

Below is a complete, practical homeschool plan for your 14-year-old (Year 9 typical), including a daily schedule tailored to the two-semester math plan you described, plus weekly organization and customization options. Following the schedule you will find teacher analytic and scoring rubrics for Years 8–12, written in a Jane Austen-inspired prose voice and aligned to the ACARA v9 mathematics proficiency strands (Understanding, Fluency, Problem Solving, Reasoning). I also include matching rubrics for Language Arts, Science and Social Studies (Years 8–12) so you have a full set of assessment tools for core subjects.

### Summary of the student's math program

- Semester 1: Beast Academy online, Level 5, Chapters 1–13 (conceptual, puzzle/problem heavy)
- Semester 2: AoPS Prealgebra text (comprehensive arithmetic, number theory, beginnings of algebra, percent, roots, geometry, discrete math and statistics) + AoPS Intro to Geometry Chapter 6 (right triangles & Pythagoras) + Alcumus adaptive practice

### Daily schedule (Example weekday — 6.25 hours of learning time; adaptable 5–8 hours)

- 8:30–9:00 AM: Morning routine & breakfast; brief planning (daily learning goals, materials ready)
- 9:00–10:30 AM: Mathematics (Core — 90 minutes)
  - Semester 1 sample split: 9:00–9:30 BA video/lesson; 9:30–10:00 guided practice (problem sets); 10:00–10:30 Alcumus or extension problem solving
  - Semester 2 sample split: 9:00–9:30 AoPS reading & worked examples; 9:30–10:00 practice problems; 10:00–10:30 Alcumus adaptive problems or geometry constructions
- 10:30–10:45 AM: Morning break (snack, stretch, brief outdoor movement)
- 10:45–11:30 AM: Language Arts — Reading & Writing (45 minutes)
  - Activities: close reading, comprehension questions, short writing task or grammar/spelling practice; once per week longer essay/project
- 11:30 AM–12:15 PM: Science (Core) (45 minutes)
  - Activities: concept lesson, quick hands-on experiment or video, short writeup
- 12:15–1:00 PM: Lunch & free time (45 minutes)
- 1:00–1:45 PM: Social Studies (Core) (45 minutes)
  - Activities: topic study, map work, primary source reading, short research prompts or project time
- 1:45–2:00 PM: Afternoon break (movement, mindfulness, nature walk)
- 2:00–2:45 PM: Elective/Enrichment (45 minutes)
  - Rotate options across the week: Art, Music, Foreign Language (e.g., Spanish), Technology/Coding, Home Economics, Maker/Workshop, Outdoor Education. Include one PE session per day (20–30 minutes; can be inside another block).
- 2:45–3:00 PM: Flex Time & Reflection (15 minutes)
  - Use for extra practice, teacher conference, catch-up, project planning, or student choice. End with learning reflection (what was learned, what to revise).
- 3:00 PM: End of school day (or optional study block/homework as needed)

### Weekly layout (example week)

- Monday: New lessons for Math & Science; Language Arts short writing; Elective: Art
- Tuesday: Math practice + Alcumus; Science practical task; Social Studies research; Elective: Music
- Wednesday: Problem-Solving Day — rich math problems, contest style; longer Language Arts reading; PE session (longer)
- Thursday: AoPS Prealgebra workbook day (semester 2); Science lab or outdoor experiment; Technology/coding elective
- Friday: Review & assessment — weekly quiz or self-assessment in Math (short test or problem

set), Science check, project work, family presentation time

### Semester math pacing suggestions

- Semester 1 (Beast Academy Level 5 ch.1–13):
  - Allocate one to two BA chapters per week depending on chapter length and student pace. Weekly: BA lesson + 2–3 practice sets + one problem-solving session.
  - Weekly Alcumus or additional adaptive practice: 20–30 minutes, 3× week.
  - Weekly short assessment or problem set to gauge understanding (could be teacher-created or Alcumus report).
- Semester 2 (AoPS Prealgebra + Intro to Geometry Ch 6 + Alcumus):
  - Aim for ~1–2 sections of AoPS text per week (AoPS sections are dense; allow time for worked examples & problems).
  - Geometry: when scheduling Chapter 6, set aside a block for constructions, diagram practice and Pythagorean problem sets.
  - Alcumus: daily or 4× week for targeted practice (20–30 minutes). Use Alcumus reports to guide remediation or enrichment.

### Flexible time block suggestions

- “Deep Work” sessions (60–90 min) once or twice weekly for extended projects or math proofs
- Weekly teacher–student conference (15–20 min) to set goals and address difficulties
- Switch order of subjects across the week according to student energy levels (math earlier, creative subjects later)
- Shorter days for intensive project weeks or longer days for exam/project deadlines

### Assessment cadence

- Weekly: quick checks (quizzes, Alcumus mastery checks, short writing tasks)
- Monthly: one extended assessment (math test or applied problem set; science practical report; longer essay)
- End of semester: cumulative math assessment (covering Beast Academy chapters or AoPS topics), geometry practical task, portfolio review

### Customization options

- Shorter attention span: break mathematics into two 45-minute blocks separated by a break
- Accelerated pace: add additional Alcumus practice and a second problem-solving session weekly
- Remediation: allocate 30 min/day to revisit prerequisite skills (number sense, fractions, arithmetic)
- Enrichment: insert contest math practice or independent research projects; use AoPS community problems for challenge

Teacher analytic & scoring rubrics (Years 8–12), aligned to ACARA v9 proficiency strands Below are analytic rubrics written in a Jane Austen-inspired prose that may be used for mathematics tasks (primary), plus Language Arts, Science and Social Studies rubrics for Years 8–12. Each rubric uses four performance levels and maps to a numeric band for ease of scoring. The language is deliberately gracious yet clear so comments to students may be quoted directly.

### Scoring bands (consistent across rubrics)

- 4 — Distinguished (85–100%): Exemplary performance; exceeds expectations with independence and sophistication.

- 3 — Proficient (70–84%): Confident and correct performance; meets expectations well with minor errors.
- 2 — Developing (50–69%): Partial mastery; demonstrates sound beginnings but requires further clarity or accuracy.
- 1 — Emerging (0–49%): Limited understanding or incomplete work; needs substantial guidance.

Mathematics rubrics (Years 8–12) — Each year rubric addresses the ACARA v9 proficiency strands: Understanding, Fluency, Problem Solving, Reasoning.

#### Year 8 — Mathematics

- Understanding
  - 4 (Distinguished): “The pupil displays such a clear and comprehensive grasp of mathematical notions that one is almost persuaded they were born to conceive them; definitions and concepts are invoked with ease and felicity.”
  - 3 (Proficient): “One perceives a sound understanding; concepts are employed correctly and with only occasional hesitation.”
  - 2 (Developing): “The learner shows an emerging acquaintance with the ideas, though some confusions remain and further exposition would be profitable.”
  - 1 (Emerging): “The comprehension is slender and uncertain; the student requires steady tutelage to arrive at firm understanding.”
- Fluency
  - 4: “Calculations proceed with admirable speed and accuracy, as if practised by habit.”
  - 3: “Work is generally accurate; minor slips occur but are readily amendable.”
  - 2: “Computation is inconsistent; accuracy sometimes falters and consumes undue time.”
  - 1: “Arithmetic and routine methods are frequently incorrect or incomplete.”
- Problem Solving
  - 4: “In the solving of problems, the pupil fashions elegant strategies and applies them with confidence to novel situations.”
  - 3: “Strategies are appropriate and usually effective, though occasionally routine.”
  - 2: “The student attempts reasonable approaches but often needs prompts to progress.”
  - 1: “Problem solving is hesitant and incomplete; major assistance is required.”
- Reasoning
  - 4: “Arguments and explanations are cogent, well-structured, and convincing to a judicious reader.”
  - 3: “Reasoning is logical with some lapses in clarity or depth.”
  - 2: “Explanations are present but superficial or occasionally illogical.”
  - 1: “Justification is absent or inscrutable; the chain of reasoning is broken.”

#### Year 9 — Mathematics (14-year-old typical)

- Understanding
  - 4: “The scholar embraces concepts with the calm assurance of one who has reflected much; generalisations are drawn with felicity.”
  - 3: “A firm grasp is evident; the pupil navigates new ideas with reasonable confidence.”
  - 2: “Familiarity with notions is partial; further modelling will consolidate understanding.”
  - 1: “The ideas are not yet assimilated; instruction remains necessary.”
- Fluency
  - 4: “Operations are executed swiftly and correctly, without needless hesitancy.”
  - 3: “Routine work is sound; occasional errors do not obscure competence.”
  - 2: “Procedural skill is uneven and requires reinforcement.”
  - 1: “Elementary processes are uncertain.”

- Problem Solving
  - 4: "The pupil contrives inventive solutions and perspicuously explains their procedures."
  - 3: "Solutions are correct though sometimes conventional in method."
  - 2: "Approaches are attempted, but resilient obstacles require guided intervention."
  - 1: "Problem solving seldom succeeds without explicit direction."
- Reasoning
  - 4: "Persuasive arguments and careful checking demonstrate intellectual care and depth."
  - 3: "Reasoning proceeds logically; more thorough checking would elevate the work."
  - 2: "Some sound reasoning is evident but lacks completeness."
  - 1: "Argumentation is fragmentary or absent."

## Year 10 — Mathematics

- Understanding
  - 4: "Concepts are treated with maturity; relationships between topics are perceived and employed."
  - 3: "The learner displays reliable understanding of core concepts."
  - 2: "Understanding is developing; bridges between ideas are tentative."
  - 1: "Fundamental misunderstandings persist."
- Fluency
  - 4: "Methods are employed accurately and efficiently; there is little need for external correction."
  - 3: "Competent and mostly accurate application of methods."
  - 2: "Skill needs consolidation; accuracy is variable."
  - 1: "Routine errors are frequent."
- Problem Solving
  - 4: "The student tackles unfamiliar problems with strategic insight and tenacity."
  - 3: "Problem solving is typically successful but may not exploit most efficient routes."
  - 2: "Solutions arrive sometimes, yet often through partial or assisted routes."
  - 1: "Little success in independent problem solving."
- Reasoning
  - 4: "Explanations are rigorous and well-justified, evincing commendable mathematical judgement."
  - 3: "Reasoning is sound though occasionally undeveloped."
  - 2: "Reasoning shows beginnings of structure but lacks full justification."
  - 1: "The work contains unsubstantiated claims and gaps."

## Year 11 — Mathematics (senior preparatory)

- Understanding
  - 4: "The scholar shows refined comprehension and can adapt ideas to novel arenas with grace."
  - 3: "A confident understanding of higher concepts is displayed."
  - 2: "Conceptual knowledge exists but needs greater synthesis."
  - 1: "Key concepts remain elusive."
- Fluency
  - 4: "Processes are performed with professional neatness and reliability."
  - 3: "Procedures are dependable; occasional refinements are necessary."
  - 2: "Fluency is developing and benefits from repeated practice."
  - 1: "Procedural proficiency is inadequate."
- Problem Solving

- 4: "Problems of complexity are confronted with appropriate models and original thinking."
- 3: "The student finds correct solutions, sometimes choosing routine tactics."
- 2: "Solutions often require scaffolding and teacher mediation."
- 1: "Independent solution of challenging problems is rarely achieved."
- Reasoning
  - 4: "Arguments are precise, thoroughly justified, and anticipatory of counter-argument."
  - 3: "Reasoning is clear and generally well supported."
  - 2: "Reasoning is partial and requires further substantiation."
  - 1: "Logical structure is lacking."

## Year 12 — Mathematics (final year)

- Understanding
  - 4: "One perceives a most admirable mastery of mathematical thought, displayed with logic and taste."
  - 3: "An accomplished and secure understanding of requisite material."
  - 2: "Understanding meets the basic intent yet lacks the polish of maturity."
  - 1: "Essential understanding is wanting."
- Fluency
  - 4: "Technique is fluent and exact as the most punctilious scholar might wish."
  - 3: "Performance is accurate and timely."
  - 2: "Skill requires refinement for confidence under pressure."
  - 1: "Errors of method are persistent."
- Problem Solving
  - 4: "Complex, multi-step problems are subjected to keen analysis and resolved with distinction."
  - 3: "Problem solving is often successful, occasionally missing more elegant approaches."
  - 2: "Solutions tend to be partial or reliant on external cues."
  - 1: "Independent problem solving is largely unachieved."
- Reasoning
  - 4: "Demonstrations and proofs are conveyed with clarity, rigour and assuredness."
  - 3: "Reasoning is coherent and adequately supported."
  - 2: "Explanations require further logical development."
  - 1: "Reasoning fails to cohere into a convincing whole."

## Guidance on scoring mathematics tasks

- Use the four strand scores to compute a composite: average the four strand levels (1-4) then convert to percent band:
  - Average 3.5-4.0 = Distinguished (85-100%)
  - Average 2.5-3.49 = Proficient (70-84%)
  - Average 1.5-2.49 = Developing (50-69%)
  - Average <1.5 = Emerging (<50%)
- Provide one succinct written comment in the Austen voice celebrating strengths and noting one clear next step. Example: "You have acquitted yourself with much cleverness upon this task; attend next upon verifying each inference with a brief check to secure complete certainty."

## Language Arts rubrics (Years 8-12) — Jane Austen prose

Key criteria: Comprehension & Analysis, Expression & Style, Structure & Organisation, Evidence & Conventions

## Year 8-12 (single set adaptable by expectations)

- Comprehension & Analysis
  - 4: "The reader's insight is both delicate and forceful; themes are teased out with pleasant acuteness."
  - 3: "Understanding is solid; analysis is pertinent though not always profound."
  - 2: "Comprehension is adequate; analysis is general and requires depth."
  - 1: "Limited understanding; key ideas are overlooked."
- Expression & Style
  - 4: "Language delights and informs; diction and tone match the subject with felicity."
  - 3: "Expression is clear and appropriate; occasional lapses in style occur."
  - 2: "Expression is serviceable but lacks polish or precision."
  - 1: "Language choices obscure meaning."
- Structure & Organisation
  - 4: "The piece unfolds with an agreeable order; transitions are masterful."
  - 3: "Organisation is coherent and mostly effective."
  - 2: "The structure is discernible but loose or repetitive."
  - 1: "Arrangement is confusing or incomplete."
- Evidence & Conventions
  - 4: "Quotations and references are apt and impeccably cited; grammar and presentation are nearly faultless."
  - 3: "Evidence supports claims adequately; minor conventions errors appear."
  - 2: "Support is scant or unclear; frequent surface errors."
  - 1: "Claims are unsupported; conventions impede comprehension."

## Science rubrics (Years 8-12) — Jane Austen prose

Key criteria: Conceptual Understanding, Practical Inquiry (skills & safety), Data Analysis & Interpretation, Communication

- Conceptual Understanding
  - 4: "Concepts are grasped with admirable clarity; connections between facts appear evident to the pupil."
  - 3: "The student shows a good grasp of principles with small gaps."
  - 2: "Understanding is partial; some misconceptions persist."
  - 1: "Conceptual misunderstandings predominate."
- Practical Inquiry
  - 4: "Laboratory work is conducted with correct method and neat attention to safety."
  - 3: "Procedures are followed accurately with minor slips."
  - 2: "Work is attempted but with procedural errors or inattentiveness to safety."
  - 1: "Practical technique is unsafe or largely incorrect."
- Data Analysis & Interpretation
  - 4: "Analyses are insightful; graphs and calculations are precise and illuminating."
  - 3: "Data handling is sound though sometimes ordinary in insight."
  - 2: "Interpretation is tentative or incomplete."
  - 1: "Data is mishandled or unanalysed."
- Communication
  - 4: "Reports are eloquent, structured, and persuasive in their clarity."
  - 3: "Communications are lucid and serviceable."
  - 2: "Descriptions are partial or imprecise."
  - 1: "Reports do not convey understanding."

## Social Studies rubrics (Years 8–12) — Jane Austen prose

Key criteria: Knowledge & Understanding, Inquiry & Research, Use of Evidence, Communication & Perspective

- Knowledge & Understanding
  - 4: “The pupil demonstrates a richly informed mind and expresses contextual knowledge with poise.”
  - 3: “Knowledge is well established and accurate.”
  - 2: “Knowledge meets minimum expectations but has gaps.”
  - 1: “Learner displays little accurate factual knowledge.”
- Inquiry & Research
  - 4: “Research is thorough and judicious in selection of sources.”
  - 3: “Research is appropriate, albeit not exhaustive.”
  - 2: “Research is superficial or reliant on few sources.”
  - 1: “Research is scant or irrelevant.”
- Use of Evidence
  - 4: “Evidence is marshalled persuasively and used to great effect.”
  - 3: “Evidence supports arguments suitably.”
  - 2: “Evidence is present but not fully integrated.”
  - 1: “Claims are unsupported or rely on poor evidence.”
- Communication & Perspective
  - 4: “Argument exhibits sophistication and an appreciation of multiple perspectives.”
  - 3: “A balanced argument is presented with clarity.”
  - 2: “Viewpoints are offered but lack balance or depth.”
  - 1: “Communication is unclear and one-sided.”

## Using the rubrics — practical notes

- Select the rubric for the student’s year level. For a single task, score each criterion 1–4, record the average and convert to percent band.
- Provide one or two brief comments: begin with praise (“How pleasing to see...”) and close with a clear next step (“Attend next to...”).
- For mathematics, keep a copy of the student’s Alcumus report and include it as evidence for Fluency and Problem Solving bands.
- Maintain a portfolio: work samples, assessments, projects and teacher notes. Use rubric trends each semester to inform curricular adjustments.

## Sample rubric comment templates (Austen style) — ready to paste

- Praise + clear next step (math): “You have handled these problems with admirable industry and acumen; to attain still greater assurance, practise the checking of each solution by an alternate method once per problem.”
- Writing: “Your essay demonstrates warmth of thought and some felicitous phrasing; attend next to paragraph transitions so that the reader’s pleasure is uninterrupted.”
- Science practical: “Your experimental record shows commendable neatness; to perfect the report, include a brief note on experimental error and propose one improvement.”

## Final notes and encouragement

- This plan is designed for flexibility: shorten or lengthen blocks, swap subjects daily, and use Alcumus/BA pacing to tailor challenge.

- Keep the tone encouraging and curious; use the rubric prose selectively (students may prefer plain-spoken feedback after an initial Austen-style compliment).
- If you wish, I can generate printable weekly planners, a Beast Academy weekly checklist template, or ready-to-use Alcumus tracking sheets tailored to the student's diagnostic performance.

If you would like a printable schedule, a week-by-week semester math pacing calendar (detailed per Beast Academy chapter and AoPS sections), or rubrics converted into a compact teacher checklist, tell me which you prefer and I will prepare it.