Teacher's Key

Understanding Atomic Habits: Ideas, Evidence, and Limits (Level C1)

Vocabulary Matching

1 marginal = **N**
2 negligible = **A**
3 compound = **H**
4 plateau = **L**
5 latent = **G**
6 trajectory = **M**
7 premise = **I**
8 aspirational = **E**
9 bolster = **D**
10 automaticity = **O**
11 entrenched = **J**
12 conducive = **K**
13 friction = **B**
14 robust = **C**
15 anecdotal = **F**

Fill in the Blank

1 marginal
2 negligible
3 plateau
4 latent
5 trajectory
6 premise
7 aspirational
8 bolster
9 automaticity
10 entrenched
11 conducive
12 friction
13 robust
14 anecdotal

True or False

1 **True.** This is the arithmetic in Clear's central image.
2 **False.** It melts at 32 degrees, after showing no change from 25 to 31.
3 **True.** The difference, he says, is the daily process.
4 **False.** Clear argues that systems matter more than goals.
5 **True.** Those experiments did not reproduce the 2011 result.
6 **False.** It reported that identity wording raised turnout in two US elections.
7 **False.** The loop has four steps: cue, craving, response, and reward.
8 **True.** This design cannot rule out other causes.
9 **True.** It comes from Maxwell Maltz, a plastic surgeon.
10 **False.** The reading says the team disputed the finding.

Language Focus: Conditionals: Real, Hypothetical, and Inverted

Example answer: **Had the team measured** behavior directly, the results would be easier to trust.

Comprehension Questions: Model Answers

1 If you improved by 1 percent every day, you would be about 37 times better after a year, and if you declined by 1 percent, you would end up almost at zero. The ice cube example adds the point that results lag behind effort: nothing visible happens from 25 to 31 degrees, and then the ice melts at 32.

2 Winners and losers often share the same goals, so the difference is the daily process. Goals can be reached without lasting change, while a good system keeps producing results.

3 A pilot who changed the heading by about 3.5 degrees would land in Washington instead of New York, and a small change in daily habits alters your trajectory in the same way. The premise underneath is that your current habits predict your future better than your ambitions do.

4 Clear says that every action is a vote for the person you want to become. Bryan and colleagues reported in 2011 that thinking of oneself as a voter raised turnout in two US elections, but larger field experiments in 2016 and 2020 found no effect from the same wording. The idea is therefore appealing but not well supported by that study.

5 A cue triggers a craving, the craving prompts a response, and the response delivers a reward. Bad habits become entrenched because their rewards arrive immediately while their costs come later, so the loop keeps running.

6 Water sales rose by about 26 percent and soda sales fell by about 11 percent over three months. The study compared sales before and after in one cafeteria that had already added traffic-light labels, so it cannot rule out other causes, even though a follow-up found red drinks fell from 26 to 17 percent of beverage sales over two years.

7 Robust: the 2006 meta-analysis of 94 tests on if-then plans and the 2002 University of Bath experiment (91 percent against 35 and 38 percent). Less firm: the 37-times figure, which is arithmetic; the 21-day idea, which has no research behind it; and the 66-day figure, which comes from a small group.

8 The 21-day idea appears to come from a 1960 book by a plastic surgeon, Maxwell Maltz. In the 2010 study, 96 volunteers were tracked for 12 weeks, and the median of 66 days comes from the 39 whose data fitted the model well, with estimates from 18 to 254 days. Because the figure comes from a subset and includes estimates, it should not be read as a rule.

9 Open answer. A strong answer notes that the cycling story shows how success stories can hide other causes, Burkeman's objection questions whether constant optimization is desirable, and the proposed repeat shows that a famous number has not yet been tested again. Together they support a balanced judgment: useful tools, limited evidence.

10 Not Given. The reading says a preregistered repeat is proposed and that no published results were found. It does not say any repeat has confirmed the figure.

11 No. The writer says some tools rest on robust evidence and calls the book useful in parts, while questioning specific claims and the value of constant self-optimization.

12 Best answer: to warn readers about how success stories are used. The sentence follows the cycling example and points out that a single explanation is unlikely. It does not reject the book as a whole.

Notes on the Evidence

- Book and author. James Clear, Atomic Habits: An Easy and Proven Way to Build Good Habits and Break Bad Ones (Avery, published 16 October 2018). Clear's own site says the book has sold more than 30 million copies and has been translated into more than 60 languages; that is the author's figure. An encyclopedia entry gave nearly 20 million copies as of February 2024, so the reading gives no sales number. The earlier EWJ version of this unit was used as a starting point and rewritten.
- Arithmetic and examples. 1.01 to the 365th power is about 37.8, and 0.99 to the 365th power is about 0.026 (the reading says almost zero). The 3.5 degree flight example was checked by computing initial great-circle bearings from Los Angeles airport: about 65.9 degrees to New York (JFK) and about 69.3 degrees to Washington (DCA), a difference of about 3.5 degrees. This is a calculation for this lesson, not a claim from the book. The ice cube melts at 32 degrees Fahrenheit.
- Evidence. Gollwitzer and Sheeran (2006, Advances in Experimental Social Psychology): 94 independent tests, average effect d = 0.65. Milne, Orbell, and Sheeran (2002, British Journal of Health Psychology 7:163-184), University of Bath: 248 people, 91 percent in the implementation-intention group reported exercising against 35 and 38 percent in the other two groups. Cafeteria: Thorndike and colleagues at Massachusetts General Hospital; the 25.8 percent water increase and 11.4 percent soda decrease over three months come from the second phase of the two-phase study (American Journal of Public Health, 2012), after labels were already in place; the two-year follow-up (American Journal of Preventive Medicine, 2014) reports red beverages falling from 26 to 17 percent of beverage sales. Design: before and after in one cafeteria.
- Habit formation. Lally, van Jaarsveld, Potts, and Wardle (2010, European Journal of Social Psychology 40:998-1009): 96 volunteers, 84 days, 82 with enough data, model fitted for 62, good fit for 39; the 66-day median is for those 39, with a range of 18 to 254 days partly extrapolated beyond the study, and automaticity was self-reported. The earlier version said participants whose data could be modeled took about 66 days; the reading now states the subset. A 2025 University of South Australia review of 20 studies (over 2,500 participants) reported a median of 59 to 66 days and up to 335 days for some habits; it is in these notes but not in the reading. The 21-day idea comes from Maltz, Psycho-Cybernetics (1960). A preregistered near-exact replication with about 800 participants at four sites was proposed in a registered-report preprint (Peer Community In Registered Reports); no published results were found.
- Identity. Bryan, Walton, Rogers, and Dweck (2011, PNAS 108:12653-12656): three randomized experiments; two used official turnout records (California 2008, New Jersey 2009). Gerber, Huber, Biggers, and Hendry (2016, PNAS) found no effect in a large field experiment, and Gerber, Huber, and Fang (2020, Behavioural Public Policy) found none in a preregistered 2016 presidential-election replication. The reading does not say that Clear cites the voting study; it presents it as a related test of the identity idea. The earlier draft did not include this evidence.
- Cycling and other objections. Wiggins was reported by ITV in March 2017 as calling marginal gains a load of rubbish. The 2018 report of the UK parliamentary Digital, Culture, Media and Sport committee said Team Sky crossed an ethical line in using a permitted corticosteroid before the 2012 Tour; the team and the rider denied the allegations, and the reading states the finding was disputed. Oliver Burkeman, Four Thousand Weeks (2021). Only the author's book page was opened in full; other sources were read as abstracts, press releases, or search results. Vocabulary: the earlier version had 25 words; 15 remain. The earlier discussion question about Korean study routines was removed because no source in this unit supports a claim about Korea.