

Helping Families Understand BTC From Deficit Protection to Asset Celebration



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Why communication about BTC is hard

- BTC looks unfamiliar
- Families only see the “outside” of math class
- Students describe BTC in unpredictable ways
- Teachers feel pressure to defend their practice

I used to worry constantly...

- How students perceived BTC
- How parents might judge my teaching
- Whether I could explain BTC clearly
- Feeling exposed because I was still learning BTC myself

The shift over time

- Emails, meetings, admin conversations
- Realizing families weren't judging — they were confused
- Moving from *defending* to *helping them see what I see*
- Today's session = what I learned the hard way

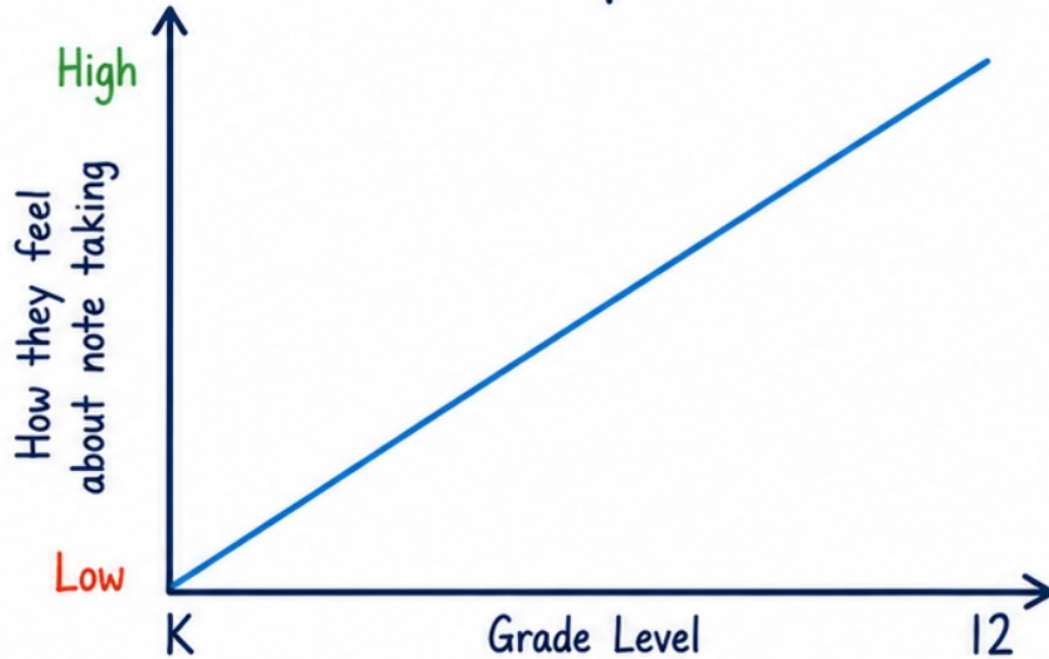
Three Paradigm Shifts for Families

- Note Taking → Visibility
- Homework → Predictability
- “You’re not teaching” → Prepare Families and Support Students

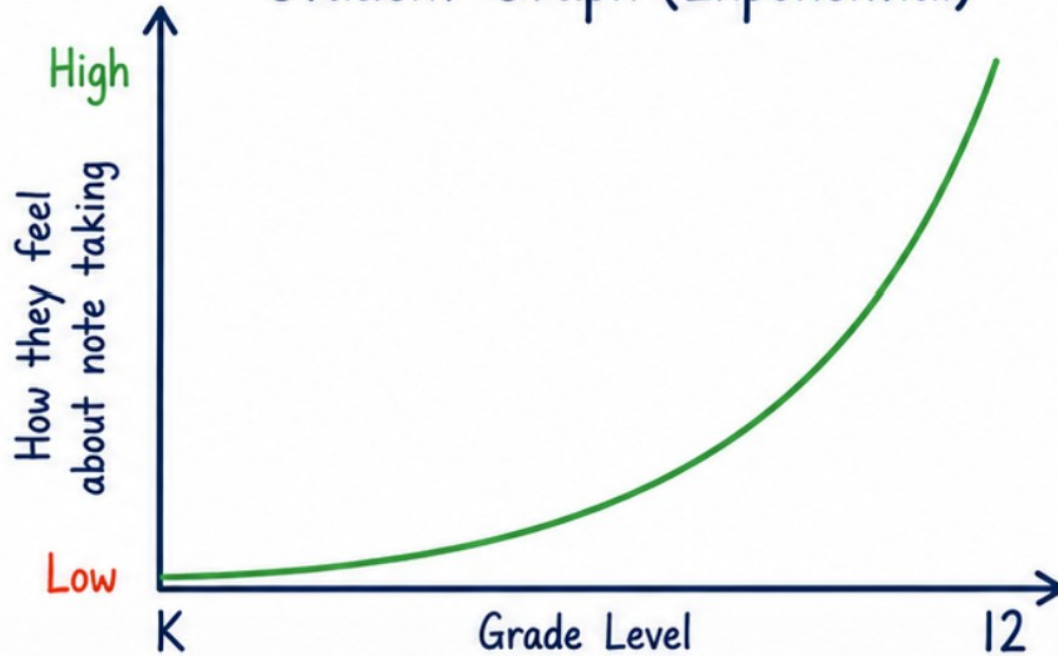
Paradigm Shift 1: Notes

- **The Challenge:** “They’re not taking notes.”
- **Why It Happens:** Families equate notes with learning.

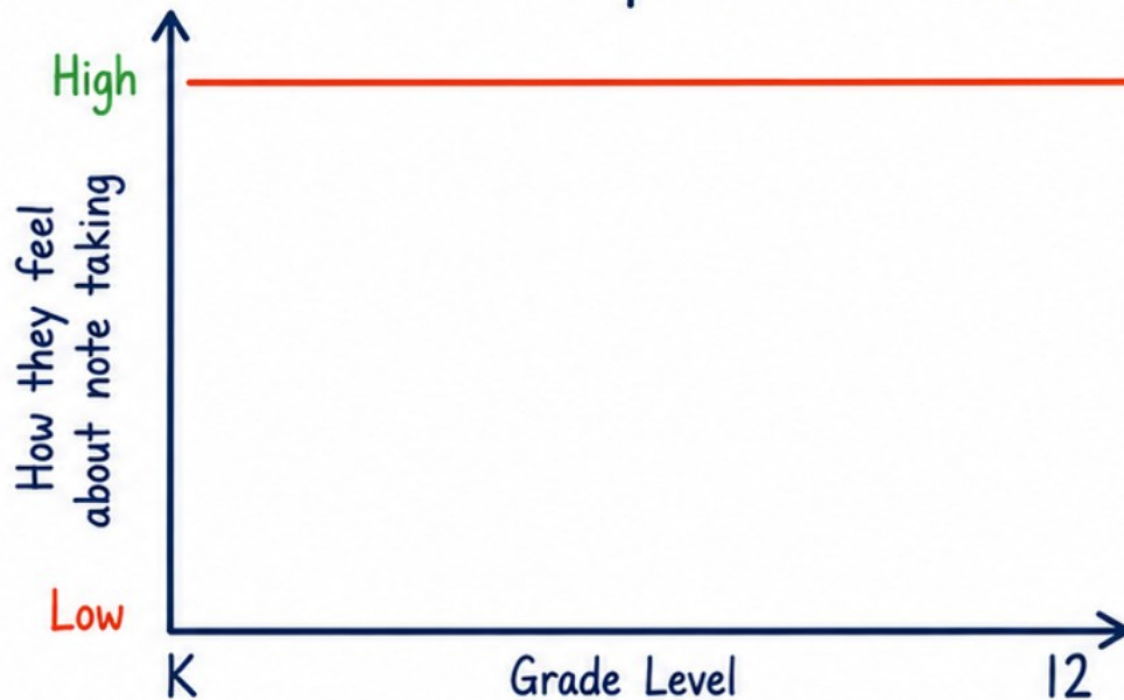
Teacher Graph (Linear)



Student Graph (Exponential)



Parent Graph (Consistent)



Paradigm Shift 1: Notes

- **The Challenge:** “They’re not taking notes.”
- **Why It Happens:** Families equate notes with learning.
- **If Nothing Changes:** Anxiety, mistrust, mixed messages to students.
- **The Shift:** Make learning visible in new ways.

Paradigm Shift 1: Visibility

What I do now:

- Post fill-in-the-blanks notes on Teams
- Share note-making examples
- Model note-making live

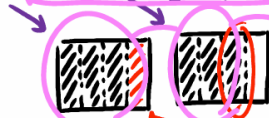
ex. 1 / ex. 3 for 2-4

6.1 MULTIPLYING A FRACTION AND A WHOLE NUMBER

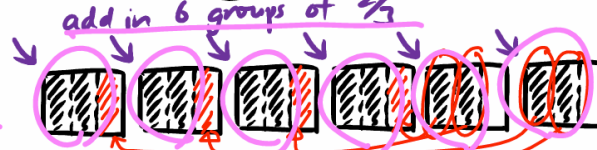
Multiply Fraction and Whole Number Using a Model

Example 1. Model each multiplication and simplify to lowest terms.

a) $2 \times \frac{3}{4} = 1 \frac{2 \div 2}{4 \div 2} = \left(1 \frac{1}{2}\right)$
 add in 2 groups of $\frac{3}{4}$

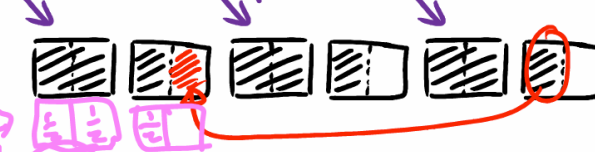


b) $6 \times \frac{2}{3} = \left(4\right)$
 add in 6 groups of $\frac{2}{3}$



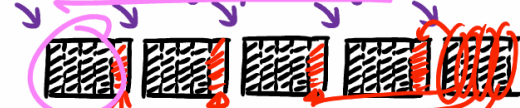
$\frac{12 \div 3}{3 \div 3} = \frac{4}{1} = 4$

c) $3 \times \frac{3}{2} = \left(4 \frac{1}{2}\right)$
 add 3 groups of $1 \frac{1}{2}$



3 → half

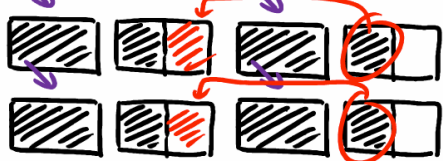
d) $\frac{4}{5} \times 5 = 5 \times \frac{4}{5} = \left(4\right)$
 add 5 groups of $\frac{4}{5}$



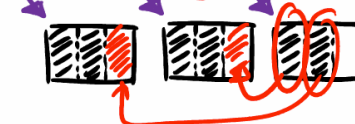
$\frac{20}{5} = 4$

Try. Model each product and simplify to lowest terms.

a) $4 \times \frac{3}{2} = \left(6\right)$



b) $\frac{2}{3} \times 3 = \left(2\right)$



4 of $\frac{1}{5}$ how many $\frac{1}{5}$ bar do I have?

Fill in the blanks

$$\frac{2}{3} \times 5 = \frac{2}{3} + \frac{2}{3} + \frac{2}{3} + \frac{2}{3} + \frac{2}{3}$$
$$= \frac{2 \times \square}{3}$$

$$-\frac{2}{3} \times 5 = \frac{\square \times 5}{3}$$

Things to remember

Solve

$$\left(-\frac{4}{5}\right) \times (+10) =$$

$$\left(-\frac{4}{5}\right) \times 7 + \frac{2}{3} =$$

(create your question)



Note Making #2

Hi all,

Umeki MMA--08 001 stəywəte:n Point Grey Secondary 2026

Here are the notes you created today.



Paradigm Shift 2: Homework

- **The Challenge:** “They finish everything in class. Shouldn’t they have more homework?”
- **Why It Happens:** Families expect long textbook sets and equate more homework with more learning.
- **If Nothing Changes:** Pressure to assign extra worksheets; more email loops; misalignment with classroom work
- **The Shift:** Use CYU as short, aligned practice that matches the thinking from class.

5. Determine the value that makes each proportion statement true. Include the units. Show how you know.

a) $\frac{190 \text{ km}}{2 \text{ h}} = \frac{\square}{8 \text{ h}}$ $\square = \underline{\hspace{2cm}}$

b) 3 goals in 2 games = $\square$ in 26 games $\square = \underline{\hspace{2cm}}$

c) $\frac{\$6}{4 \text{ avocados}} = \frac{\square}{10 \text{ avocados}}$ $\square = \underline{\hspace{2cm}}$

6. Is each proportional relationship below true? Show how you know.

a) $\frac{26}{14} = \frac{52}{28}$

b) $\frac{340 \text{ words}}{8 \text{ minutes}} = \frac{710 \text{ words}}{19 \text{ minutes}}$

7. Determine the unknown value in each situation.

a) Ten pens cost \$2.50. How much will 17 pens cost?

Mild

1. Convert $\frac{1}{10}$ to decimal and %
2. Convert 0.2 to a fraction and %
3. Convert $\frac{56}{100}$ into a decimal and %.

Medium

1. Convert $\frac{3}{20}$ into a decimal and %.
2. Convert 0.032 into a fraction and %
3. $\frac{4}{5}$, $\frac{45}{200}$, 0.1
✓ order them and justify by converting

Spicy

1. A student says "0.0068 is basically 0"
Is it always, sometimes, never true?
Explain.
2. 0.125 order then
5.98 on a line
 $\frac{71}{200}$ from 0 to 6.
2% Explain.

Takuya Umeki 02-17 8:56 am Edited

Hi Umeki MMA--08 004 stəywəte:n Point Grey Secondary 2026



Paradigm Shift 2: Predictability

What I do now:

- Daily CYU list posted on Teams
- Clear message: “Students work on these in class; they may continue at home.”
- Predictable structure = fewer emails

Paradigm Shift 3: “You’re not teaching.”

- **The Challenge:** Students say “You’re not teaching,” and families panic.
 - PLUS: Some students withdraw early in BTC:
- **Why It Happens:** BTC shifts teacher role and student role
- **If Nothing Changes:** More panic, more meetings, more defensiveness; withdrawn students stay invisible.
- **The Shift:** Prepare and listen to families + support all learners.



BTC Summary:
<https://bit.ly/4y3A4YL>



BTC Video:
<https://bit.ly/4oJZXIF>

Paradigm Shift 3: Prepare Families

What I do now:

- Send BTC overview before meetings
- Ask colleague to check tone
- Build understanding by admin early

Paradigm Shift 3: Support Students

What I do now:

- Use micromoves for hesitant students
- Build community and culture intentionally
- Collaborate with resource/special ed teachers

Extra: When Pushback Comes From All Directions

- **The Challenge:** Students, parents, colleagues — all questioning at once.
- **The Shift:** Let families *experience* BTC.
- **Example:** Parent-Teacher Night task → parents feel the thinking → pushback becomes curiosity
 - **Four 4's, The Tax Collector, Painted Cube, The Answers Are, ... etc**

Bringing It All Together

From Deficit Protection to Asset Celebration

- Make learning visible
- Make practice predictable
- Prepare families
- Support all learners
- Build community and culture intentionally

Closing Reflection

“What are some concrete moves you will try to make student thinking more visible to families?”

What a Student Says

“You’re one of the most passionate teachers ever. You’re not afraid to step out of the status quo to create the best learning environment for students. And I want you to know — all of this effort and all of this passion does not go unnoticed.”

Thank you!

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