

Clock Watch Detectives

Plan observations and measure how long an investigation lasts.

3.1.b.v "planning and carrying out investigations measure elapsed time"

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each clock time in the passage. Number the times 1, 2, and 3 to show the order of Jada's investigation.

Ice Cube Check

- ① Jada planned an investigation to find out whether sun or shade changes how fast an ice cube melts. She used two same-size cubes on two plates. Before starting, she wrote a question and chose a timer. She also planned to check both cubes at the same times. Keeping the cubes alike helped her make a fair comparison.
- ② At 1:10 p.m., Jada placed one plate in sunlight and one under a shady tree. She started her timer right away. At 1:25 p.m., she looked at both cubes and wrote what she saw. She checked again at 1:40 p.m. At each check, she recorded the clock time, the place, and whether each cube was still whole.
- ③ Measuring elapsed time tells how long something takes. To find it, compare a start time and an end time. For example, a timer that starts at 9:00 and stops at 9:10 shows ten minutes. Jada's notes will help her compare changes at matching times rather than guessing about which cube changed faster. She can study her notes carefully.

2

ANSWER WITH EVIDENCE

Use the passage

1

What time did Jada start her investigation?

2

How many minutes passed from 1:10 p.m. to 1:25 p.m.?

3

How many minutes passed between Jada's first check and her second check?

4

How many minutes had passed when Jada made her second check at 1:40 p.m.?

3

YOUR TURN

Your own words

Plan a safe 20-minute classroom investigation, such as watching an ice cube melt. Fill in the table with three check times, the elapsed time for each check, and what you will observe.

INVESTIGATION	CHECK TIME	ELAPSED TIME	WHAT I WILL OBSERVE

PART 1 • READ AND MARK

Underline each clock time in the passage. Number the times 1, 2, and 3 to show the order of Jada's investigation. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What time did Jada start her investigation?	1:10 p.m.
2	How many minutes passed from 1:10 p.m. to 1:25 p.m.?	15 minutes
3	How many minutes passed between Jada's first check and her second check?	15 minutes
4	How many minutes had passed when Jada made her second check at 1:40 p.m.?	30 minutes

PART 3 • YOUR TURN (SAMPLE ANSWER)

INVESTIGATION	CHECK TIME	ELAPSED TIME	WHAT I WILL OBSERVE
Ice cube melting	10:00 a.m.	0 minutes	Put the ice cube on a plate and look at it.
Ice cube melting	10:10 a.m.	10 minutes	Observe and write what has changed.
Ice cube melting	10:20 a.m.	20 minutes	Observe and write the final change.

Accept equivalent clock-time calculations for the questions. For the open task, accept any safe investigation with three time-ordered checks and accurate elapsed times, including a start check and an end check 20 minutes later.