

Application | Add Within 20

Activities, Structures, and Considerations

Use the chart below to determine how to use the Application resources to best meet the needs of your students. The activities provide opportunities for partner or independent work. Use any combination of the activities and structures to engage students in applying their understanding of adding within 20.

Read–Draw–Write

Support students as they use a simple, repeatable process to solve problems. The more students participate in reasoning through problems with this systematic approach, the more they internalize these practices and thought processes. The Read–Draw–Write (RDW) process is a way students can make sense of problems, choose and apply mathematical strategies, and solve. Here are the steps students take when using the RDW process.

- **Read** the problem all the way through. Then reread a chunk at a time. As you reread, ask yourself, “Can I draw something?” Then ask, “What can I draw?”
- **Draw** to represent the problem as you reread. Add to or revise your drawing as you uncover new information or discover what is unknown. As you draw, label what is known and what is unknown. When you finish rereading and drawing, ask yourself, “What does my drawing show me?” Let your drawing help you find a way to solve.
- **Write** number sentences or equations to represent your thinking. Solve. Then use your solution to write a statement that answers the original question.

Activity	Structure	Considerations
Solve a Problem	Independent Work Partner Work	<ul style="list-style-type: none"> • Consider providing the Read–Draw–Write Tool to support students as they solve problems involving adding within 20. Two printable versions of the Read–Draw–Write Tool can be found in the Implementation Guide. • Consider inviting students to share their work with a partner. Students can compare solution paths and make connections between different representations. • Consider providing students with the Solve a Problem Recording Page as an alternative to working on a whiteboard.
Play a Game	Partner Work	<ul style="list-style-type: none"> • Consider using a standard deck of playing cards if you do not have <i>Eureka Math</i>² cards. • Consider providing Number Path to 20 to support students with addition within 20.
Solve a Task	Partner Work	<ul style="list-style-type: none"> • Consider providing manipulatives, such as a number path or cubes, for students to use as they model the problem to support their understanding.

Solve a Problem

Materials

- Personal whiteboard
- Application Word Problem Cards
- Solve a Problem Recording Page (optional)

Students use the **Read–Draw–Write** process to solve word problems involving addition within 20. Students can record solutions on a whiteboard or on the Solve a Problem Recording Page.

Teacher Tip

Consider facilitating one of the Application activities with a small group of students. Facilitating an Application activity enables you to informally monitor progress and provide support as needed.

Play a Game: Addition Top It

Materials

- *Eureka Math*² cards or a standard deck of playing cards
- Game Instruction Card
- Number Path to 20 (optional)

Students work with a partner to play a game involving addition within 20.

Preparing to Play

- Remove the J, Q, and K cards (or face cards) from the deck. Jokers can represent 0. Aces can represent 1.
- Shuffle the remaining cards. Divide the cards equally among the players. Each player keeps their cards in a single facedown pile.
- Consider providing tools such as Number Path to 20 to support students.

- Determine how much time to allow for each game and what will signal the end of the game.

Teacher Tip

Before beginning small group rotations, consider spending a few minutes explaining and modeling the addition game with the whole class. This piques student interest and engagement and sets all students up for success when they play without teacher support.

Playing the Game

- Each player takes two cards off the top of their pile and places them faceup.
- The players each add the values of their cards and state the total. Each player then checks the other player's total.
- The player with the greater total takes all the cards played and places them at the bottom of their own pile.
- If the totals are the same, another Top It round ensues. This second round is played,

and the player with the greater total takes all the cards played from both rounds.

- The player with the most cards at the end of the designated time wins.

Variations

Engage students in work with more addends by having them choose three or more cards (e.g., $3 + 4 + 7$).

Solve a Task

Materials

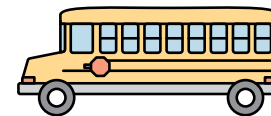
- Solve a Task Student Page

Students work with a partner to solve a multi-part task involving addition within 20. The important information about the problem is presented in a table. Students solve three problems related to the given context. The problems require students to think critically about how to use the given information to determine a solution.

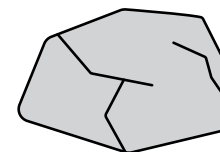
Application | Solve a Problem

Word Problem Cards

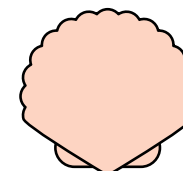
- 1 There are 8 people on a bus. 2 more people get onto the bus. Then 6 more people get onto the bus. How many people are on the bus now?



- 2 Max gets 9 rocks. He gets 4 more. How many rocks does Max get?



- 3 Zan finds 7 shells. She finds 8 more. How many shells does Zan find?



Application | Number Path to 20

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----

Answer Key

Solve a Problem

1. $8 + 2 + 6 = 16$

There are 16 people on the bus.

2. $9 + 4 = 13$

Max gets 13 rocks

3. $7 + 8 = 15$

Zan finds 15 shells

Solve a Task

1. 10 students have a dog, fish, or bird.

2. Yes, I agree; shows appropriate work

3. 3 students do not have pets.

Student Edition | Printable Pages for Students

NAME _____

DATE _____

Application | Solve a Problem

Problem Number _____

Read

Draw

Write

Application | Play a Game

Game Instruction Card

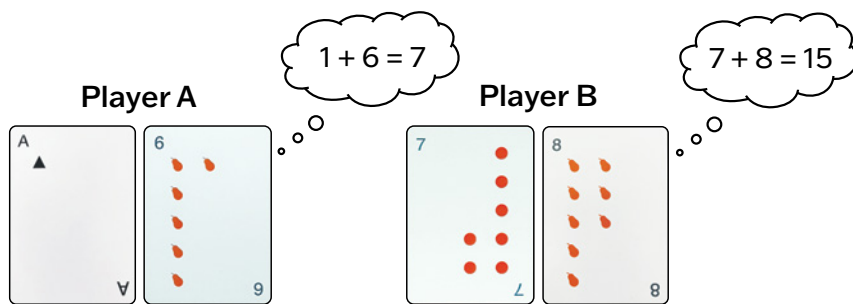
Addition Top It

What You Need

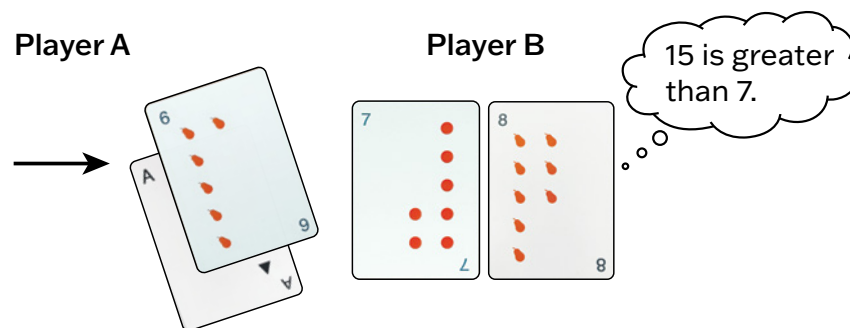
- *Eureka Math*² cards (or a deck of cards) with the J, Q, and K cards removed. Jokers can represent 0. Aces can represent 1.
- Number Path to 20 (optional)

How to Play

1. Mix up the cards. Deal the same number of cards to each player. Put the cards into a stack facedown.
2. At the same time as the other player, turn over 2 cards.
3. Add the numbers. Say the total.



4. If you have the greater total, take all the cards. Put them at the bottom of your stack.



If the totals are the same, it is time to top it! Play another round. The player with the greater total takes the cards from both rounds.

How to Win

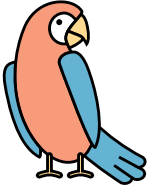
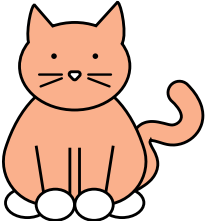
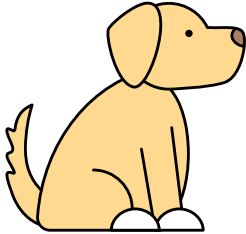
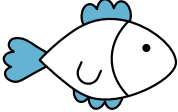
The player with the most cards at the end of the game wins.

NAME _____

DATE _____

Application | Solve a Task

Pets Students Have

				No pets
1	7	6	3	

- 1 Each pet belongs to a different student.
How many students have a dog, fish, or bird?

NAME _____

DATE _____

Application | Solve a Task

2

There are 13 pets with four legs.
Do you agree? Show how you know.

3

There are 20 students in the class.
How many students do not have pets?