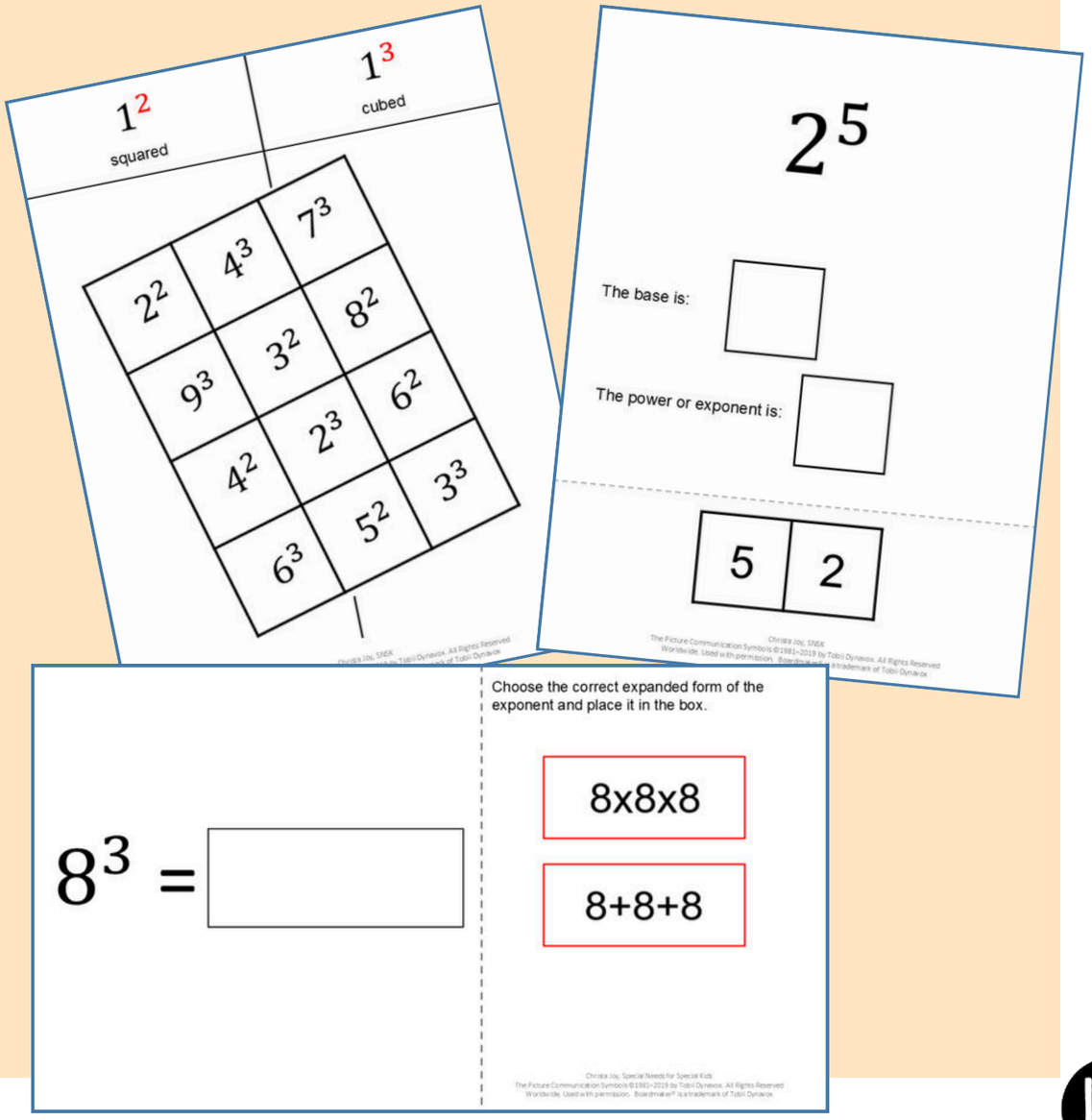
- Labeling parts of a graph
- Identify coordinates on objects
- Plotting objects on a coordinate grid



2. Exponents

This unit addresses:

- Identify numbers with exponents
- Identify the base and power
- Expanded form of exponents
- Focus on **squared and cubed**



3. Rational Numbers

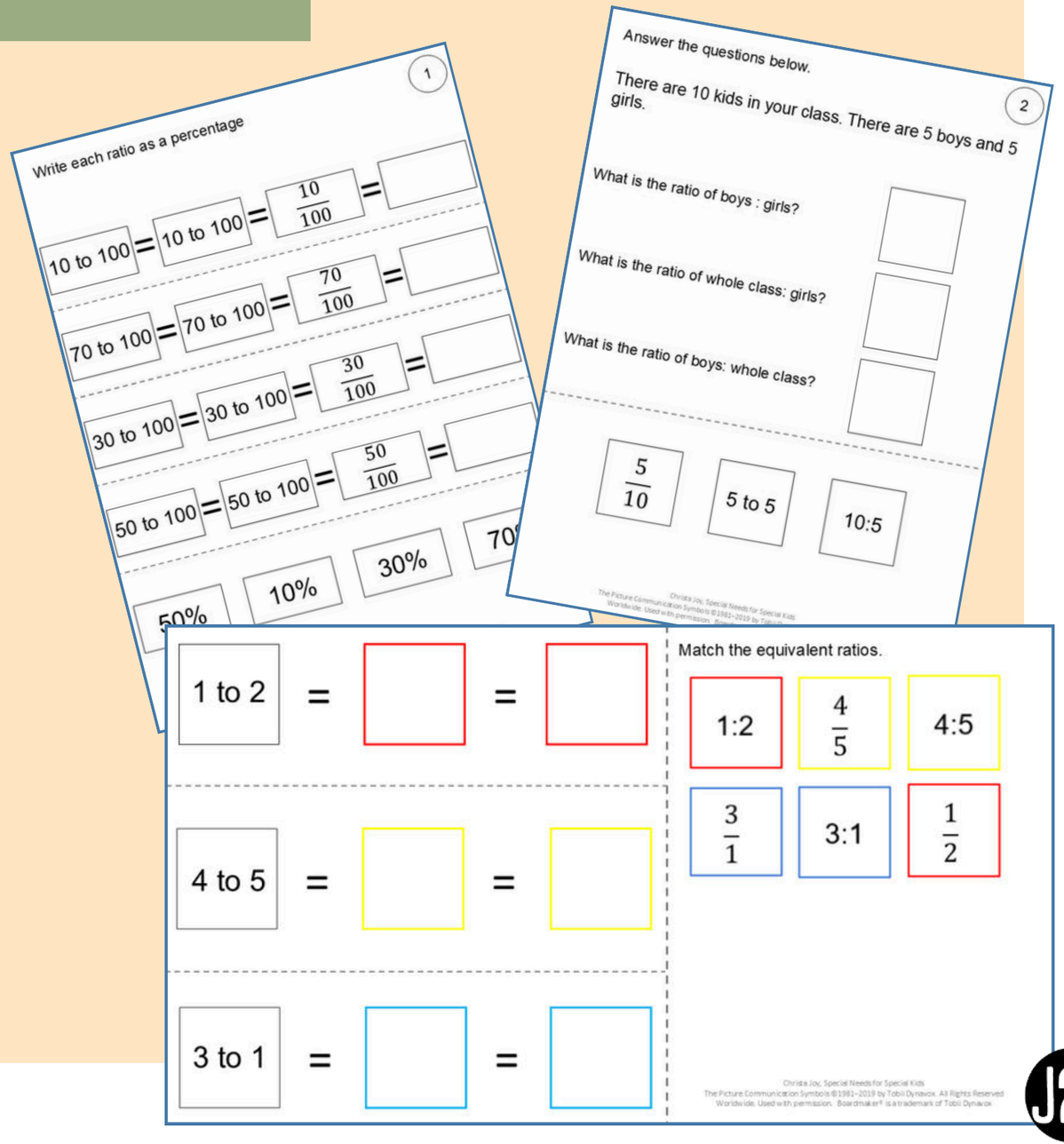
This unit addresses:

- Types of rational numbers
- Repeating and nonrepeating decimals
- Irrational numbers

4. Ratios

This unit addresses:

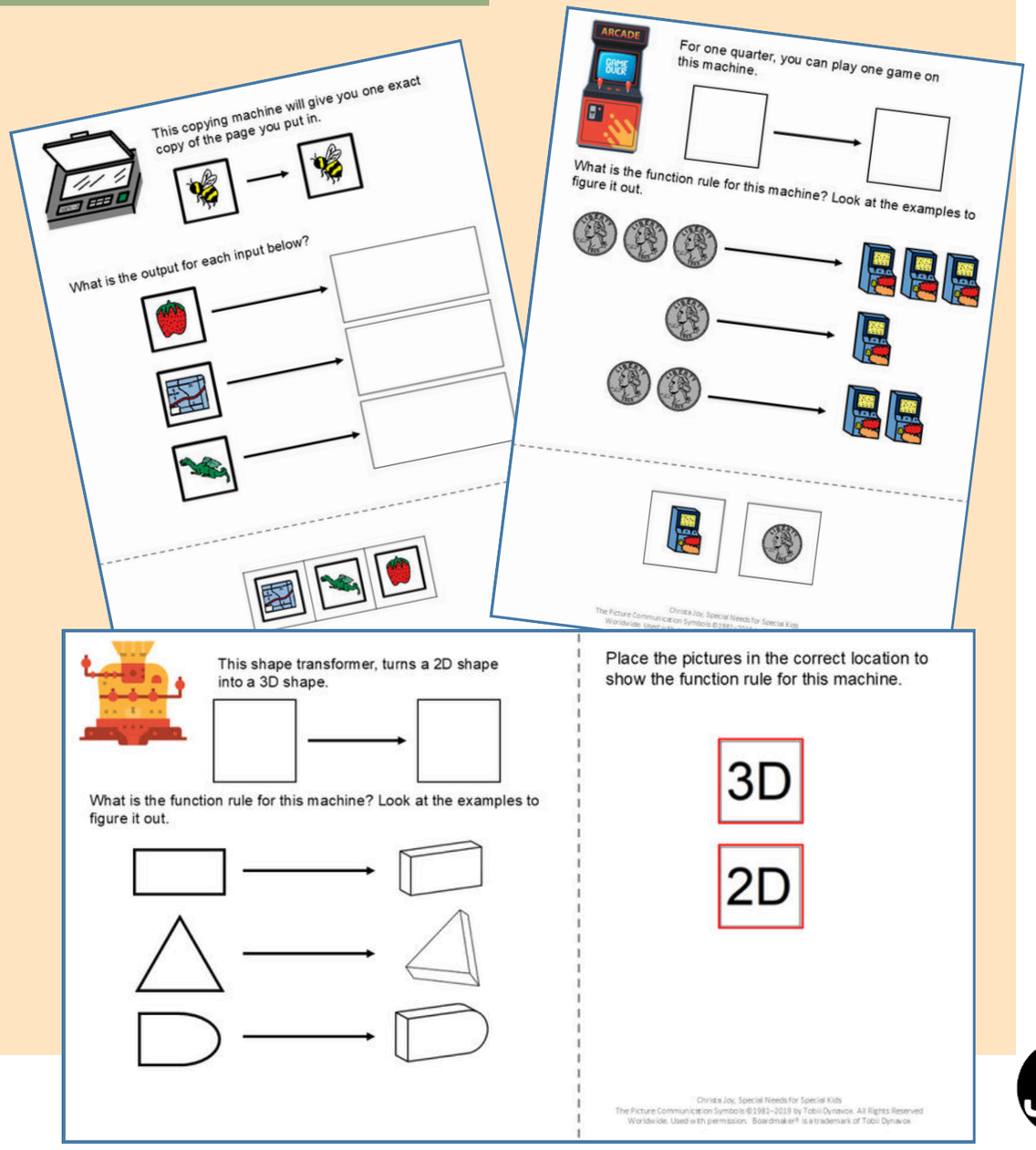
- Ways to express ratios
  - part:part
  - part:whole
  - whole:part
- Equivalent ratios
- Percentage (with ratios out of 100)
- Real-world problems



5. Function Machines

This unit addresses:

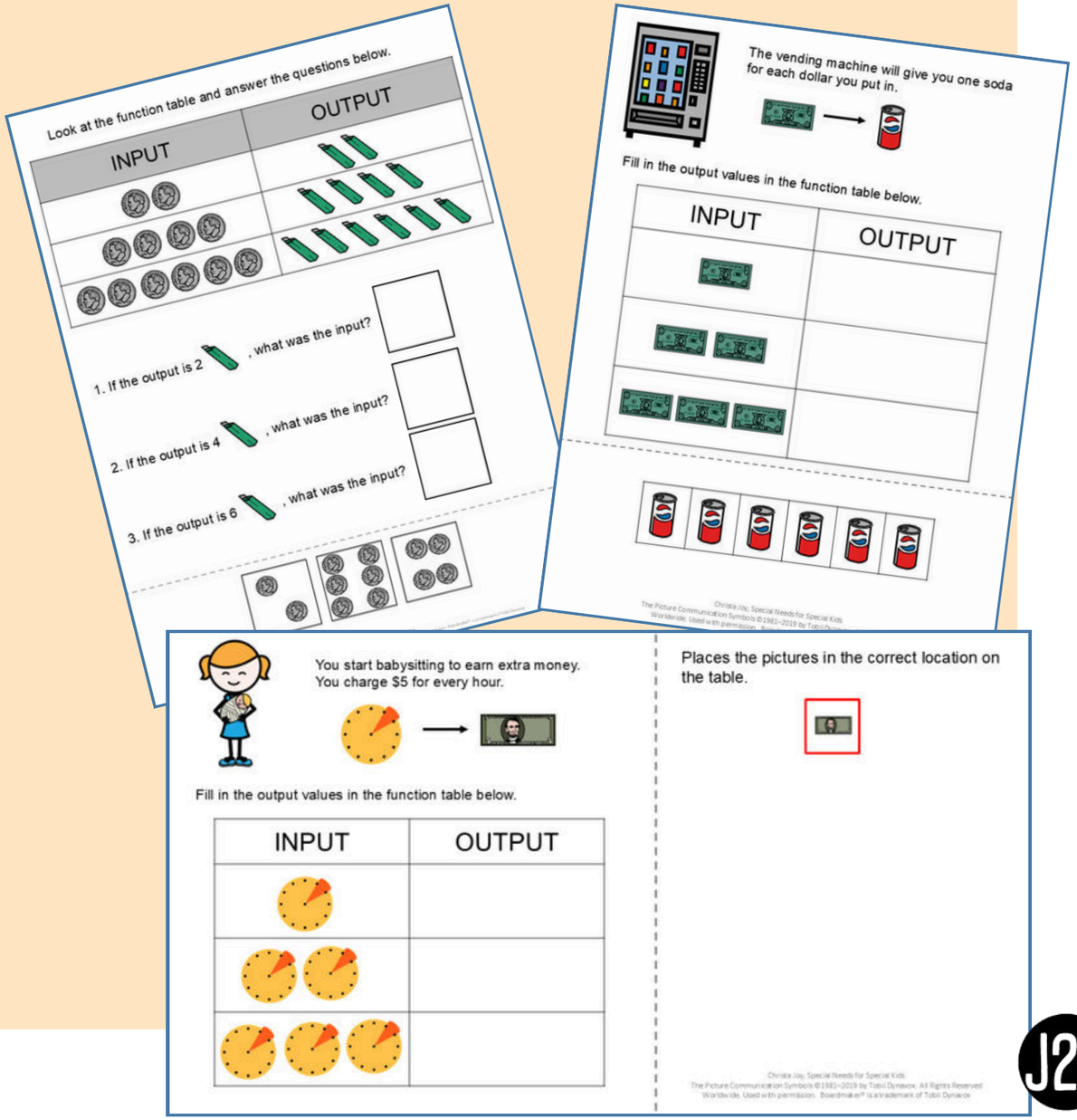
- The output of the machine given an input
- The input of the machine given an input
- The function rule for the machine



6. Function Tables

This unit addresses:

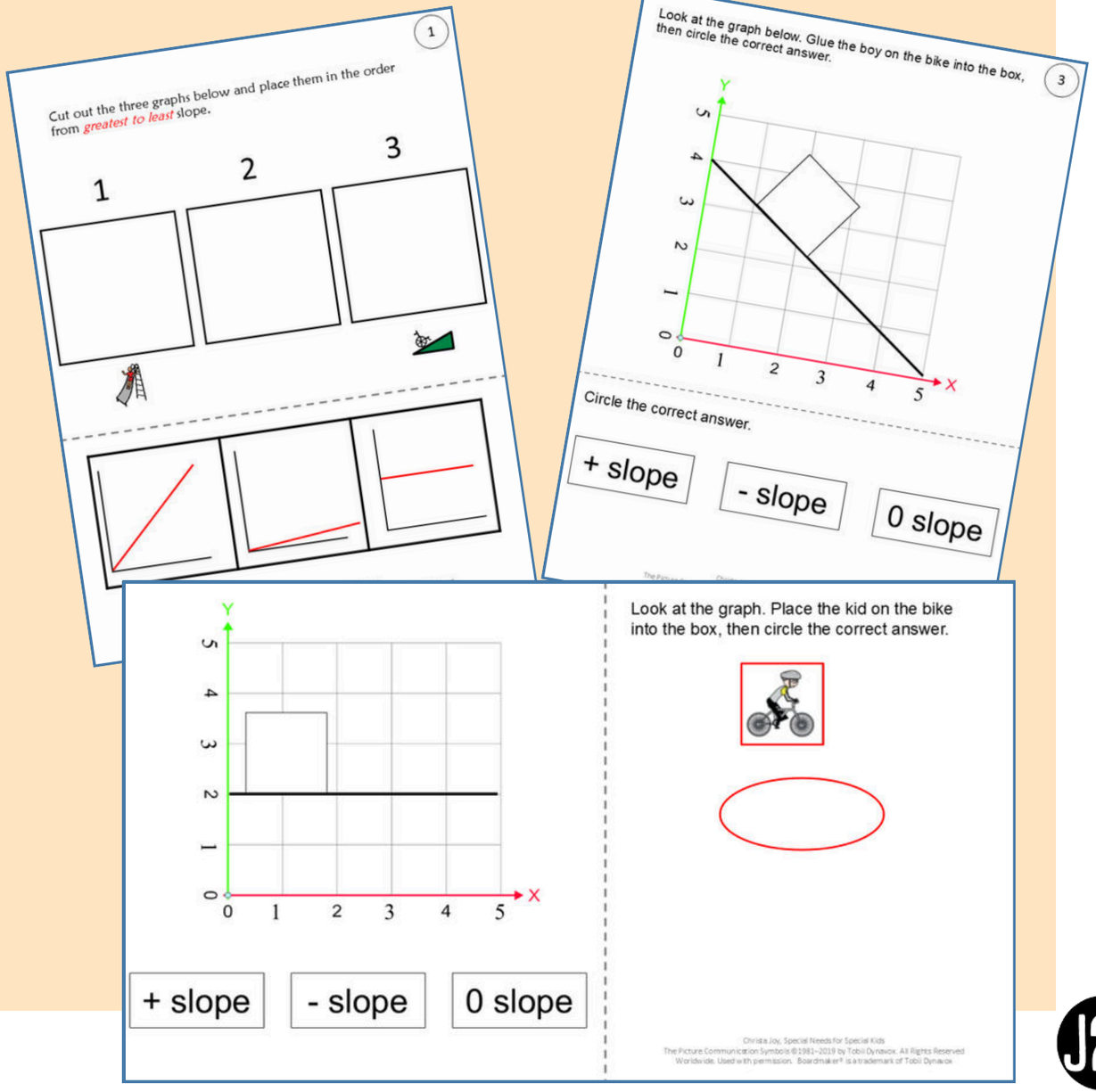
- Identify parts of a function table
- Identify the output values in the table
- Identify the input values in the table
- Fill in missing outputs in the table



7. Slope

This unit addresses:

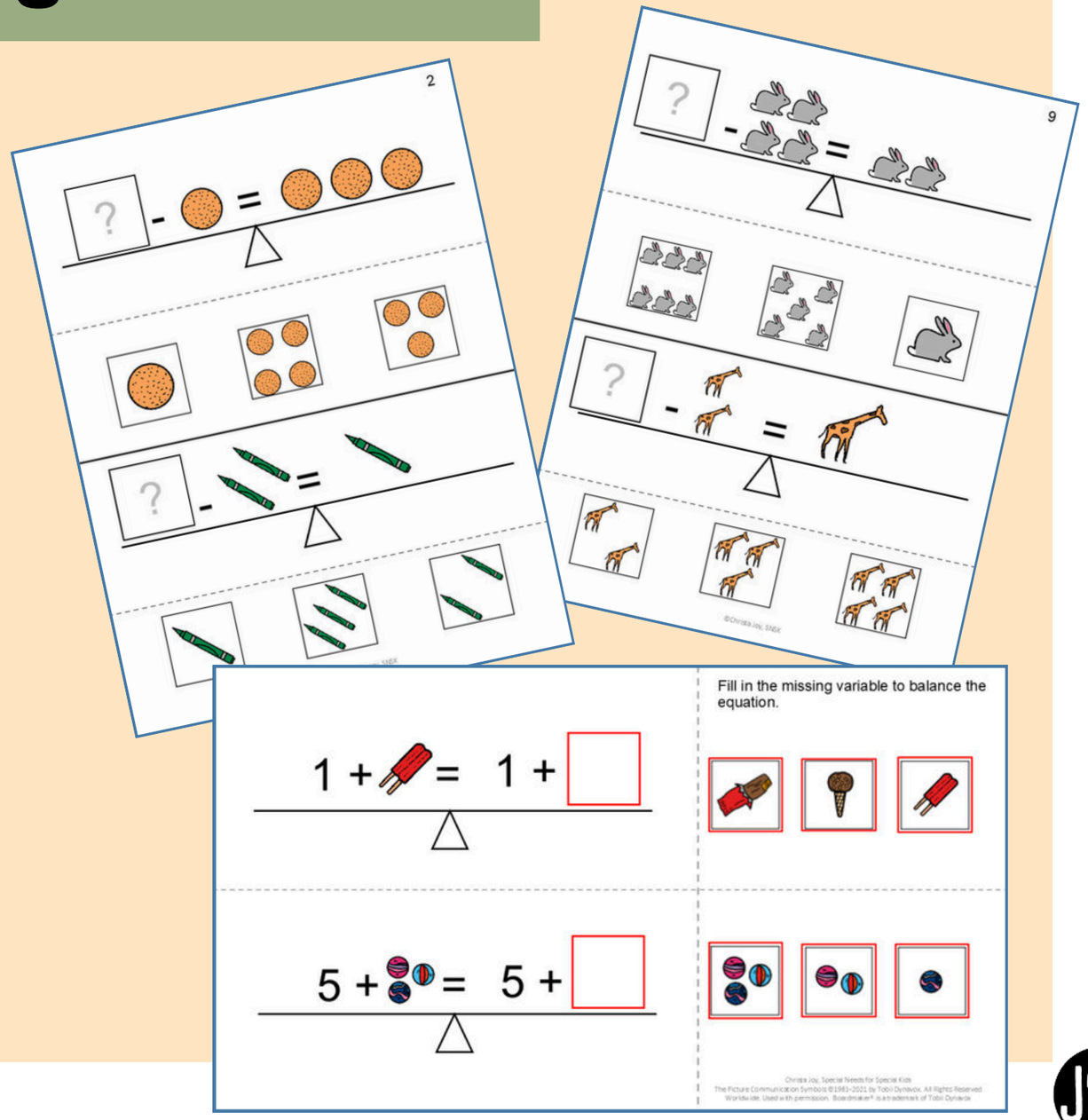
- Objects that have a slope
- Steeper indicates more slope
- Positive, negative, and zero slope
- Rise and run



8. Algebra

This unit addresses:

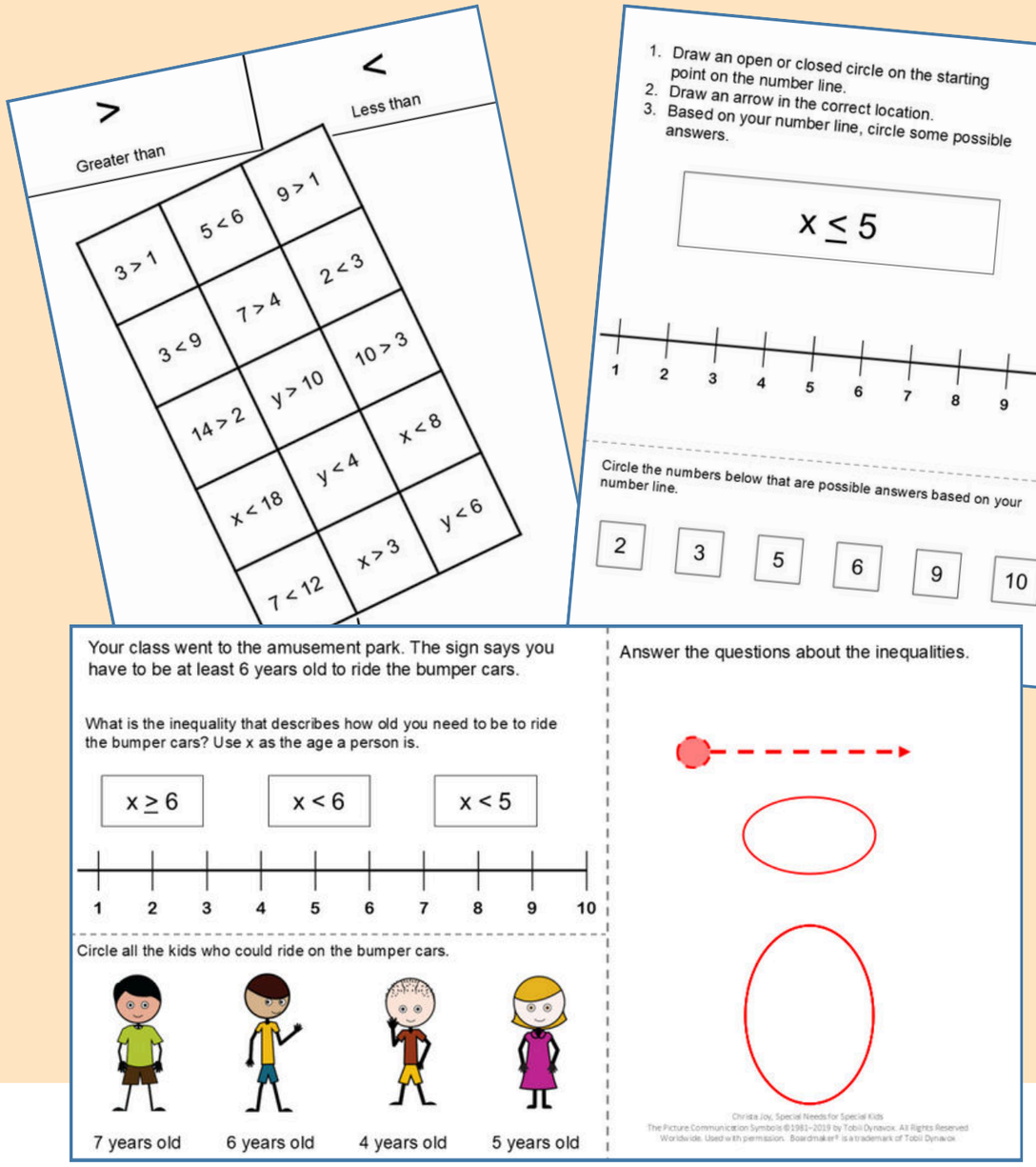
- Checking if equations are balanced
- Balancing equations
- Solving for an unknown variable



9. Inequalities

This unit addresses:

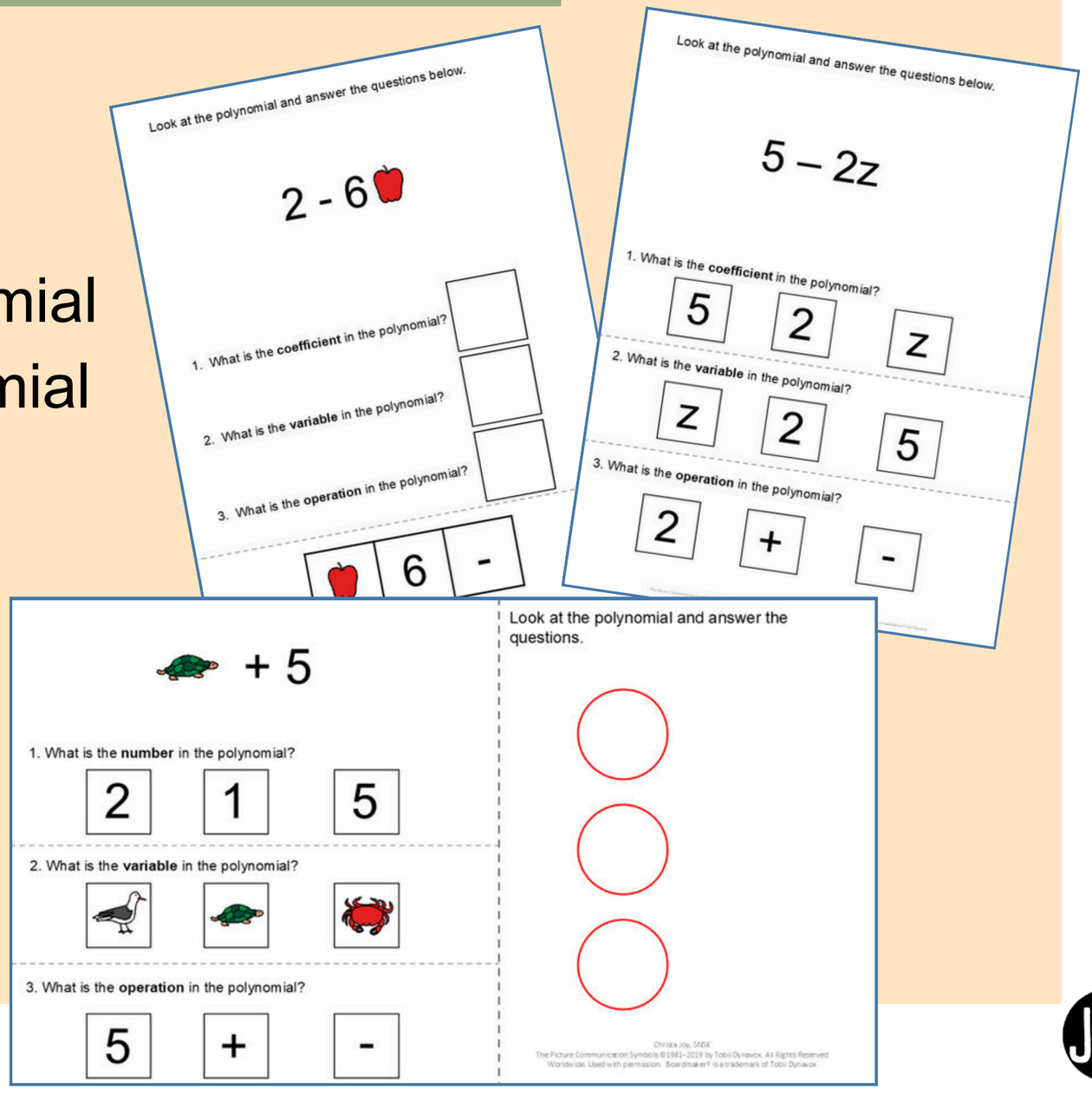
- Identify inequality symbols
- Identify possible values on inequalities
- Use a number line to draw inequalities
- Real-world examples



10. Polynomials

This unit addresses:

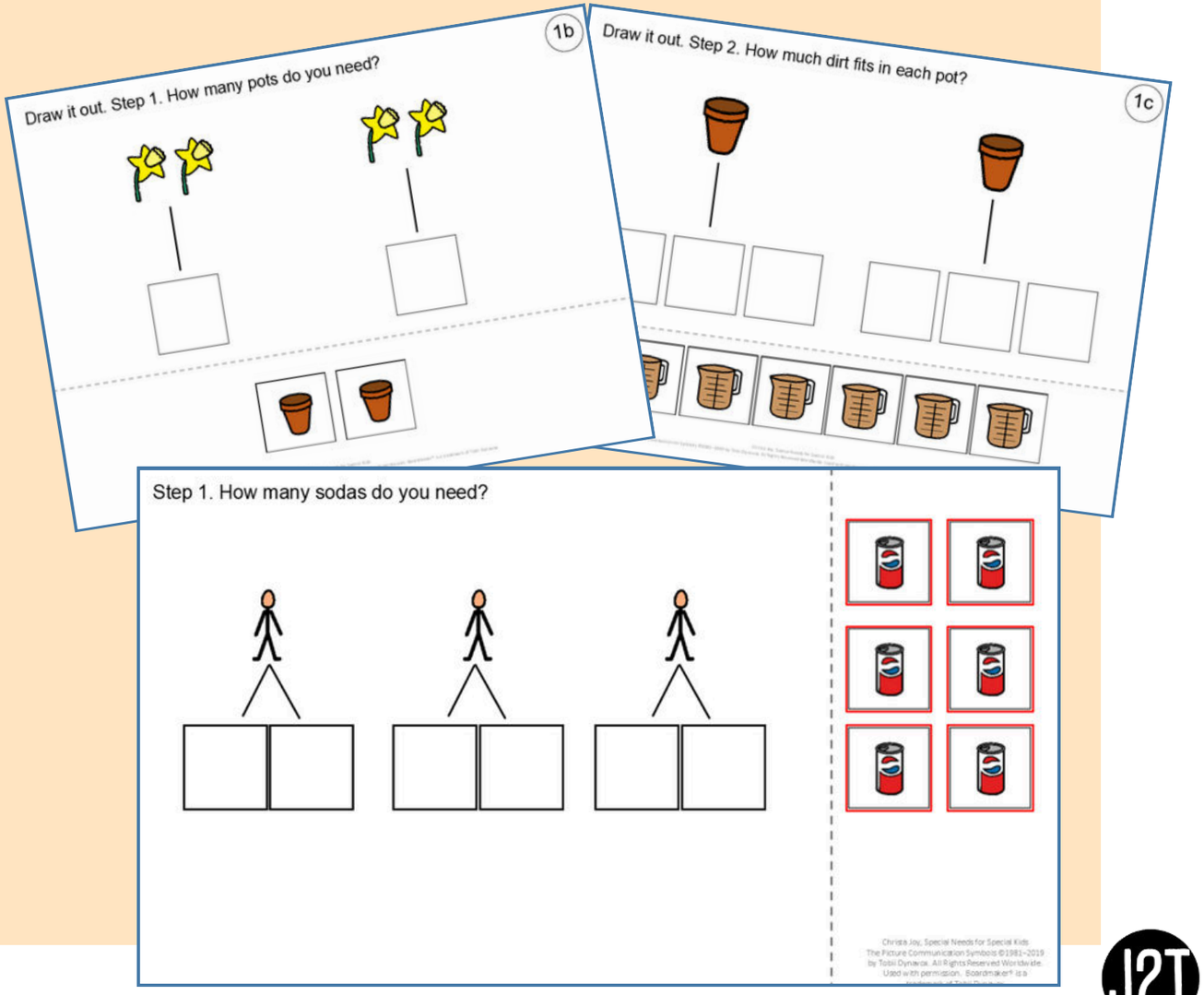
- Identify variables in a polynomial
- Identify numbers in a polynomial
- Identify coefficients in a polynomial
- Identify operations in a polynomial (addition and subtraction)



11. Systems of Equations

This unit addresses:

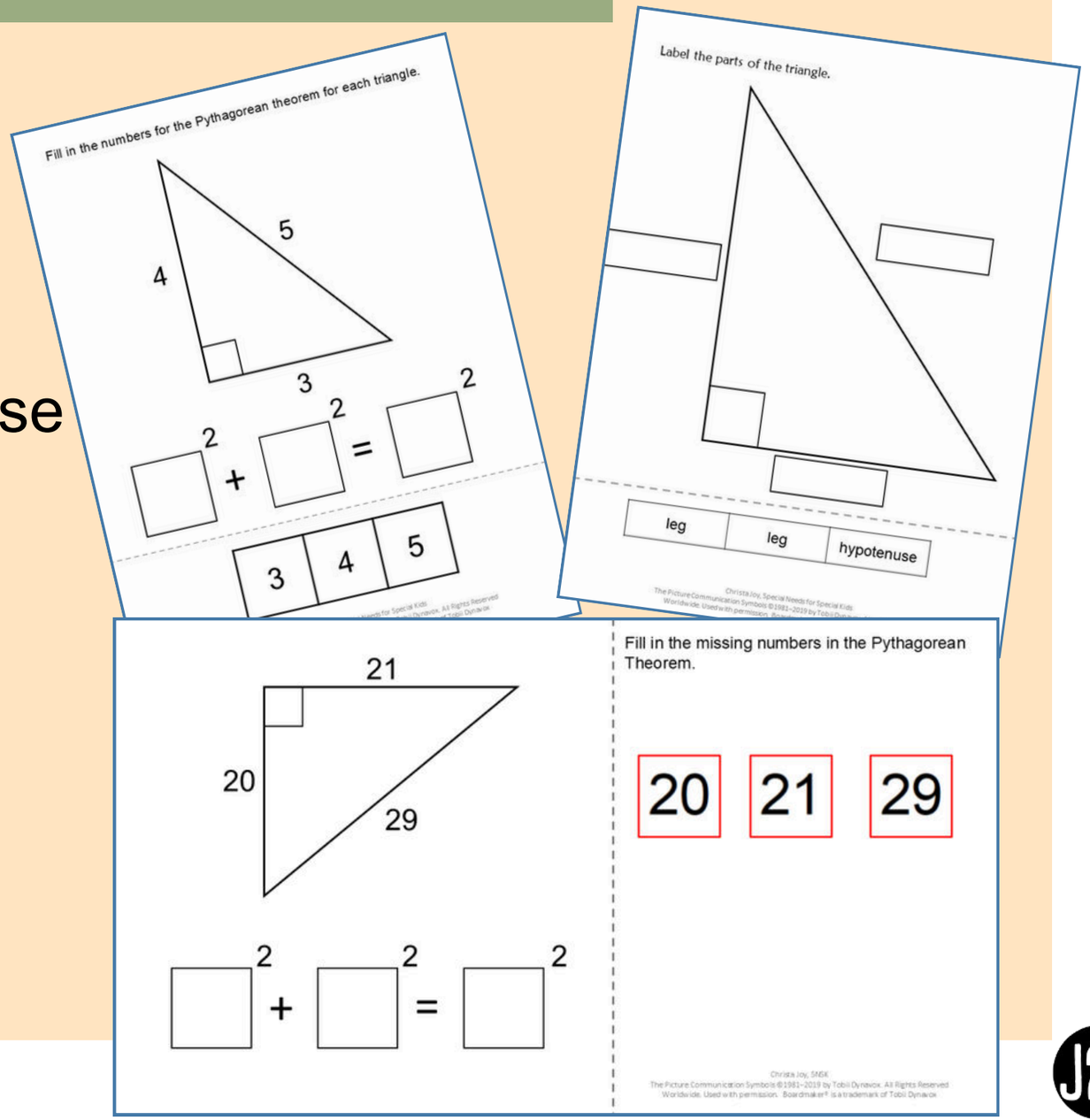
- Real-world situations that are systems in disguise
- Identifying variables
- How variables are related
- **Uses simple math**



12. Pythagorean Theorem

This unit addresses:

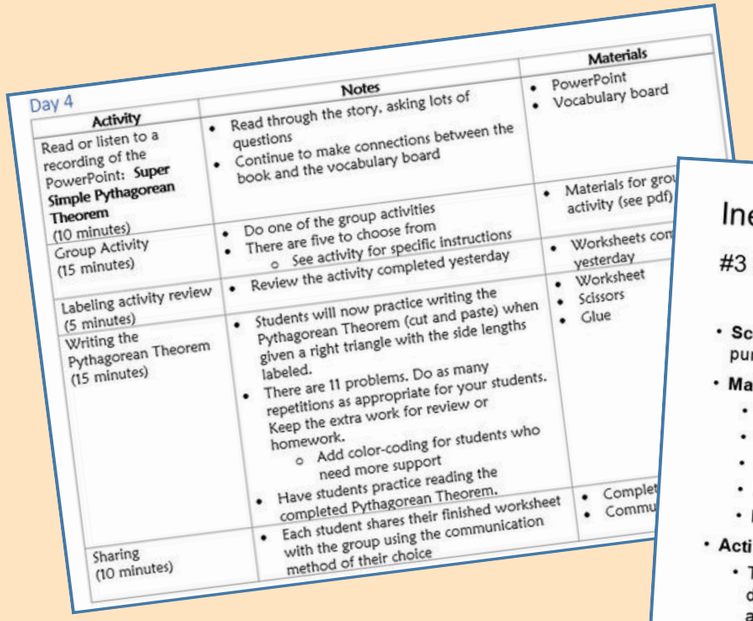
- Identifying right triangles
- Identify the legs and hypotenuse
- Plug values into the Pythagorean Theorem



What's Included?

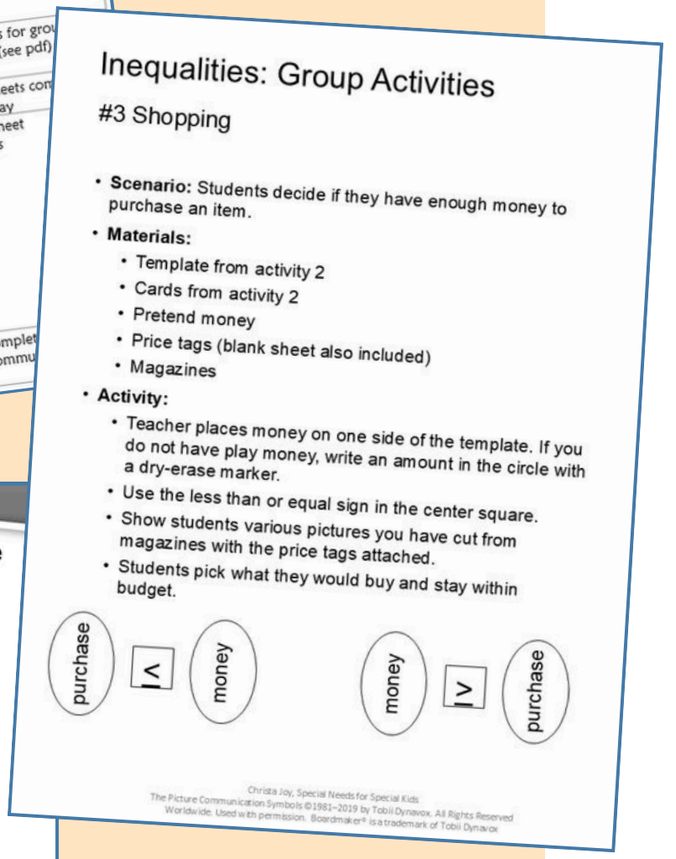
Each unit has:

- Detailed lesson plans
- Engaging PowerPoints to teach concepts
- **Group activities**
- Practice worksheets
- Assessments
- Printable and digital formats



Day 4

Activity	Notes	Materials
Read or listen to a recording of the PowerPoint: **Super Simple Pythagorean Theorem** (10 minutes)	• Read through the story, asking lots of questions • Continue to make connections between the book and the vocabulary board	• PowerPoint • Vocabulary board
Group Activity (15 minutes)	• Do one of the group activities • There are five to choose from ○ See activity for specific instructions	• Materials for grou activity (see pdf)
Labeling activity review (5 minutes)	• Review the activity completed yesterday	• Worksheets com yesterday
Writing the Pythagorean Theorem (15 minutes)	• Students will now practice writing the Pythagorean Theorem (cut and paste) when given a right triangle with the side lengths labeled. • There are 11 problems. Do as many repetitions as appropriate for your students. Keep the extra work for review or homework. ○ Add color-coding for students who need more support • Have students practice reading the completed Pythagorean Theorem.	• Worksheet • Scissors • Glue
Sharing (10 minutes)	• Each student shares their finished worksheet with the group using the communication method of their choice	• Complet • Commu



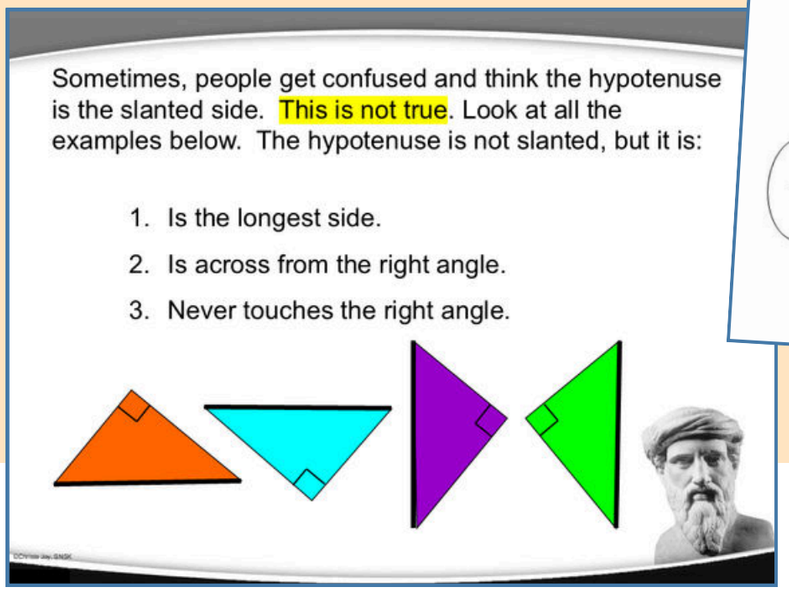
Inequalities: Group Activities

#3 Shopping

- **Scenario:** Students decide if they have enough money to purchase an item.
- **Materials:**
  - Template from activity 2
  - Cards from activity 2
  - Pretend money
  - Price tags (blank sheet also included)
  - Magazines
- **Activity:**
  - Teacher places money on one side of the template. If you do not have play money, write an amount in the circle with a dry-erase marker.
  - Use the less than or equal sign in the center square.
  - Show students various pictures you have cut from magazines with the price tags attached.
  - Students pick what they would buy and stay within budget.

purchase ≤ money

money ≥ purchase

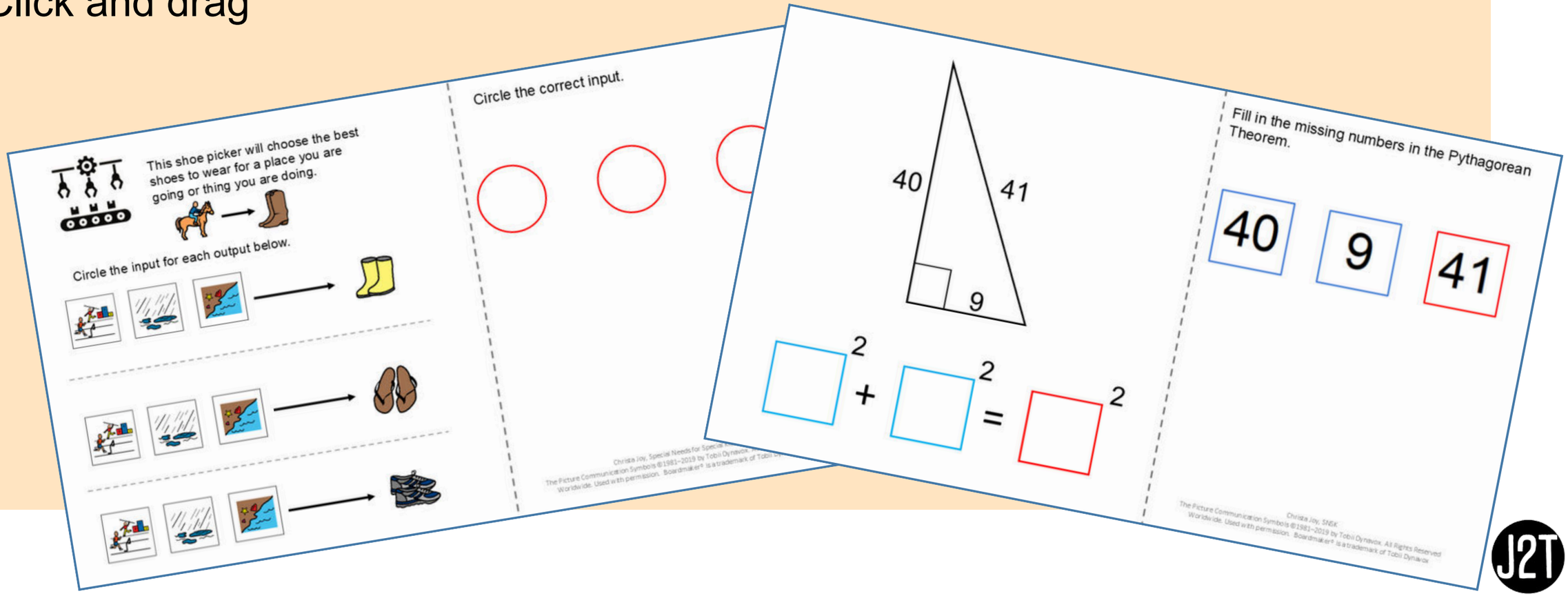


Sometimes, people get confused and think the hypotenuse is the slanted side. This is not true. Look at all the examples below. The hypotenuse is not slanted, but it is:

1. Is the longest side.
2. Is across from the right angle.
3. Never touches the right angle.

Digital Activities

- Provide extra practice
- Great independent work centers
- Include a differentiated set of slides
- Click and drag



What Teachers Are Saying

I was truly struggling with finding algebra materials (without having to make everything from scratch) for my high school students whose comprehension is more on a k-1st grade level. These visual algebra activities made the content accessible. Great resource.

This resource aligns with our standards that need to be covered for alternative assessment. The worksheets help to make the concept more concrete for my students.

Still have questions?

Reach out at specialneedsforspecialkids@gmail.com

I will answer your question personally and promptly.

Christa Joy, M.Ed., DVM