



ZOO KEEPER



MATH ALIVE

FIELD GUIDE



123 Boot Camp Activities with Tech

A Brain-Based Supplemental
Curriculum for
Pre-K & Kindergarten Math

Standards-Aligned

Math
alive®





MY PRE-CAMP CHECKLIST

All of the tasks below are explained in your Zoo Keeper 123 Boot Camp™, which is found in the Math alive Zoo Keeper Edition software menu.

- ☐ Read the Welcome and Overview in your Zoo Keeper 123 Boot Camp.
- ☐ Watch the How to Use Zoo Keeper 123 Boot Camp video that is referred to on page 1.
- ☐ Plan a few days before Zoo Keeper 123 Boot Camp to complete baseline assessments to measure your students' knowledge of:
 - Number Recognition
 - Number Writing
 - Counting to 20
- ☐ Learn about the optional My Math alive Student Journals on page 6.
- ☐ Prepare the Math Centers that will be introduced in Week 3 of Zoo Keeper 123 Boot Camp.
- ☐ Set up your Math alive Zoo Keeper Kit.
 - Install software (refer to your Quick Start Guide).
 - Set up your kit and watch the Training Videos on the Main Menu (or, you can watch them online at: <https://alivestudiosco.com/zoo-keeper-training/>)
 - Hang up your Alive Studios' Hundreds Chart and Zoo Map.



FIELD GUIDE

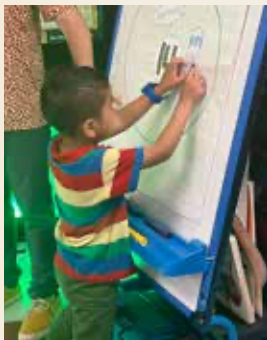
At a Glance



TYPICAL DAY

Do this for each number, 0-20:

1. Play the Zoo Crew Counting Song (up to 20)
2. Review Numbers 0-20
3. Introduce Number with Circle Chart
4. Explore Number with Math alive
5. Explicitly Model Number Formation
6. Do Small Group Activity (5 to choose from)
7. Optional: Introduce Math alive Journals and award students with number sticker.
8. In Week 3, introduce the Math Centers.

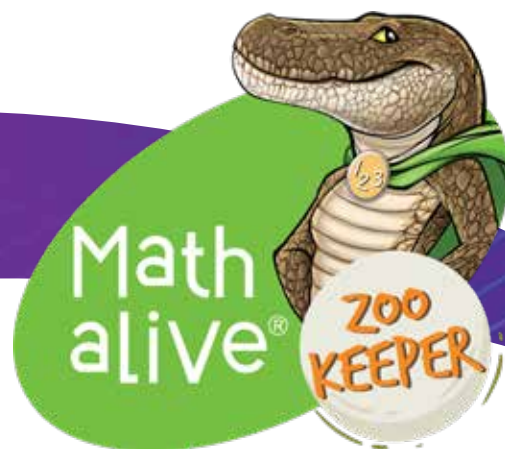


ZOO BABY NUMBER PARADE

At the completion of Zoo Keeper 123 Boot Camp, you will celebrate with a Zoo Baby Number Parade and will present the students with Zoo Keeper 123 Boot Camp Certificates!



Aligned to state standards for kindergarten
Effective for Pre-K to Second Grade



Number Playground

Let's explore and play in the Number Playground module!



The Number Playground module allows teachers a creative space to come up with their own activities using number cards. We provide several suggestions to get your creativity flowing!

In the Number Playground module of Math alive, students will use Math alive cards to openly explore numerals and quantities of animals. Students can place up to four cards on the tracking mat at a time to do the following activities. This module is open to the imagination of you and your students.

**Want to share your creative ideas for Number Playground?
Tag us @AliveStudiosZoo on Instagram or Facebook!**

Number Playground

Number Playground Quick Overview

- Number Playground starts in Animal Mode so that when you show a Number Card, that number of animals will appear. (e.g. Hold a number three card and three dolphins will appear.)
- To toggle between seeing animals or numbers, simply use the Change to Animal/Number Mode button.
- The animal habitat printed on the physical card determines which animals will appear. Each habitat has 1 to 7 animals.
- Use the 10-frame button to turn on/off frames.
- Use the 10-frame buttons that appear on the cards to control the 10-frame specific to that card.
- Students can click individual animals to count them. With 10-frames ON, click-to-count is forced left to right and top to bottom.
- The Video Card can be laid down beside a single Number Card to play a video of the animal displayed on the card while in Animal Mode.
- You can also use a dry erase marker on your Custom Cards for additional activities. They will not trigger any 3D Augmented Reality (AR) magic, but your Document Camera will see them. (e.g. These are great for numbers higher than 20, greater/less than, or other ideas.)

Here are the cards you can use in Number Playground:

- **Number Cards**
- **Video Card**
- **100 Card**
- **Custom Cards**



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Math
alive®

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Math Games & Activities

86 Games and Activities aligned to math standards

Number
Playground



Math
Games &
Activities



Building
Number
Sentences



1 2 3

Unit 1
Numbers and
Number Sense



Unit 2
Computation



Unit 3
Data and
Probability



Unit 4
Patterns



Unit 5
Geometry



Unit 6
Measurement

Unit 1

Numbers and Number Sense

³ three Number Recognition

Exploring Numbers



This symbol means this is an Augmented Reality activity and it needs the "3D" Augmented Reality Cards and Doc Camera.

Exploring Numbers (Augmented Reality) Using Number Cards



1, 2, 3, ... Counting

- 1's - Edie's Bridge Builder
- 2's - Frankie's Lily Pad Leap
- 3's - Jumpin' James
- 5's - Diving Dana
- 10's - Katie's Rock Hop
- Random



Writing

- Writing - Writing and Learning about Numbers

3 1 2 Place Value

- **Base Ten** - Exploring the Building Blocks of the Number 10
- **Largest Number** - Identifying the Largest Number in a Set
- **Smallest Number** - Identifying the Smallest Number in a Set

< > Comparing Numbers

- **Objects** - Eat with Amos
- **Numbers** - Eat with Amos 2

Unit 2

Computation

2+3 4+1 Decomposition

- **Making Combinations** - Use Surfboards to Make Combinations

- Subtraction

- **Altogether** - Barnyard Bonanza 2
- **Number Line** - Katie's Rock Hop 2
- **Missing Number** - The Math Train 2



Addition

- **Altogether** - Barnyard Bonanza
- **Number Line** - Frankie's Lily Pad Leap 2
- **Missing Number** - The Math Train

Unit 2

Computation

K.OA.3, K.OA.4

$2+3$

$4+1$

Decomposition

Prep

In the **Decomposition** activity of Math alive, students will practice making number combinations to show the various ways a number can be broken down into two parts.

Teach

- Read the number on the sign in the center of the screen.
- Click and drag the surfboards to each side of the screen to show the different combination of numbers you can use to total the center number.
- Click the green checkmark at the bottom of the screen to add the combination of numbers to the possible answers on the sign on screen.
- Continue creating different parts of the whole number until all possible combinations have been found.

Unit 2

Computation

K.OA.1, K.OA.2, K.OA.5,
1.OA.1, 1.OA.6

Addition

Prep

In the **Addition** activity students will practice solving addition problems in different ways by counting, grouping, and more.

Teach

- In the **All Together** activity students will solve addition problems by moving groups of animals together to create one group.
- To help create the whole from the two parts, click on each animal to move them into the pen together and then count the total number.
- In the **Number Line** activity students will use a number line to solve addition problems by dragging the correct number to the answer box in the equation.
- To help find the answer use the number line.

Continued

- Click on Frankie Frog to make him hop the correct number of spaces to find the answer.
- In the **Missing Number** activity students will use groups of trains to solve and find the missing number in the addition problem at the top of the screen.



Unit 2

Computation

K.OA.1, K.OA.2, K.OA.5,
1.OA.1, 1.OA.6



Subtraction

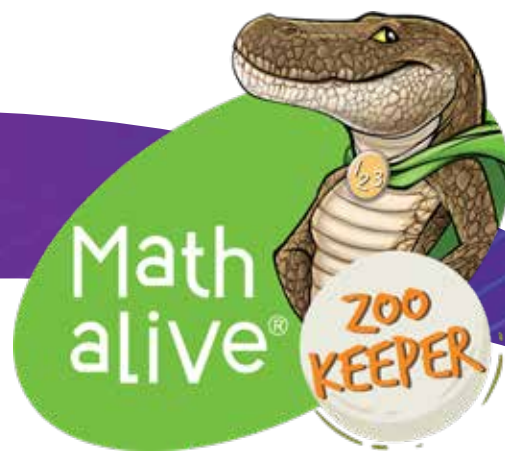
Prep

In the **Subtraction** activity students will practice solving subtraction problems in different ways by counting, taking away, and more.

Teach

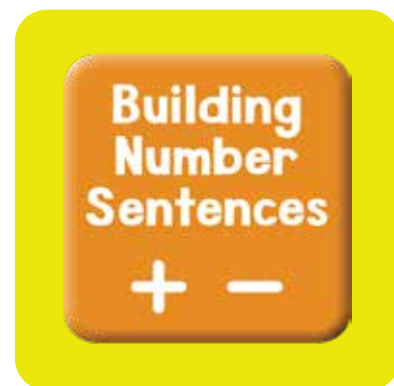
- In the **Take Away** activity students will practice solving subtraction problems by dragging the correct number to the answer box in the equation.
- Click and drag the correct number of animals out of the pen based on the second number in the equation. The remaining animals in the pen will match the correct answer to solve the equation.
- Drag the correct number into the answer box to finish the equation.
- In the **Number Line** activity students will use a number line to solve subtraction problems by dragging the correct number to the answer box in the equation.
- Click on Katie Kangaroo to make her jump the correct number of spaces back to find the answer.
- Drag the correct number into the answer box to finish the equation.
- In the **Missing Number** activity students will practice solving subtraction problems by dragging the correct number to the box in the equation.
- Slide the blue train cars through the tunnel to show the number of red cars remaining. The remaining cars will be the answer to the missing number equation.
- Drag the correct number into the answer box to finish the equation.

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Building Number Sentences

Let's practice addition and subtraction with 3D numbers and animals!



The Building Number Sentences module gives teachers the ability to introduce and practice Addition, Subtraction, and Missing Number skills. The Addition and Subtraction activities require students to build number sentences from left to right using Number and Symbol cards.

Each activity will provide students with immediate visual and audio feedback for correct as well as incorrect answers. Explore the buttons on the bottom of the screen to learn even more!

The Missing Number activity presents students with number sentences that are missing one number. Students must present the correct number card to complete the sentence.

Building Number Sentences

Building Number Sentences Quick Overview

- You can place your Building Number Sentences overlay on your tracking mat to help students position the cards more easily. See below.
- Building Number Sentences starts in Animal Mode so that when you show a Number Card, that number of animals will appear. (e.g. Hold a number three card and three dolphins will appear.)
- To toggle between seeing animals or numbers, simply use the Change to Animal/Number Mode button.
- The animal habitat printed on the physical card determines which animals will appear.
- Build number sentences left to right with your plus or minus cards.
- When a number sentence has been built correctly, the Read to Me button will appear. Click it to hear the number sentence read.
- Use the 10-frame button to turn on/off frames. Then, use the 10-frame buttons that appear on the cards to control the 10-frame specific to that card.
- Students can click on individual animals to count them. With 10-frames ON, click-to-count is forced left to right and top to bottom.
- In the Missing Number activity, the buttons on the bottom of the screen allow teachers to limit the number cards from 0-5, 0-10, etc.



ANIMAL HABITATS AND FACTS

The Alive Studios' Zoo has 26 animals from 7 different habitats. As your students are learning math concepts, they are also learning about our animals in the zoo. Below are some facts that will help you teach your students more about these animals.

Swamp Habitat

A swamp is a warm and humid wetland that has trees, bushes, grass, and mud. You can find swamps along rivers or shores of lakes and ponds in almost every continent except Antarctica. Swamps are home for several animals such as alligators, turtles, and snakes as well as many different types of plant life. There are freshwater and saltwater swamps. The world's largest swamps are found along major rivers such as the Amazon, the Mississippi, and the Congo.



Alligator

Alligator

Alligators live near slow moving rivers, swamps, marshes, and lakes in the Southeastern United States and in China. They like to sleep on land in the sunshine because they are cold blooded reptiles. Alligators eat fish, turtles, birds, and other small animals. Baby alligators are called hatchlings. Alligators usually live to be about 50 years old.

Savanna Habitat

Savannas are places that are covered by lots of grass. Grazing animals like zebras, gazelles, and giraffes live there. Savannas can be found on every continent except for Antarctica. The grass cannot grow there because Antarctica is covered in ice and snow all year long.



Giraffe



Lion



Zebra

Giraffe

Giraffes live in the savannas of Africa, where they eat leaves, shoots, flowers, pods, and fruits. They especially like to eat from the Acacia tree. Giraffes only need about half an hour of sleep, which they like to take in several 5-minute naps spread throughout the day. A baby giraffe is called a calf. Giraffes can live to be between 20 to 30 years old.

Lion

Lions are the second-biggest cat in the world, next to the tiger. Lions are found in the savannas and woodlands of Africa. Baby lions are called cubs, and lions live to be about 15 years old. Lions eat large animals like zebras and gazelles. Female lions, called lionesses, do all the hunting for their families. This is because they are smaller and faster, and because they don't have heavy manes like male lions. Manes are just too hot. Lions rest 20 hours a day, and are only active for about 2 hours a day.

Zebra

Zebras live in the plains, savannas, and mountains of Africa. They are related to horses, and like other horses, their babies are called foals. Zebras have unusual black and white stripes covering their bodies. Every zebra has a different pattern of stripes, so no two zebras look exactly alike. They eat a wide variety of plants, ranging from grass and shrubs to twigs and bark. Zebras usually live to be about 12 years old.