The logo for Next Step Test Prep is centered in the upper half of the image. It consists of a blue square containing the words "Next Step" in a large, white, sans-serif font, with "Next" on the top line and "Step" on the bottom line. Below "Step", the words "TEST PREP" are written in a smaller, white, all-caps, sans-serif font. The background of the top half of the image is dark blue with a repeating pattern of small white plus signs.

**Next
Step**
TEST PREP

PCAT WEBINAR

Logs, units, and graphs!

Today's Agenda

- ▶ **Welcome to this Info Session!**
- ▶ **Introduction**
- ▶ **General Information**
- ▶ **What to Do First**
- ▶ **Logarithms**
- ▶ **Units and graphs**
- ▶ **Questions?**

**Next
Step**
TEST PREP



Who Is Next Step?

- Began in 2009 as a tutoring company
- Focus on graduate admissions tests only
- Team of educational experts
- First company to have materials built from ground up for 2016 PCAT format

✓ **We never stop improving our materials!**

Next
Step
TEST PREP



STUDENTS HAVE A CHOICE

Introduction

Hi, I'm Phil!

- ▶ **PCAT Content writer**
 - ▶ **Tutored and taught for 9+ years**
 - ▶ **Attended University of Nebraska Medical Center as an MD/PhD student.**
- ✓ **Next Step is a team of test prep and educational experts committed to excellence.**



Logarithms

What is a log?

$$x = y + 2 \quad \rightarrow \quad x - 2 = y$$

It's just a way to rewrite an exponential equation!

$$x = 4y \quad \rightarrow \quad \frac{x}{4} = y$$

$$x = 10^y \quad \rightarrow \quad \log x = y$$

Logarithms

$$\log_2 8 = ?$$

$$\log_2 A = B$$

$$A = 2^B$$

$$A = 8$$

$$8 = 2^B$$

$$8 = 2 \times 2 \times 2$$

$$8 = 2^3$$

$$\log_2 A = B$$

$$A = 2^B$$

Logarithms

$$\left(\frac{x^2(x^y)}{x^6}\right)^{-2}$$

$$(x^{2+y-6})^{-2}$$

$$\frac{1}{(x^{y-4})^2}$$

$$\left(\frac{x^{2+y}}{x^6}\right)^{-2}$$

$$(x^{y-4})^{-2}$$

$$\frac{1}{x^{2y-8}}$$

Exponential Laws

$$x^a \cdot x^b = x^{a+b}$$

$$\frac{x^a}{x^b} = x^{a-b}$$

$$(x^a)^b = x^{ab}$$

$$x^{-a} = \frac{1}{x^a}$$

$$x^0 = 1$$

Logarithms

Exponential Laws

$$x^a \cdot x^b = x^{a+b}$$

$$\frac{x^a}{x^b} = x^{a-b}$$

$$(x^a)^b = x^{ab}$$

$$x^{-a} = \frac{1}{x^a}$$

$$x^0 = 1$$

Logarithm Laws

$$\log(ab) = \log(a) + \log(b)$$

$$\log\left(\frac{a}{b}\right) = \log(a) - \log(b)$$

$$\log(a^b) = b \cdot \log(a)$$

$$\log_x\left(\frac{1}{x^a}\right) = -a$$

$$\log_x 1 = 0$$

Logarithms

Solve $\log_2(4x)^3 - \log_2x$.

$$\begin{aligned}\log_2(4x)^3 - \log_2x \\ &= 3 \log_2 4x - \log_2x \\ &= (3 \log_2 4) + (3 \log_2 x) - \log_2 x \\ &= 3(2) + 2 \log_2 x \\ &= 6 + 2 \log_2 x\end{aligned}$$

Logarithm Laws

$$\log(ab) = \log(a) + \log(b)$$

$$\log\left(\frac{a}{b}\right) = \log(a) - \log(b)$$

$$\log(a^b) = b \cdot \log(a)$$

$$\log_x\left(\frac{1}{x^a}\right) = -a$$

$$\log_x 1 = 0$$

Logarithms

$$\text{Solve } 4 = \log(100x)^2 - \log(100)$$

$$4 = 2 \log(100x) - \log 100$$

$$4 = 2\log(100) + 2\log(x) - \log 100$$

$$4 = 4 + 2\log(x) - 2$$

$$4 = 2 + 2 \log_2 x$$

$$2 = 2 \log_2 x$$

$$1 = \log_2 x$$

$$2^1 = x$$

Logarithm Laws

$$\log(ab) = \log(a) + \log(b)$$

$$\log\left(\frac{a}{b}\right) = \log(a) - \log(b)$$

$$\log(a^b) = b \cdot \log(a)$$

$$\log_x\left(\frac{1}{x^a}\right) = -a$$

$$\log_x 1 = 0$$

Data Interpretation

P-value

Likelihood that the null hypothesis could be true

Standard Deviation

How much the values are grouped around the mean

R-squared (R^2)

How correlated 2 items are.

Data Interpretation

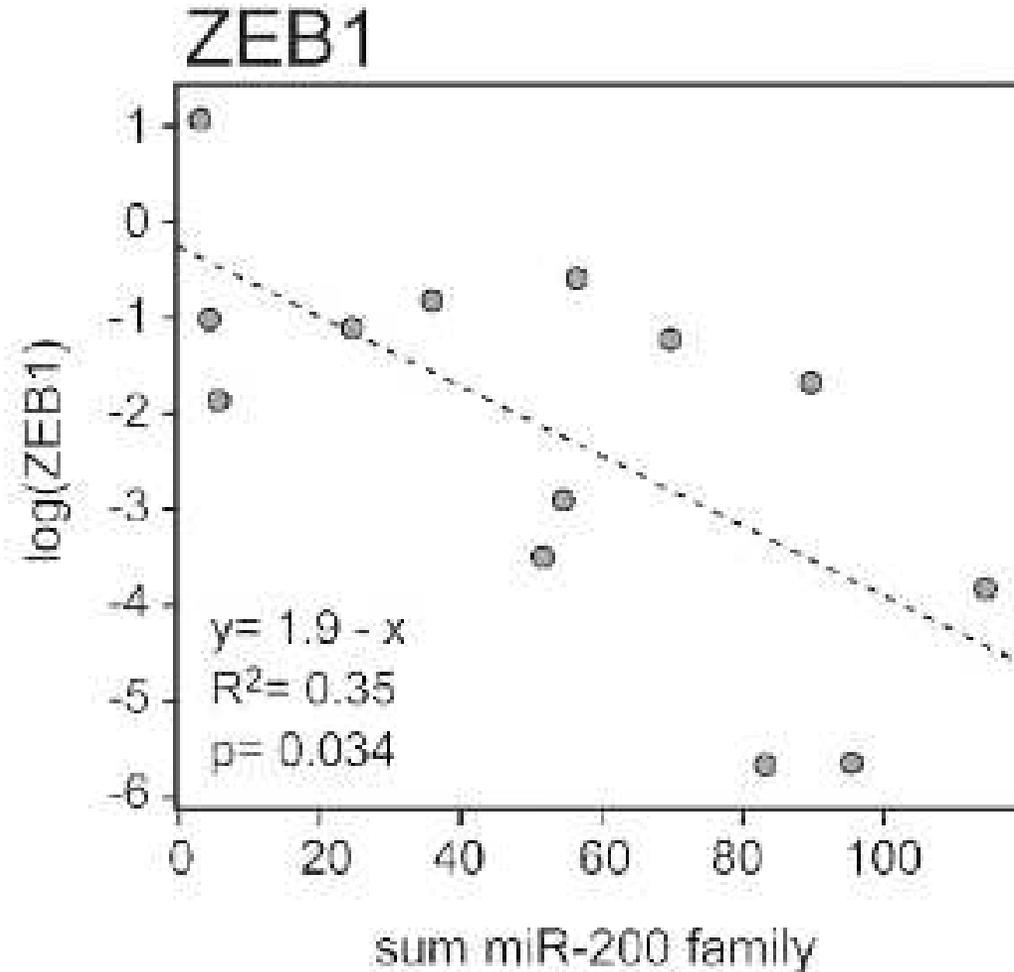
Pearson correlation coefficient	Number of joint attention behaviors	Number of scaffolding behaviors	Number of unique words used
Number of joint attention behaviors	1.00	.78 (p=.039)	.89 (p<.0001)
Number of scaffolding behaviors	.78 (p=.039)	1.00	.74 (p=.023)
Number of unique words used	.89 (p<.0001)	.74 (p=.023)	1.00

Data Interpretation

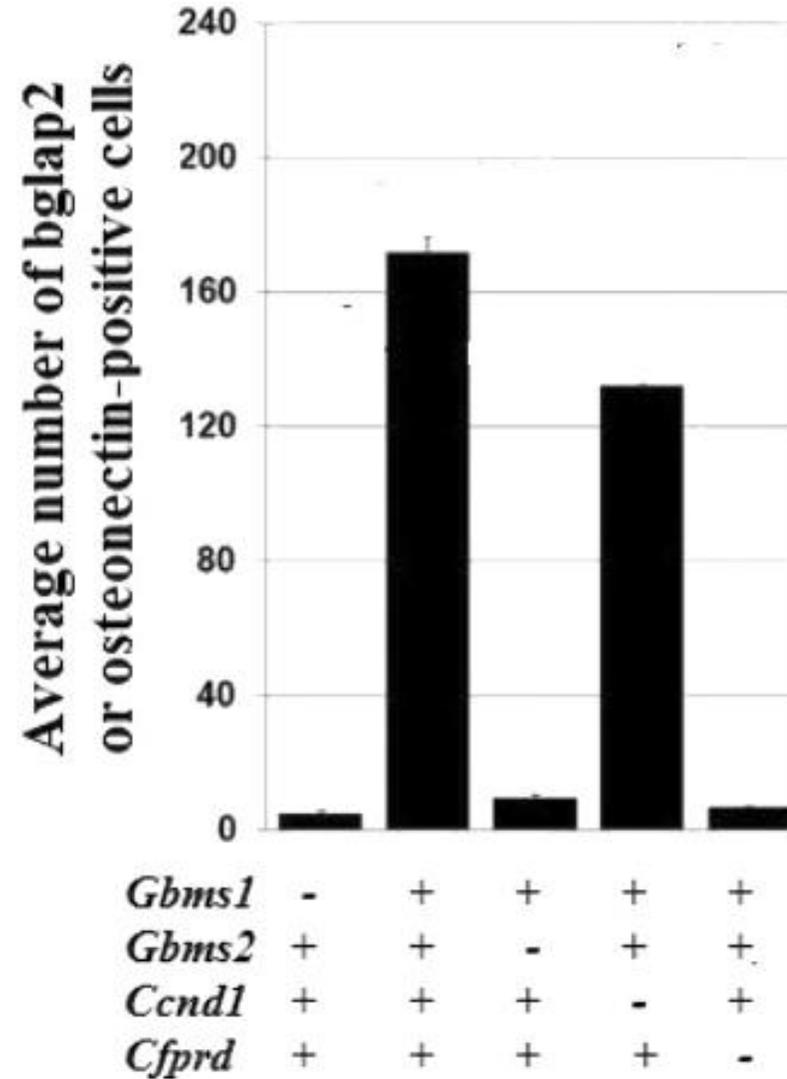
Brain Area	Children exposed to stressful situations	Control (n=40)	p-value
Intracranial Volume	1245	1253	0.38
Hippocampus	5.08	7.1	0.0002

Data Interpretation

When I have 100 miR200, how much zeb1 can I expect?



Data Interpretation



Next Step: Core Values

Next
Step
TEST PREP



Educate Daily



Approachability



Authenticity



Professionalism



Ownership

We are dedicated to providing personalized support, advice and prep options that match each student's individual needs.

Students Have a Choice

Next
Step
TEST PREP

✓ **Over 50,000 students have used Next Step Test Prep in their prep journey**

- **Always up-to-date content, strategy and tests**
- **Guaranteed Satisfaction**
- **No call center – instead, Academic Managers guide you all the way!**
- **Always updating our content based on announced changes and student feedback**
- **Are ensured the most up-to-date, realistic experience...always**
- **Access to Online Forum for additional live support from fellow students and NSTP Content Team**

SHOPPER
APPROVED

4.7



Personalized Options

- ✓ No matter your study style, subject expertise, or PCAT goal, Next Step has an option for your personal needs and lifestyle.
- **Free Practice Bundle Materials**
- **Self-Prep Materials and Planning**
- **Guided Online Study with Free Extra Help**
- **One-on-One Tutoring**

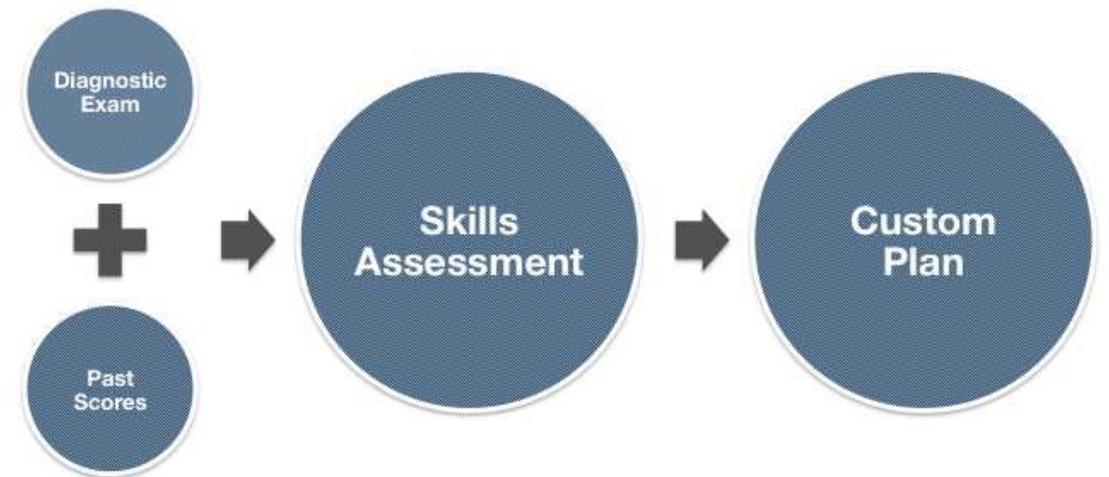
Next
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One-On-One Tutoring

- ✓ No matter your study style, subject expertise, or PCAT goal, Next Step's Tutoring is personalized for YOU
- Tailored Study Plan
- Flexible Online Tutor Sessions
- Top-Scoring, Expert PCAT Tutors

Next
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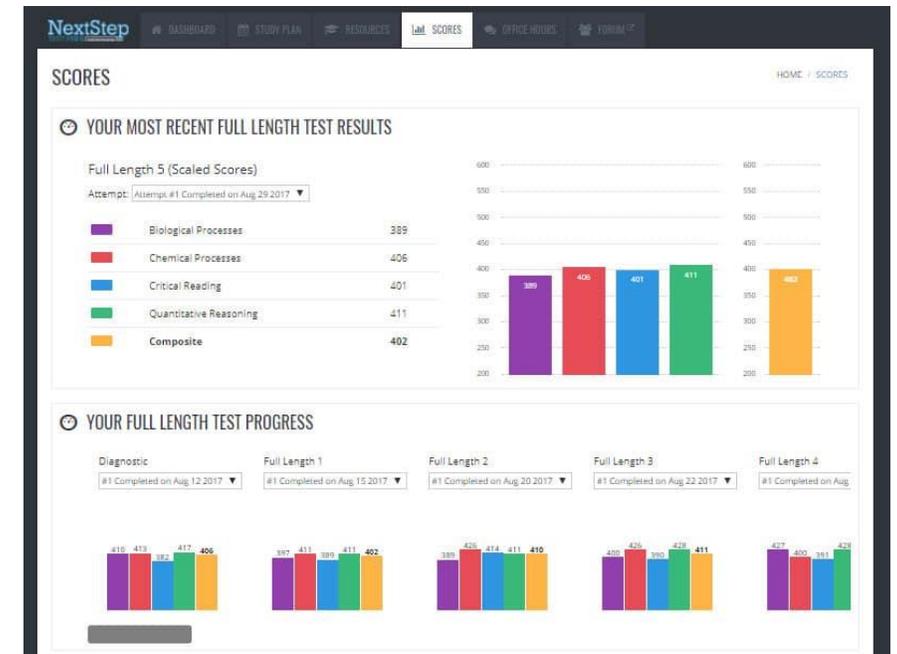


Unmatched Online Course

Next
Step
TEST PREP

✓ **Finally, a high-quality PCAT prep choice delivering personalization, flexibility, and affordability in an easy-to-understand platform and a score guarantee.**

- **One-On-One Orientation**
- **Exclusive Study Plan Generator**
- **Ongoing Live-Online Office Hours (2x/week)**
- **5 Full Length PCAT Practice**
- **1 Full Length PCAT Diagnostic**
- **Extra focus on high-yield and difficult subjects**
- **Review Book: 500+ pages**
- **Content Book: 200+ pages**
- **Lesson Videos: over 30 hours**
- **Content Videos: 50 videos with interactive quizzes**
- **11 Qbanks with over 450 questions**
- **Expertise Built & Supported by 99th percentile instructors**



Most Realistic Practice Exams

Next
Step
TEST PREP

✓ **Your testing experience matters.**
Practice with the most representative PCAT exam platform available.

- Free Full-Length Diagnostic
- 5 Full-Length PCAT Exams
- Exclusive Study Plan Generator
- Lesson Book (print + online PDF)
- Review Book (print + online PDF)
- All 17 Lesson Videos
- All 50 Content Review Videos
- All Test Review Videos
- All Sections Exams
- Live Online Q&A Office Hours (2x/week)
- Online Forum Access
- **Full Exam Bundle— only \$99**



Next Step: Educate Every Day

Next
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TEST PREP

✓ Get the **ONLY FREE PCAT Practice Bundle**

- Full-Length PCAT Diagnostic Test
- Diagnostic Test Review Video (4 segments)
- Lesson 1 from PCAT Online Course
- PDF Sample: Lesson Book for Lesson 1
- PDF Sample: Review Book for Chapters 1–3
- Content Review Videos
 - Scientific Method and Data Interpretation
 - Quantitative Reasoning: Math Skills I
 - Chemistry: Substitution and Elimination Reactions
 - Biology: Kidney Structure and Function
- Exclusive Study Plan Generator
- Free Public Q&A Office Hours & Webinars

Access your
FREE PCAT Practice now!

[nextsteptestprep.com/
free-pcat-practice-bundle](https://nextsteptestprep.com/free-pcat-practice-bundle)

Take the Best Next Step

**Next
Step**
TEST PREP

Meet with an Academic Manager and build a strategy

- Discuss what works for you: from self-study to tutoring
- Personalize A Study Plan for YOU
- Plan around your study style and class/work schedule
- Speak with educational pros, not a call center

Attend our free webinars

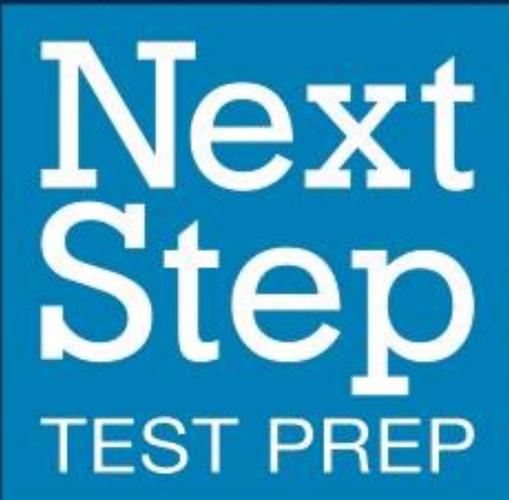
- Download the FREE PCAT BUNDLE and take the Diagnostic
- Take advantage of the free webinars and open Office Hours with a focus on PCAT subject reviews and strategy sessions

Let's Get Social

- Follow us on Facebook, Instagram and YouTube

Contact an Academic
Manager for a free
PCAT Consultation
and plan your prep today!

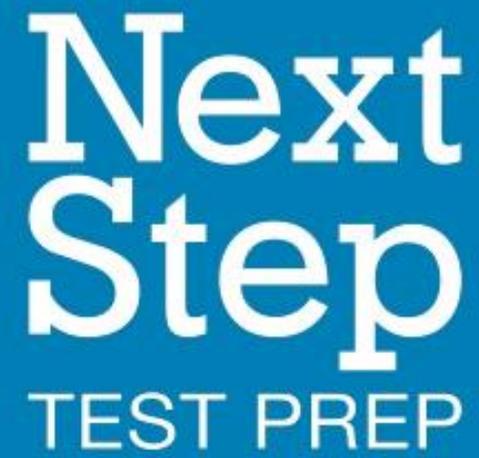
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**Next
Step**
TEST PREP

Get Solid Advice for Your Next Step

CALL 888-530-6398 FOR A FREE CONSULT

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Questions?