



Time of Your Life

Grades K-2

The Big Idea

This week you're going to **explore time** in different increments by lining up in **birth month order** and by **turning yourselves into the hands of an analog clock!**

Supplies You Provide

- ★ Masking tape
- ★ Paper
 - For clock: 12 sheets per clock
 - For “Hour Hand” and “Minute Hand” signs: 2 sheets per clock
 - For kids (can be scrap paper): 1 sheet per kid
- ★ Pencil: 1 per kid
- ★ Stopwatch or cell phone with a stopwatch function
- ★ Writing surface, like blackboard, whiteboard or large sheet of paper

Room Set-up:

- ★ Clear an **open floor space**, about 10 x 10 feet, to lay out a **clock face**. Optional: If space allows or if you don't have a volunteer helper, set up the Clock Numbers ahead of time as described below in All Hands on Deck.

Other Key Prep:

- ★ Clubs with enough space and volunteer helpers can play on **2 clocks** by making photocopies of the clock numbers provided.
- ★ Make **1 paper sign that reads “Hour Hand”** and **1 that reads “Minute Hand.”** Make 1 set per clock.

What's the Math?

- ★ Understanding units of time
- ★ Time measurement

Kickoff

Intro to the kids: “How do we measure time? What do we call **big amounts of time?**” (Discuss. Answers can include a year, decade (10 years), century (100 years), or millennium (1,000 years).) “What do we call the **tiny amounts?**” (Discuss. Answers can include days, hours, minutes, or seconds.) “What tools do we use to keep track of time?” (Discuss. Answers can include calendars, clocks, etc.) “Let’s see how well we can measure time!”

Birthday Bar Chart (10-15 minutes)

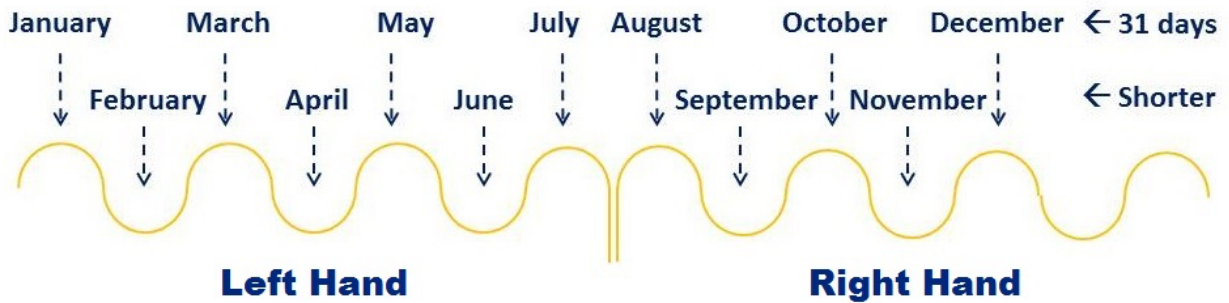
Intro to the kids: “Months are about 4 weeks long and divide the year (some kids may remember this from Week 2 Planet Party). Do you know the order of months in a calendar?” (Discuss.) “If we look at all our birthdays, **which month** do you think will have the most birthdays?” (Take guesses!)

1. Have everyone separate into groups based on their **birth month**.
2. Tell kids they’ll be forming a **human bar chart**. Each month will get its own line or “bar” of kids, and months with more kids will have longer bars. →
3. When everyone is lined up, see **which bar is longest** – that’s the most common birth month for your club!



Bonus (optional): See how quickly the kids can line up in **date order within each month** (with the first of the month at the front).

Party Fun Fact: Teach the kids the “Knuckle Rule.” **Make 2 fists** and put them next to each other, **knuckles facing up**. Name the months starting with January on the leftmost knuckle. All **knuckle bumps** are the 31-day months, and the **dips** in between have 30 days (or 28 for February).



A Touch of Class: “Time flies when you’re having fun and doing math! And it wasn’t too different from problems in your math book that ask you to group like items together or list things in order. And when you get older, you’ll learn all about bar charts!”

Time for a Birthday (10 minutes)

If you’re short on time, skip ahead to All Hands On Deck

Intro to the kids: “Let’s first look at time on a **digital clock**, like you see on microwaves, stoves, and smart phones.” (Show the kids this graphic)

0 9 : 1 4

“Let’s see what clock time our **birth dates** make: the time that shows the month and day of your birthday. This clock here shows September 14 because September is the 9th month of the year, and then the 14 shows it’s the 14th day.”

1. Hand each kid a piece of paper and a pencil.
2. Ask the kids to figure out the number of their **birth month**. If needed, you can list the months in order (Jan = 1, Feb = 2, etc.) while kids count on their fingers. Write that number as the “hour.”
3. Then ask the kids to put the **birth day** as the “minutes.”

Ask the kids:

- ★ “Were you all able to come up with a time that shows your birthday? (The answer should be yes.)
- ★ “And can **any birthday** work?” (Discuss. Let the kids figure out that **yes**, any birthday can have a matching clock time. Why? The hours go up to 12, so all 12 months are covered. And minutes go up to 59, which covers all dates since no month has more than 31 days.)
- ★ “Your birthday time shows on the clock twice a day. Are you **awake** at both times or just one?” (Discuss. June (6 hour), July (7 hour), August (8 hour) and September (9 hour) birthdays are times when kids might be awake in the morning and evening!)

To the kids: “Now, let’s find out what time our names make!”

- ★ Ask kids to count how many letters are in their first names. They should use that number as the hour.
- ★ Then ask the kids to count how many letters are in their last names for the minutes. For example, the name Jonathan Smith would be: **08:05**.
- ★ If any kid has more than 12 letters in his/her **first name**, use 12 for the hour and **add the extra letters to the last name** for additional minutes!

Bonus (optional): Let the kids wrangle with these before giving hints, so they have a chance to get the answer and feel that victory.

- ★ “What time has the same number in all 4 places?” (Answer: 11:11)
- ★ “What’s the largest number you can make using the digits on the clock?” (Answer: 12:59)
- ★ “What’s the smallest number you can make?” (Answer: 01:00)

All Hands On Deck (15-25 minutes)

Intro to the kids: “Not all clocks look like this digital one. Some clocks have hands that spin in a circle and point to numbers to tell us the time. Those are **analog clocks**. They came long before electricity and digital clocks!”

Review briefly how the short and long hands of an analog clock work. You can show kids this photo, if you don’t have a clock in the room.

- ★ The short (“hour”) hand takes an hour to advance from one number to the next number (for instance, from 1 to 2).
- ★ The long (“minute”) hand takes 5 minutes to advance from one number to the next number, and it takes an hour to go around the clock once.



Ask the kids:

- ★ “What time does the clock say when the minute hand is on 12 and the hour hand is on 10?” (Answer: 10:00)
- ★ “And how do we read the clock when the hour hand points halfway between 10 and 11, and the minute hand is on 6?” (Answer: 10:30, or “half-past 10”)

To the kids: “Today you’re going to **be the hands of a clock** and race to show the time!”

1. **If you haven’t done so already, let the kids help you tape the Clock Number printouts to the floor** in a 10-foot circle like a giant clock. If you have the space, lay out a **second identical clock** next to it.
2. **Mark the center** of each clock with a small masking tape X.

CLUBS WITH 2 CLOCKS

1. Divide the kids into **2 teams**. Each team lines up behind a clock.
2. The **first 2** contestants from **each team** decide who will be the hour hand and the minute hand. Give them the “Hour Hand” or “Minute Hand” signs as a reminder.
3. Now the race begins! **Call out** a whole-hour time: “6 o’clock!”
4. The 2 contestants from each team **lie face up inside their clock** as the “hands,” each pointing to the right number. The minute-hand people extend their arms to be longer than the hour hands.
5. The **first team** to position themselves correctly **scores a point!** Record on your large writing surface or sheet of paper.
6. **Repeat** with the next pair of contestants from each team. Assign their roles right before they start, otherwise they might forget.
7. Let the spectators call out whole-hour and half-hour times for the contestants to make.
8. Times to **avoid for overcrowding:** 12:00, 5:30, 6:30.
9. When everyone has gone at least once, see who won!



CLUBS WITH 1 CLOCK

- ★ Follow steps 1-9 above, except when you call out a time, start your stopwatch and hit stop when the players make the correct time. Record each pair’s time on your large writing surface or sheet of paper. The winning pair has the fastest time!

Bonus (optional): Try **quarter-hours** like 4:15!