

# ADVANCED LEARNING LABS

Collaboration between NC Department of Public Instruction and AIG Teachers across the state

TO ENGAGE, ACTIVATE, AND GROW OUR STUDENTS

GRADES

K-1

## Time



### ENGLISH LANGUAGE ARTS

Time influences our schedule every day. It starts when we wake up and ends when we go to bed.

- Do you have a bedtime set by your family?
- Do you think kids should have a set bedtime?
- Is the time you go to bed important, and who should make this decision?

Decide if kids should or should not have a bedtime. Create an advertisement to convince parents and one advertisement to convince kids about your opinion on bedtimes. Be sure to include at least three reasons that will convince your audience.



### SOCIAL STUDIES

Communities change over time. Examine this photograph from the past of a bookmobile in Rockingham County, NC: <https://digital.ncdcr.gov/digital/collection/p249901coll36/id/576>

What do you notice? wonder?

Compare this photo to your school or town library.

- What is the same? different?
- Why do you think some things have changed?
- How might the perspectives of the librarians and the children be different?
- What might libraries be like in the future?

Design your dream library of the future. You can draw a picture or diagram or write about your dream.



### SCIENCE

Seasons are a way we mark the passage of time in a year. Watch this time lapse video of a year in a forest: <https://thekidshouldseethis.com/post/a-forest-year>

Watch the video again and pause when you notice the season is changing.

- What clues does nature give that the season is changing?
- Would you like to live in this place? Why or why not?

Adopt a tree in your neighborhood to observe for a year. Each week, make detailed observations about your tree in a science notebook. Draw diagrams. Make notes of changes including: animals you observe, the weather, and what you smell, hear and feel. At the end of the year you will have documented how your tree changes over time.



### MINDFULNESS

The time we spend chewing our food is rarely something people think about, but when you slow down, you experience the food in a new way.

Find a food you like to eat. Before you begin eating, pause to smell it. Put it in your mouth, but before you begin chewing, think about the taste and texture. Chew it slowly. Close your eyes and consider the taste. Swallow your bite, and notice what flavors linger in your mouth.

- How is eating different when you go slowly?
- When you stopped to notice your senses, how did it change the experience of eating?
- What would it be like to spend more time eating all your meals?
- What foods do you think would be most enjoyable to practice mindful eating?



## LOGIC PUZZLE

### Challenge 1:

At what exact times during the day are the hour and the minute hand pointing to the same number on the clock? This means the hands are covering each other. Is there a pattern?

*Starting point hint: One time this happens is at 12:00 when both hands are pointing towards the twelve.*

### Challenge 2:

At what times during the day is the time on a digital clock a palindrome? A palindrome is the same when you read it forward and backward. Examples include 12:21 and 5:05.

*Tip: Look at a clock or use a play clock to help you figure these out!*



## FIELD STUDIES

Visit a clock repair shop: <https://vimeo.com/34254295>

- What do you notice? wonder?
- How did Mr. Sutton learn to take care of clocks?
- Is this a career you would like to have? Why or why not?

What types of clocks do you have in your home? Observe one for 15 minutes. Write or draw what you observe.

If you have a broken clock or watch, ask an adult if they can help you take it apart. Taking apart unused things helps us understand how they work. Draw or describe what you find inside.

- How do these activities help you understand how a clock works to tell time?
- How do you think clocks will change in the future?



## RESEARCH EXPLORATIONS

How does a shadow change over time? Measure your shadow throughout the day.

1. Go outside every hour and stand in the same place.
2. Have a helper trace your shadow with chalk.
3. Mark the time by each tracing.
4. Measure your shadows and record your data on a piece of paper. (Example 9:00-10 inches)

What can you say about how the time of day changes your shadow?

- At what time was your shadow the tallest? shortest?
- Did your shadow change in other ways?
- Why do you think your shadow changes as the day goes by?
- Do humans use shadows to measure time? Describe a time you have seen this.



## MATH

Use the following diagram to show how you spend time during a school day. Color the hour blocks:

- \*sleep-blue
- \*activities-green
- \*school-yellow
- \*family time-red
- \*free time- purple

Midnight

12	1	2	3	4	5	6	7	8	9	10	11
12	1	2	3	4	5	6	7	8	9	10	11

Noon

- How many hours do you sleep? How many hours are left?
- How many hours do you go to school? Is that more or less than family time?
- What activity do you do the most and the least?
- If you could change one thing, what would you change about how you spend your time?

Share with your family and compare your use of time to theirs.



North Carolina Department of  
**PUBLIC INSTRUCTION**



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**K-12**

## Time Reference Guide

### **K-1 Logic Puzzle:**

Solutions:

Challenge 1

12:00, 1:05, 2:10, 3:15, 4:20, 5:25, 6: 30, 7:35, 8:40, 9:45, 10:50, 11:55

Challenge 2:

1:01, 1:11, 1:21, 1:31, 1:41, 1:51,

2:02, 2:12, 2:22, 2:32, 2:42, 2:52

3:03, 3:13, 3:23, 3:33, 3:43, 3:43

4:04, 4:14, 4:24, 4:34, 4:44, 4:54

5:05, 5:15, 5:25, 5:35, 5:45, 5:55

6:06, 6:16, 6:26, 6:36, 6:46, 6:56

7:07, 7:17, 7:27, 7:37, 7:47, 7:57

8:08, 8:18, 8:28, 8:38, 8:48, 8:58

9:09, 9:19, 9:29, 9:39, 9:49, 9:59

10:01, 11:11, 12:21

### **2-3 Logic Puzzle:**

Solution: <https://www.aimsedu.org/2013/04/08/timemarches-on/?highlight=time>

### **4-5 Logic Puzzle:**

Solution is included in the video: <https://www.youtube.com/watch?v=KM5KUlyAJ9I>

### **6-7 Logic Puzzle:**

Solution: 4:22

### **8-9 Logic Puzzle:**

Solution: 4:00

### **10-12 Logic Puzzle:**

Solution: Larry goes to bed at 9:00 pm.

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## Time NC Standards Alignment

Grade Span	English/ Language Arts	Social Studies	Science	Math
<b>K-1</b>	W.1.1	1.H.1.1 <b>1.H.1</b> <b>1H.1.2</b>	K.E.1.1 K.3.1.3	NC.1.MD.4
<b>2-3</b>	RL and RI.3.10	3.H.2.1 <b>3.I.1.10</b> <b>3.H.1.3</b>	2.E.1.3 2.E.1.4	NC.3.MD.3
<b>4-5</b>	RL and RI.5.10	EX.5.G.1.2 <b>5.I.1.4</b> <b>5.G.1.4</b>	5.E.1.1	NC.5.MD.2
<b>6-7</b>	W.6.3	7.G.1.2 <b>7.G.1.3</b>	7.P.1.3	NC.7.RP.1 NC.7.RP.3
<b>8-9</b>	RL.8.2	FPPFL.2.4 <b>EPFMCM.3.4</b>	EEn.2.1.3	NC.M1.A-CED.1
<b>10-12</b>	W.9-10.3	AH2.H.3	EEn.2.5	NC.M1.S-ID.1