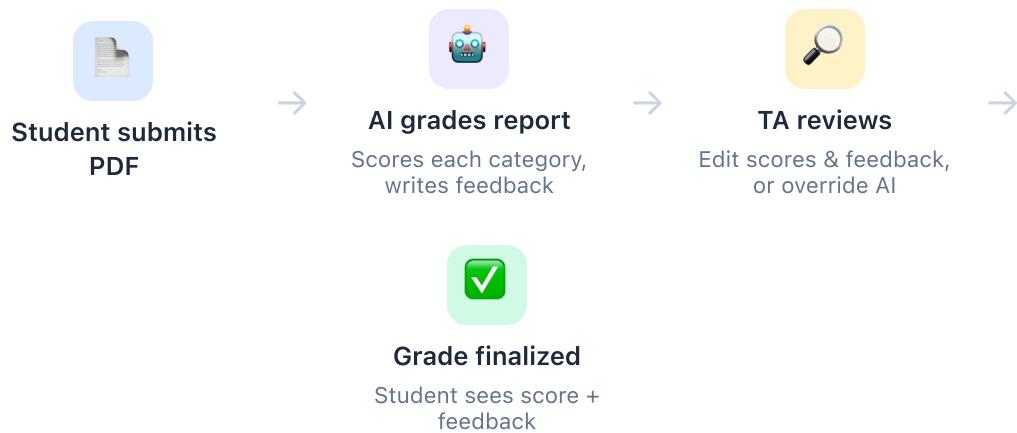


Cosmo Grading Rubric & Workflow

Anime-cosmology report grading — AI suggests, TA finalizes

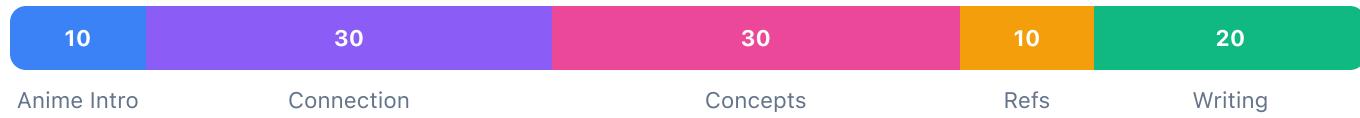
Workflow

Every report goes through this pipeline. The TA always has final say.



Point Distribution (100 total)

How the 100 points are split across the 5 categories.



Student Rubric

Share this table with students so they know exactly what a strong report looks like.

| CATEGORY | POINTS | WHAT WE'RE LOOKING FOR | HOW TO GET FULL MARKS |
|----------------------------|--------|---|--|
| Anime Introduction | 10 | Show genuine familiarity with the anime or sci-fi work you chose. | Name the work, summarize the plot in 3+ sentences, and identify themes relevant to cosmology. |
| Cosmology-Anime Connection | 30 | Tie specific cosmological concepts to specific scenes in the anime. | Identify 3+ cosmological concepts with concrete scene references (e.g., episode, timestamp, or plot moment). |

| CATEGORY | POINTS | WHAT WE'RE LOOKING FOR | HOW TO GET FULL MARKS |
|-----------------------|--------|---|--|
| Cosmological Concepts | 30 | Explain real cosmology accurately, going beyond what the anime shows. | Explain 3+ concepts accurately with depth beyond anime-level discussion. Course material, textbook depth, or quantitative examples are a bonus. |
| References | 10 | Cite credible cosmology/astronomy sources (journals, textbooks, NASA, ArXiv). | 3+ credible references, properly cited. Wikipedia alone doesn't count; pair it with a credible source. Course lecture slides count as one reference. |
| Writing Quality | 20 | Write a well-structured, clear, and readable report. | Clear structure (intro, body, conclusion), logical flow between sections, and minimal grammar/spelling errors. |

Detailed Rubric

Each category is scored on fixed tiers. Between two tiers, always use the lower score.

1. Anime Introduction

10 pts

Does the student show genuine familiarity with the anime/sci-fi work?

- 10 | Names the work, summarizes plot in 3+ sentences, identifies cosmology-relevant themes
- 8 | Names the work, reasonable summary, but misses key themes
- 6 | Names the work with a brief 1-2 sentence summary
- 4 | Mentions the work but only superficial or inaccurate synopsis
- 2 | Barely mentions the work; no meaningful summary
- 0 | Missing or completely off-topic

2. Cosmology-Anime Connection

30 pts

Does the student tie specific cosmological concepts to specific scenes in the anime?

- 30 | 3+ cosmological concepts identified with concrete scene references
- 25 | 2 concepts with scene references, or 3+ concepts without specific scenes
- 20 | 1-2 concepts with some scene context
- 15 | 1 concept but the connection is vague or superficial

- 10** Mentions cosmology in passing without tying it to the anime
- 5** Attempts a connection but it is incorrect or incoherent
- 0** No connection between the anime and cosmology

3. Cosmological Concepts

30 pts

Does the student explain real cosmology accurately, beyond what the anime shows?

- 30** 3+ real concepts explained accurately, goes beyond anime-level discussion
- 25** 2-3 concepts explained accurately with some depth
- 20** 1-2 concepts explained correctly at a basic level
- 15** Attempts to explain concepts but contains minor inaccuracies
- 10** Contains significant inaccuracies or misunderstandings
- 5** Mentions concepts by name only, with no real explanation
- 0** No cosmological content beyond the anime discussion

4. References

10 pts

Did the student cite credible cosmology/astronomy sources?

- 10** 3+ credible references, properly cited
- 8** 2 credible references with proper citations
- 6** 1 credible reference with proper citation
- 4** References listed but none are credible or relevant
- 2** Only non-credible references (anime wikis, blogs, AI summaries)
- 0** No references

5. Writing Quality

20 pts

Is the report well-structured, clear, and readable?

- 20** Clear structure (intro, body, conclusion), logical flow, minimal errors
- 16** Mostly clear with minor structural issues or a few grammar errors
- 12** Readable but disorganized or frequent grammar issues
- 8** Poorly organized and difficult to follow
- 4** Mostly incoherent but some content is discernible
- 0** Incoherent or unreadable

What Counts as a Credible Reference?

Course lecture slides count as one reference regardless of how many slide decks are cited.

Credible

Peer-reviewed journal articles
 Textbooks (incl. Serjeant's *Observational Cosmology*)
 NASA / ESA / JAXA official pages
 ArXiv preprints
 Course lecture notes/slides
 PBS Space Time videos

Not Credible (on their own)

Wikipedia (OK only as supplementary)
 Anime wiki pages
 Personal blogs
 AI-generated summaries

Overall Grade Scale

After summing the 5 category scores.

85 - 100
Excellent

70 - 84
Good

55 - 69
Adequate

40 - 54
Below expectations

0 - 39
Insufficient

Platform Preview

This is what the grading interface looks like in Cosmo. The AI fills in category scores and feedback; the TA reviews and finalizes.

The screenshot shows the Cosmo platform's grading interface. On the left, a sidebar menu includes options for Dashboard, Assignments, Simulations, Grading (which is selected), Users, and Settings. The main area is titled "Grading" and says "Review and grade student submissions". A dropdown menu shows "report 1". Below it, a summary box indicates "Submissions (1)" and "report 1 · 100 pts". A submission by "Alice Chen" is listed, showing an AI grade of "32/100" and a link to "test-cosmology-report.pdf". The submission was submitted on Feb 24, 2026, at 9:46 PM and graded by "葉健羽". To the right, a detailed breakdown of the grade is shown:

| Grade | AI: 32/100 | Re-run AI |
|----------------------------|------------|-----------|
| AI CATEGORY BREAKDOWN | | |
| Anime Introduction | 0/10 | |
| Cosmology-Anime Connection | 0/30 | |
| Cosmological Concepts | 20/30 | |
| References | 0/10 | |
| Writing Quality | 12/20 | |
| Total | 32/100 | |
| Score (out of 100) | | |

Grading Rules

Fixed tiers only — Scores must be one of the listed tier values. No in-between scores (e.g., no "22" for a 30-point category).

When in doubt, round down — If a submission falls between two tiers, always assign the lower tier's score.

Score categories independently — Don't let a weak intro drag down the concepts score, or vice versa.

AI suggests, TA decides — The AI pre-fills scores and feedback. The TA can accept, edit, or completely override before saving.

Return option — If a submission needs revision, the TA can return it to the student instead of grading. The student gets notified and can re-upload.

Sig figs matter — If a student reports a value like $H_0 = 67.74823 \text{ km/s/Mpc}$ from a rough estimate, note the inappropriate precision.