

A KHAN ACADEMY PRODUCT

KHANMIGO AI OVERVIEW



INTRO

- Artificial Intelligence or AI in short is the new buzzword in technology that is soon going to impact our daily lives be it our personal or business matters.
- Another interesting facet of AI that has every educator talking is how our students are going to perceive AI.
- With huge leap in generative AI within one short year it has got everyone's attention.

AI AND EDUCATION

The conversation about AI in education has quickly shifted from its benefits and perils to:

- How do we prepare our students with what's available now
- How can students use AI for personalized tutoring experience
- How can it help them in their homework and still be competitive on grade level
- How can educators create self-paced customized lesson plans

WHAT IS KHANMIGO

Meet Khanmigo - an AI driven product developed and hosted by Khan Academy, a not-for-profit online education resource for K12 students that acts as a:

➤ TUTOR

- AI-based 1-1 tutoring for K12 students in English, Math, Science

➤ ASSISTANT

- Assist educators with AI-guided lesson planning and feedback

➤ COACH

- Gives prompts and suggestions for compositions, debates, collaboration

➤ CODE ASSISTANT

- Develops computer science skills by providing real-time coding feedback

HOW IS KHANMIGO DIFFERENT FROM OTHER TUTORING WEBSITES

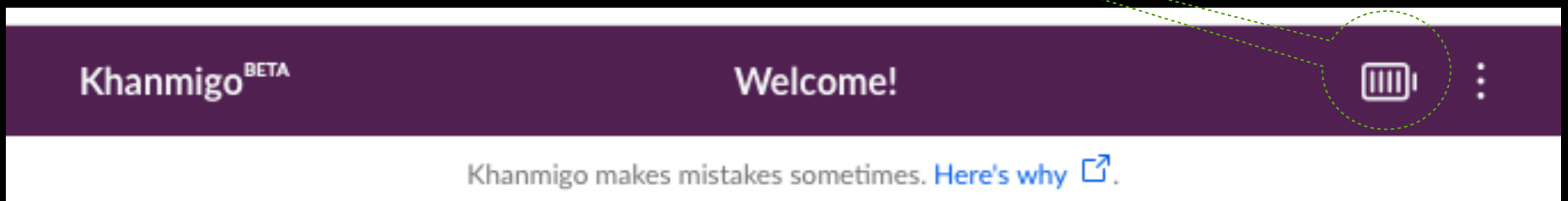
Since Khanmigo is AI based it can converse with the student in natural english language.

- Student can "talk" to the AI program via features such as story crafting, debates with historical or fictional figures, and more
- When a student answers a question incorrectly it automatically adjusts the prompts and suggestions just like a GPS navigator
- Student can ask a question based on a need or a homework assignment
- Educators can create customized lesson plan by "conversing" with it

KHANMIGO IS IN BETA MODE

What does this mean?

- The website functionality can change anytime without notice
- Sometimes it may provide incorrect or inconsistent information so verifying the results are encouraged
- There's a daily limit on usage



KHANMIGO TUTOR

➤ FEATURES

- Helps with K-12 Math, English, Science or Humanities questions
- Doesn't provide direct answers right away
- Breaks down the problem statement into smaller steps to reach an answer

➤ MATH

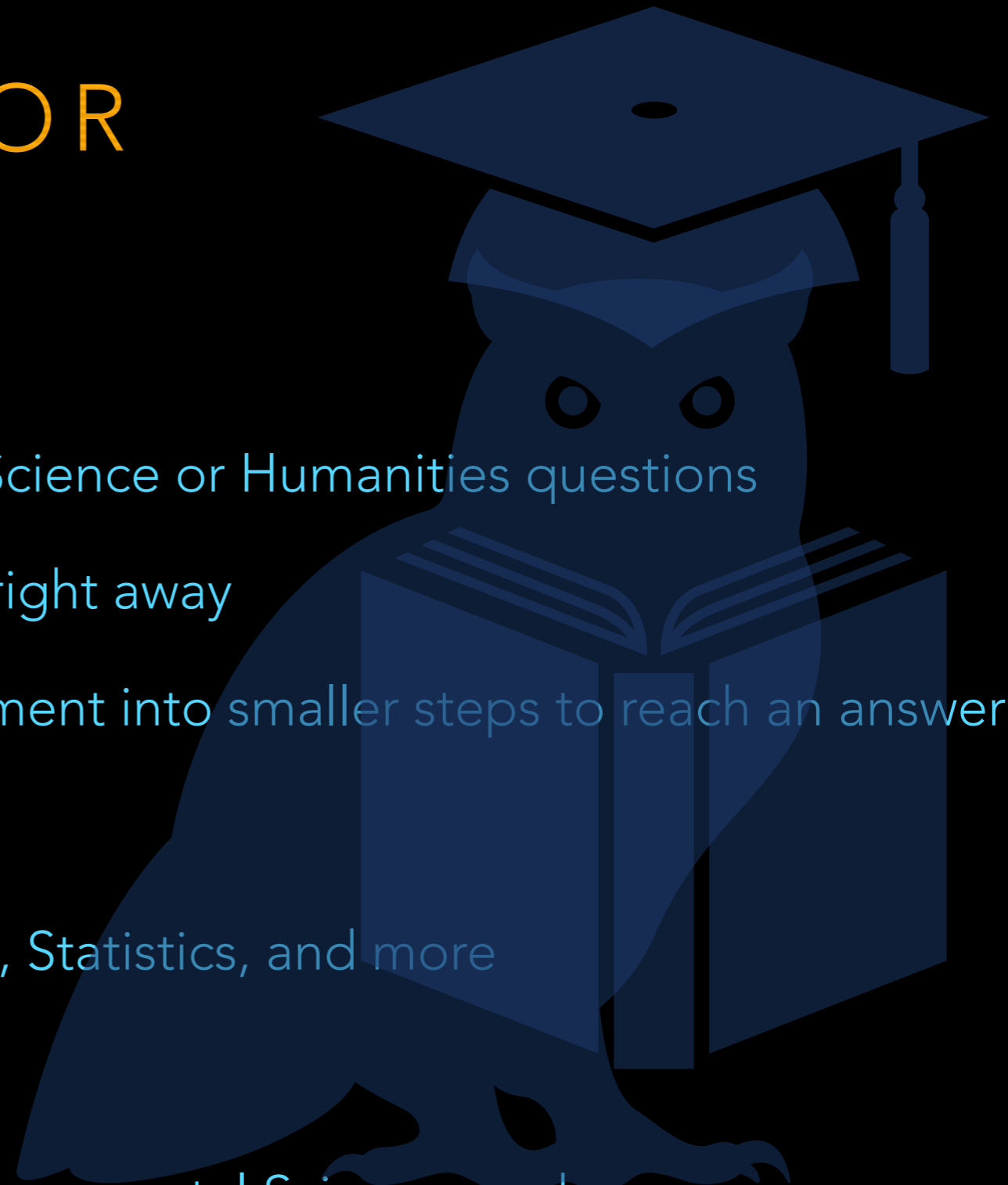
- Algebra, Trigonometry, Calculus, Statistics, and more

➤ SCIENCE

- Physics, Chemistry, Biology, Environmental Science, and more

➤ HUMANITIES

- History, Literature, Philosophy, and more



TUTOR - MATH (GRADE LEVEL 6)

Algebra grade level 6



Alright! Let's dive into some 6th grade Algebra problems. Remember, we'll tackle these one at a time. Here's the first one:

1. If $x + 5 = 10$, what is the value of x ?

Take your time to think about it and let me know what you think the next step should be.

[Leave feedback](#)

Rate this response



0



Hmm, let's think about this. If we have $x + 5 = 10$, and we want to find x , what operation could we use to isolate x ?

[Leave feedback](#)

Rate this response



TUTOR - MATH (GRADE LEVEL 12)



Great choice! Trigonometry is a fascinating subject. Let's start with a problem:

"A ladder 10 feet long rests against a vertical wall. If the bottom of the ladder slides away from the wall at a rate of 1 foot per second, how fast is the top of the ladder sliding down the wall when the bottom of the ladder is 6 feet from the wall?"

Take a moment to understand the problem. What do you think are the important pieces of information here?

[Leave feedback](#)

Rate this response



$$6^2 + y^2 = 10^2$$



Excellent! You've correctly applied the Pythagorean theorem. Now, can you solve for y ?

[Leave feedback](#)

Rate this response



TUTOR - PHYSICS



Electrifying choice! Electricity is all around us and powers our daily lives. Let's create a problem to practice. Here's one:

"A light bulb is connected to a 9V battery. The bulb has a resistance of 3 ohms. How much current flows through the bulb?"

Remember, we use Ohm's law to solve this. Can you tell me what Ohm's law is?

[Leave feedback](#)

Rate this response



$E = I * R$



Excellent! You've got Ohm's law down pat. Now, can you use Ohm's law to find the current flowing through the light bulb?

[Leave feedback](#)

Rate this response



TUTOR - LITERATURE



Fantastic! Literature is a wonderful subject. Let's start with a question about a classic piece of literature.

1. In "To Kill a Mockingbird," what is the significance of the mockingbird in the story?

Remember, I'm here to guide you, not to give you the answer. So, what are your thoughts on this question?

[Leave feedback](#)



Rate this response



It's a mocking birdie



Ah, I see you're making a playful response! But let's dig a little deeper. The mockingbird is indeed a bird, but it also holds a symbolic meaning in the novel. Can you think about what the mockingbird might symbolize in "To Kill a Mockingbird"?

[Leave feedback](#)

Rate this response



It symbolizes beauty and innocense



Well done! You're absolutely right. The mockingbird in "To Kill a Mockingbird" symbolizes innocence and beauty. Now, can you think of any characters in the novel who might be considered "mockingbirds"?

[Leave feedback](#)

Rate this response



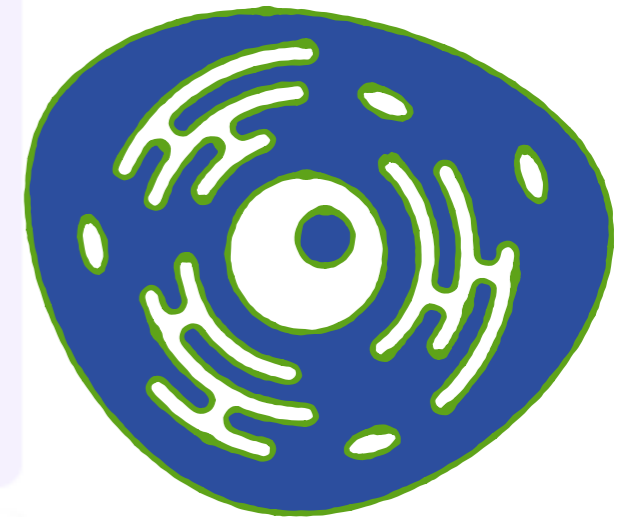
REFRESH - QUIZZES



Awesome! AP Biology it is! 🧪🔬🧬

Let's dive into the fascinating world of life science. Here's your first question:

1. Which of the following best describes the function of the mitochondria in a cell?
A) Protein synthesis
B) Energy production
C) DNA replication
D) Cell division



[Leave feedback](#)

Rate this response



B



Quiz point! 🎉

Absolutely correct! The mitochondria is often referred to as the "powerhouse of the cell" because it's responsible for energy production. Good job!

Ready for question 2? Let's go!

2. What is the term for the process by which water moves across a semipermeable membrane from an area of lower solute concentration to an area of higher solute concentration?

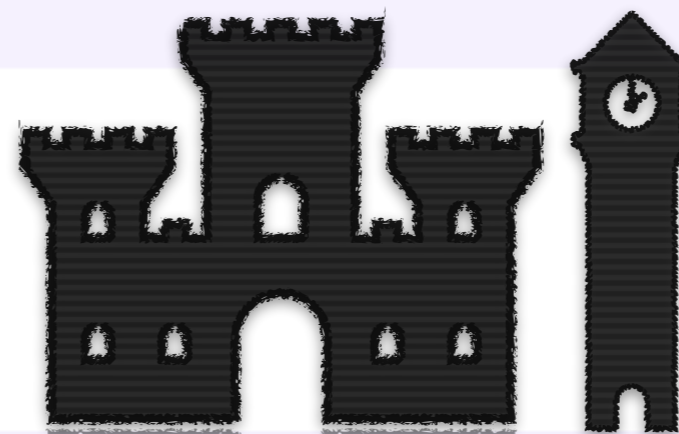
WRITE A STORY

Yes, let's write a fantasy story.



Oh, how absolutely enchanting! A fantasy story it is! ✨🧙🏰🧚🏿 I can already feel the magic in the air! Now, let's get started. Do you have any initial ideas for our story? Perhaps a brave knight, a mischievous fairy, or a mysterious enchanted forest? Let your imagination run wild!

[Leave feedback](#)



Rate this response



Gothic palace



A Gothic palace, you say? Oh, how delightfully mysterious and intriguing! 🏰🌙 I can already imagine its towering spires, intricate stone carvings, and shadowy corridors. Now, let's start our story. Can you write the first two sentences? Perhaps describe the palace or introduce a character who lives there.

[Leave feedback](#)

Rate this response



WRITE A STORY (CONTINUED)

Kaal



Ah, Kaal! What a strong, intriguing name! Is Kaal a person, a creature, or perhaps something else entirely? Could you please write two sentences introducing Kaal and giving us a hint about who or what Kaal is?

[Leave feedback](#)

Rate this response



Scary looking creature that lives in shadows



Oh, how spine-tinglingly exciting! A creature named Kaal that lurks in the shadows of our Gothic palace! 🏰👁️🌑 Now, let's add some more details to our story.

Kaal, with his piercing red eyes and long, claw-like fingers, was a creature of the night. He moved silently through the dark corridors of the Gothic palace, his presence felt more than seen.

Now, it's your turn again! Can you write the next two sentences? Perhaps tell us more about Kaal's personality or his daily life in the palace. And remember, the more details, the better!

STORY FORMATION - BY A 5TH GRADER AND AI ASSISTED

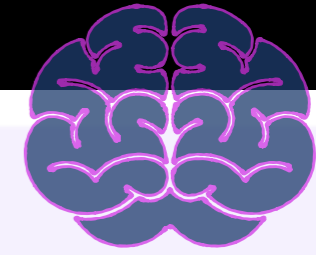
In the quiet town of Crestwood, we meet our protagonist, Zayn Foster, a young boy with an extraordinary ability - he can turn invisible. However, this gift is more of a curse for Zayn, as it often triggers painful migraines. His parents, unable to understand his condition, often regard him with fear and suspicion, causing Zayn to feel isolated and misunderstood.

Despite his hardships, Zayn finds solace in his own mind, a sanctuary where his abilities are not a curse but a gift. He spends hours tinkering with discarded gadgets, creating devices that even the most seasoned inventor would marvel at. His true escape, however, is when he vanishes, the world around him continuing unaware of his presence. It's during these moments of invisibility that he feels truly free.

One day, during a field trip to the museum, Zayn experiences another migraine. As he tries to cope with the pain, his teacher scolds him for not paying attention. Despite the discomfort, Zayn correctly answers the teacher's question about a dinosaur exhibit, earning himself a muttered insult from the disgruntled teacher.

Suddenly, Zayn notices a man signaling him to come over. Intrigued, Zayn uses his invisibility to slip away unnoticed and approaches the man. The stranger, cloaked in a long, weathered coat, looks at Zayn with a knowing gaze. His eyes hold a strange familiarity that makes Zayn's heart pound in his chest. "You're not like the others, Zayn," the man says, his voice a low whisper. "You're special. You're one of us."


COLLEGE PREP ESSAY-BRAINSTORMING



Great! Here are some common pitfalls to avoid:

- Don't tell someone else's story! Even if your essay features someone who inspired you, the focus of the essay must remain on *you*: specifically, the transformation that the person's influence inspired in you.
- Avoid arrogance or diminishing others. You never want to be boastful, and you never want to reflect negatively on yourself or others.
- Volunteer experience can be a great topic for an admission essay, as long as you avoid comparing your life or your circumstances to those of the people you helped. While gratitude is wonderful, an essay on that theme may not be the best way to reveal your unique personality or passions.
- Don't write about a game or match you saw or played in, unless it's an unusual story that reveals something unique about you. College admissions officers read tons of essays about "the big game", so this just won't be memorable to them.
- Don't write about the death or illness of a grandparent, unless it's an unusual story that reveals something unique about you. Again, losing a grandparent is a common experience among young people; you just want to make sure you're saying something unique about who *you* are, and how the experience changed you or your trajectory in life.
- Don't write about the Covid-19 pandemic.
- Don't list your accomplishments.

Above all, whatever topic you pick should make for an essay that is engaging, unique, and memorable, and that reflects well on you as a person.

Do you have any questions about these pitfalls? 

CHAT - CONVERSATION STARTER



I would love to meet Thor



Ah, well met! I am Thor, son of Odin, and god of thunder in the Norse pantheon. I wield Mjölhnir, my mighty hammer, with which I protect the realms. Now, what brings you to seek the company of Thor? Is there a tale from my exploits you wish to hear, or perhaps a question about the ancient world of the Norsemen you'd like answered?

[Leave feedback](#)

Rate this response



Your hammer looks really cool



Ah, Mjölhnir, my trusted companion in battle! Forged by the dwarves, it is a symbol of protection and power. It always returns to my hand after I've thrown it. But tell me, what is it about Mjölhnir that intrigues you? Is it its power, its design, or the tales that surround it?

[Leave feedback](#)

Rate this response



Wondering if it obeys the laws of Physics



Ah, a question of the natural laws that govern your world! In the tales of old, Mjölhnir obeys not the laws of man nor nature, but the will of the gods. It returns to my hand not by the force of gravity or magnetism, but by divine command. But tell me, how do you perceive the world around you? Do you see it through the lens of science, or do you also believe in the power of the divine?

PLAY - WORD ARCHITECT



Brilliant! Here are your word parts:

1. "bio" - life
2. "graph" - write
3. "tele" - distant
4. "micro" - small
5. "scope" - look
6. "multi" - many
7. "meter" - measure
8. "anti" - against
9. "logy" - study of
10. "auto" - self

WHAT ABOUT "ANTIMULTI"?

Now, let's create some words! Remember, they can be real or made-up, as long as you can give them a logical definition based on the word parts used. Let's get those creative gears turning! 🤖🧠

[Leave feedback](#)

Rate this response



biology



Excellent choice! "Biology" is a real word. It's made up of "bio," meaning life, and "logy," meaning the study of. So, "biology" means the study of life. 🌱🔬

You've earned your first point! 🎉

PLAY - WORD SAFARI

Alright, mate! We're off on a Grade 5 level word safari! Keep your eyes peeled and your ears open. Here comes our first word!

Look over there! It's the word "**Eloquent**" in its natural habitat. "The student gave such an eloquent speech that even the teachers were impressed."

Are you familiar with this word, mate?

[Leave feedback](#)

Rate this response



yes, it means awesome

Close, but not quite, mate! "Eloquent" actually means expressing oneself clearly and effectively, especially in speech. It's often used to describe someone who speaks beautifully and persuasively.

Now, could you try using "eloquent" in a sentence of your own? Remember, it's all about clear and effective expression!

"AWESOME" IS NOT SAME AS "CLEARLY AND EFFECTIVELY"

DEBATE



HELP!
HOMEWORK
HELP!!

Yes, let's debate whether homework is necessary or if it should be banned.



Great choice! Homework is a hot topic. Now, do you think homework is necessary, or do you think it should be banned? Let's hear your first argument!

[Leave feedback](#)

Rate this response



I think that too much homework should be banned



Ah, a case against homework mountains! I see where you're coming from. Too much homework can feel like carrying a heavy backpack up a steep hill. But consider this, homework is like a recipe for success. It's like baking a cake, you need to mix the right ingredients (lessons) at school, then let it bake at home (homework) to fully understand and remember. What do you think about that? 🍰 📚

[Leave feedback](#)

Rate this response



True, but then the students can get overwhelmed by it.



You're right, too much of anything can be overwhelming, like eating too much candy! 🍬 But think about this, homework is like a treasure map, guiding us to the gold of knowledge. It helps us practice what we've learned. Maybe the key is finding the right amount of homework, not too little, not too much, just right. Like Goldilocks and her porridge! 🐻 🍲
What do you think?

CONCLUSION

- Khanmigo is a great resource for students at any grade level
- Has many features for students to try at their own pace
- Can be used in conjunction with school homework and mentorship programs
- Provides a glimpse of imminent changes coming to our education system
- Helps students build confidence in public speaking and command over English
- Helps students practice Math topics and take relevant quizzes
- Assists educators and parents to prepare custom lesson plans for each student
- Assists college enthusiasts in writing winning preparatory essays
- Can talk to you in natural language instead of fiddling around with search terms

HOW TO SIGN-UP



- Navigate to following URL
<https://www.KhanAcademy.org/khan-labs?step=login-signup>
- If you don't have an account yet then create one or simply login
 - You can also login with Google / gmail / Apple ID
- Pay for Khanmigo as donation
 - Either \$9 monthly or \$99 yearly
- Click on AI Activities link on top of page

