Interest and maturities: when debt comes due

Interest and maturities is a free 50-minute high school lesson on the cost of debt and the dates it must be repaid. Students divide operating income by interest for three airlines and a utility, then build a debt calendar from American Airlines' 10-K.

5-minute prep

- Print: one worksheet per student (2 pages, black and white, with the debt calendar grid). Print the answer key for yourself.
- Project: the slides (13 slides). The coverage cards start on slide 5.
- Read: "Teacher background in 2 minutes" below, then the discussion guidance.

Grade	High school, grades 9–12
Time	50 minutes (splits into two 25-minute blocks)
Edition	2026–27 first edition v1.0
Lesson page	cityfort.co/teachers/debt-cash-and-staying-power/interest-and-maturities

Objective

Students can work out interest coverage from a 10-K, explain what a maturity is, and read when a company's debt comes due next to the cash and credit it says it has.

Standards the lesson supports

- 7.RP.A.3 (Common Core states)
- HSN.Q.A.1 (Common Core states)
- CCSS.ELA-Literacy.RH.11-12.7 (Common Core states)

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Timing

Minutes	Step	What happens
0–6	**Warm-up**	A made-up food truck earns $12,000 a year and pays $3,000 of loan interest. How many times over can it pay the interest? (made-up numbers)
6–14	**Four words**	Interest, interest coverage, maturity and liquidity, and where a 10-K shows each one.
14–28	**Coverage for four companies**	Pairs divide operating income by interest for Delta, United, American Airlines and Duke Energy.
28–40	**Debt calendar**	Students draw American Airlines' repayments for 2026–2028 as bars, then read Delta's and United's amounts due soon next to the liquidity each company states.
40–46	**Discussion**	What does coverage measure, and what does it leave out? Describe, don't judge.
46–50	**Exit ticket**	Exit ticket (4 questions).

Materials

- The slides (projected) or the printed worksheet.
- One worksheet per student. It prints in black and white on two pages, with a blank grid for the debt calendar.
- A calculator.
- No accounts, no logins and no internet access are required. The student page is optional.

Discussion questions

1. Interest coverage below 1 means operating income was smaller than interest in that year. Which company's FY2025 figure was below 1, and what does its filing show about cash and credit it could draw on?
2. Duke Energy is a utility and the airlines are not. What else would you want to know before comparing their coverage numbers?
3. Delta's amount due within a year roughly doubled between Dec 31, 2025 and Sep 30, 2026. What does its filing say caused that?
4. A company can repay a maturing loan from cash, from new borrowing (refinancing) or from profit. Which of those do the cards mention? (Describe them. Do not judge them.)

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Adapting the lesson

English language learners: ELL: a picture of a calendar with bills due, a word bank and sentence frames.

IEP and 504 plans: IEP: the coverage table with the division set up; students divide and round. The debt calendar has the bar heights marked.

Advanced students: Advanced: the Domino's card, where notes have an anticipated repayment date and extra interest if they are not refinanced.

Extension: Students look up interest coverage on two more Cityfort pages from the unit's list. If a page leaves coverage blank, they copy the page's own note on why. They describe each in one sentence, without ranking. Read Cityfort's Learn entry What is interest coverage?

Teacher background

Interest

Interest is the yearly price of borrowed money. It appears on the income statement as interest expense, below operating income.

Interest coverage

Interest coverage = operating income ÷ interest expense. It says how many times one year's operating profit could pay that year's interest. Cityfort pages show it as a Cityfort calculation and leave it blank when it would mislead.

Maturity

A maturity is the date a loan or bond must be repaid. Every 10-K's debt note includes a table of amounts due in each of the next five years.

Liquidity

Liquidity is the cash and short-term investments a company holds plus credit lines it has arranged but not used (undrawn). Companies state it in the 10-Q or earnings release.

Refinancing

Refinancing means repaying an old loan with a new one. Many companies plan to refinance much of what comes due, and say so in their filings.

Airlines' other obligations

Airlines also hold money for tickets not yet flown and owe lease payments on planes. Each card notes what its debt figure includes.

If your class runs a stock-market simulation, these lessons can come before it: they explain what a company does and how it reports results. They do not suggest which companies to choose, and

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Cityfort does not run, rank or judge simulation picks.

Teaching notes

- Students may treat a coverage figure as a grade. Keep it as a measurement of one year: profit compared with interest.
- The dates differ on purpose: coverage is FY2025, amounts due and liquidity are Sep 30, 2026. Make students write the date beside every number.

Standards supported

This lesson supports these outcomes. It does not cover all of any standard.

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- Common Core 7.RP.A.3 (used as review): coverage as a ratio; amounts due compared with liquidity.
- Common Core HSN.Q.A.1: ratios ("times") kept apart from dollars; dates kept with every figure.
- Common Core RH.11-12.7: a 10-K maturities table, a drawn bar chart and stated liquidity combined.

Teacher background in 2 minutes

- Interest coverage = operating income ÷ interest expense for one year. Some pages use net interest (interest paid minus interest earned), and each card says which.
- Coverage below 1 means one year's operating income was smaller than that year's interest. Its filing shows the cash and credit it reported.
- Utilities borrow heavily to build power plants and lines, and their prices are set by regulators. That is why comparing a utility's coverage with an airline's needs care.
- Maturities: every 10-K's debt note has a table of principal due in each of the next five years and after.
- Liquidity: cash, short-term investments and undrawn credit lines. Companies state it in their 10-Q or earnings release.
- Cityfort pages leave coverage blank when it would mislead, for example when interest is not shown separately or when one-time gains inflate profit.

Materials

- Slides (PowerPoint, 13 slides). Every table is a real table, not a picture.
- Student worksheet with exit ticket and debt calendar grid (2 pages).

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- Answer key.
- Calculators.

0–14 minutes: Warm-up and four words (slides 1–4)

- Show the food truck. The numbers are made up, and the slide says so.
- $12,000 ÷ $3,000 = 4 times. In three years the $20,000 must be repaid, from savings, profit or a new loan.
- Define interest, interest coverage, maturity and liquidity. Students copy them into Part B.

14–28 minutes: Coverage for four companies (slides 5–8)

- Pairs fill in the Part C table and round to one decimal place (two for Duke Energy, as its page shows).
- Ask: "What does a result below 1 mean?" One year's operating income was smaller than that year's interest.

28–40 minutes: Debt calendar (slides 9–11)

- Students draw American Airlines' principal due in 2026, 2027 and 2028 as three bars on the grid in Part D.
- Then they read Delta's and United's amounts due soon next to the liquidity each states, in Part E.
- Remind them the dates differ: the maturities table is from Dec 31, 2025; liquidity is from Sep 30, 2026.

40–46 minutes: Discussion (slide 12)

- Use the discussion questions below.
- If students call an airline "safe" or "in danger," ask: "Which number and which date are you describing?"

46–50 minutes: Exit ticket (slide 13)

- Students answer the four exit-ticket questions on page 2 of the worksheet.

Splitting into two 25-minute blocks

Block 1 covers minutes 0–25, ending after the coverage table. Block 2 opens with a 3-minute recap, then the debt calendar, discussion and the exit ticket.

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Guidance for the discussion questions

Question 1. American Airlines, about 0.9 times in FY2025. Its 10-Q states $11.8 billion of liquidity on Sep 30, 2026, including $3.5 billion of undrawn credit. In 2026 it prepaid $1.0 billion of 8.50% notes and extended $3.1 billion of revolving credit to March 2031.

Question 2. How the business earns (a regulated utility versus airlines), how steady its income is, and how much it borrows to build. Accept any reasonable question students would ask of the filings.

Question 3. A refinanced $1,250 million term loan now matures in September 2027, so it moved inside the one-year window.

Question 4. Cash on hand and credit lines (liquidity) on the Delta, United and American cards, and refinancing on Delta's card. Accept descriptions; do not accept "safe," "risky" or "in trouble."

Sentence frames

- "In FY____, ____'s operating income covered its interest about ____ times."
- "By its 10-K, ____ had $____ of principal due in ____."
- "On ____ (date), ____ said it had $____ of liquidity, including ____."

Differentiation: ELL

- A calendar picture with bills due in different years.
- Word bank: interest, operating income, coverage, times, principal, maturity, due, refinance, liquidity, credit line, undrawn, utility.
- Sentence frames (above). Pair ELL students with a partner for Part C.

Differentiation: IEP

- Part C with each division set up; students divide and round.
- Part D with the bar heights marked on the grid.
- Calculator allowed. Large print: enlarge the worksheet when printing (tabloid paper works well).
- Shorter exit ticket: questions 1 and 2 only.

Differentiation: Advanced

- Domino's card (Sep 6, 2026): $1,319 million of 2017 and 2018 notes have a July 2027 anticipated repayment date. Domino's said in its Q3 FY2026 10-Q (Oct 13, 2026) that it expects to refinance them; if it does not, at least 5% a year of extra interest accrues. FY2025 interest coverage: about 4.9 times.
- Ask: what is an "anticipated repayment date," and what does the filing say happens if the notes are not refinanced by then? Describe it in two sentences.

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student page

Scan the code or type: **cityfort.co/class/maturities**

Sources

1. S1: Delta: Form 10-K, fiscal year 2025 (ended Dec 31, 2025), Delta Air Lines, Inc. (SEC EDGAR), Feb 11, 2026. https://www.sec.gov/Archives/edgar/data/27904/000002790426000013/dal-20251231.htm
2. S2: Delta: Form 10-Q, Q3 FY2026 (quarter ended Sep 30, 2026), Delta Air Lines, Inc. (SEC EDGAR), Oct 9, 2026. https://www.sec.gov/Archives/edgar/data/27904/000002790426000038/dal-20260930.htm
3. S3: Delta: September quarter 2026 earnings release (Form 8-K, Exhibit 99.1), Delta Air Lines, Inc. (SEC EDGAR), Oct 9, 2026. https://www.sec.gov/Archives/edgar/data/27904/000002790426000035/deltaairlinesannouncessept.htm
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5. S5: United: Form 10-Q, Q3 FY2026 (quarter ended Sep 30, 2026), United Airlines Holdings, Inc. (SEC EDGAR), Oct 21, 2026. https://www.sec.gov/Archives/edgar/data/100517/000010051726000186/ual-20260930.htm
6. S6: United: third quarter 2026 earnings release (Form 8-K, Exhibit 99.1), United Airlines Holdings, Inc. (SEC EDGAR), Oct 20, 2026. https://www.sec.gov/Archives/edgar/data/100517/000010051726000184/ual_erx09302026xex991.htm
7. S7: American Airlines: Form 10-K, fiscal year 2025 (ended Dec 31, 2025), American Airlines Group Inc. (SEC EDGAR), Feb 18, 2026. https://www.sec.gov/Archives/edgar/data/6201/000000620126000014/aal-20251231.htm
8. S8: American Airlines: Form 10-Q, Q3 FY2026 (quarter ended Sep 30, 2026), American Airlines Group Inc. (SEC EDGAR), Oct 22, 2026. https://www.sec.gov/Archives/edgar/data/6201/000000620126000065/aal-20260930.htm
9. S9: American Airlines: Q3 FY2026 earnings release (Form 8-K, Exhibit 99.1), American Airlines Group Inc. (SEC EDGAR), Oct 22, 2026. https://www.sec.gov/Archives/edgar/data/6201/000000620126000064/a8kerexhibit991q3-26.htm
10. S10: Duke Energy: Form 10-K, fiscal year 2025 (ended Dec 31, 2025), Duke Energy Corporation (SEC EDGAR), Feb 26, 2026. https://www.sec.gov/Archives/edgar/data/1326160/000132616026000014/duk-20251231.htm
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12. S12: Domino's: Form 10-K, fiscal year 2025 (ended Dec 28, 2025), Domino's Pizza, Inc. (SEC EDGAR), Feb 23, 2026. https://www.sec.gov/Archives/edgar/data/1286681/000119312526062321/dpz-20251228.htm
13. S13: Domino's: Form 10-Q, third quarter fiscal 2026 (12 weeks ended Sep 6, 2026), Domino's Pizza, Inc. (SEC EDGAR), Oct 13, 2026. https://www.sec.gov/Archives/edgar/data/1286681/000128668126000040/dpz-20260906.htm

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