

Kỳ THI HỌC SINH GIỎI CÁC TRƯỜNG THPT CHUYÊN KHU VỰC DUYÊN HẢI VÀ ĐỒNG BẰNG BẮC BỘ LÀN THỨ XII, NĂM 2022

ĐÁP ÁN ĐỀ THI MÔN: TIẾNG ANH 10

Thời gian: 180 phút (không kể thời gian giao đề)

ĐỀ ĐỀ XUẤT

A. LISTENING (50 points):

Part 1. Complete the notes below. Write ONE WORD for each answer. (10 points – 2 points for each correct answer)

1. floor(s)2. fridge	3. shirts	4. windows	5. balcony
----------------------	------------------	-------------------	------------

Part 2. Listen to the recording and decide whether the following statements are True (T) or False (F). (10 points – 2 points for each correct answer)

1. TRUE 2. FALSE 3. FALSE	4. TRUE 5. FALSE

Part 3. You will hear an interview in which two professional set designers share their experience of working in the theatre. Choose the answer (A, B, C or D) which fits best according to what you hear. (10 points – 2 points for each correct answer)

1. C 2. D	3. C	4. A	5. B
-------------------------	-------------	-------------	-------------

Part 4. Listen to part of a radio program about a device that helps ease depression and complete the following summary. Write NO MORE THAN ONE WORD taken from the recording for each blank. (20 points – 2 points for each correct answer)

1. dons	2. debilitating	3. enmeshed	4. anesthesia/ anaesthesia	5. psychedelic
6. protocol	7. transcranial	8. neuromodulation	9. electrode	10. inhibition

B. LEXICO - GRAMMAR (40 points)

Part 1. Choose one of the words marked A, B, C, or D which best completes each of the following sentences. Write your answers in the corresponding numbered boxes. (20 points -1 point for each correct answer)

1. D	5. D	9. D	13. B	17. C
2. B	6. A	10. A	14. C	18. B
3. A	7. B	11. A	15. A	19. D
4. C	8. C	12. C	16. B	20. B

Part 2. Give the correct form of the words in brackets. Write your answers in the corresponding numbered boxes. (10 points – 1 point for each correct answer)

1. impressionable	2. inflammatory	3. insolvent	4. acquittal	5. amoral
6. downcast	7. awestruck	8. commemorates	9. assimilated	10. counter – productive

Part 3. Complete each of the following sentences with a suitable particle. Write your answer in the boxes provided. (10 points -1 point for each correct answer)

1. In	2. on	3. across	4. off	5. in
6. out	7. on	8. within	9. up	10. off

C. READING (60 points)

Part 1. Read the following passage and decide which answer (A, B, C, or D) best fits each gap. (15 points - 1.5 points for each correct answer)

1. A	2. B	3. C	4. D	5. C
6. A	7. B	8. A	9. C	10. D

Part 2. Read the text below and think of the word which best fits each space. Use only ONE word in each space. There is an example at the beginning (0). (15 points - 1.5 points for each correct answer)

1. come/ learnt/ learned	2. at	3. only	4. Nothing	5. such
6. again	7. wide	8. ourselves	9. What	10. although/ though/ while/ whilst

Part 3. Read the following passage and choose the best answers (A, B, C or D) according to the text. (15 points - 1.5 points for each correct answer)

1. C	2. D	3. C	4. A	5. B
6. A	7. C	8. D	9. A	10. B

Part 4. For questions 1-10, read the following passage and do the tasks that follow. (15 points - 1.5 points for each correct answer)

1. C	2. D	3. B	4. A	5. F
6. shortcomings	7. disc	8. patterns	9. approach	10. Mars

D. WRITING (50 points)

Part 1:

Content (8 points)	 Providing all main ideas and details as required Communicating intentions sufficiently and effectively
Language (8 points)	 Demonstration of a variety of vocabulary and structures appropriate to the level of English language gifted upper-secondary school students Good use and control of grammatical structures Good punctuation and no spelling mistakes Legible handwriting
Organization and Presentation (4 points)	 Ideas are well organized and presented with coherence, cohesion, and clarity The essay is well-structured

Content (12 points)	 Providing all main ideas and details as required Communicating intentions sufficiently and effectively
Language (12 points)	 Demonstration of a variety of vocabulary and structures appropriate to the level of English language gifted upper-secondary school students Good use and control of grammatical structures Good punctuation and no spelling mistakes Legible handwriting
Organization and Presentation (6 points)	 Ideas are well organized and presented with coherence, cohesion, and clarity The essay is well-structured

AUDIO SCRIPTS

PART 1 Jacinta Hello, Easy Life Cleaning Services, Jacinta speaking. Client Oh hello. I'm looking for a cleaning service for my apartment – do you do domestic cleaning? Jacinta Sure. Client Well, just a one-bedroom flat. Do you have a basic leaning package? Jacinta Yes. For a one-bedroom flat we're probably looking at about two hours for a clean. So we'd do a thorough clean of all surfaces in each room, and polish them where necessary. Does your apartment have carpets? Client No, I don't have any, but the <u>floor would need cleaning.</u> (1) Jacinta Of course – we'd do that in every room. And we'd do a thorough clean of the kitchen and bathroom. Client OK. Jacinta Then we have some additional services which you can request if you want – so for example, we can clean your oven for you every week. Client Actually, I hardly ever use that, but <u>can you do the fridge</u> ? (2) Jacinta Sure. Would you like that done every week? Client Yes, of course. Client Yes, of course. Jacinta The we have could also clean your microwave if you want. Jacinta Sure. Would you like that done every week? Client Yes, of course. Client It wouldn't be much, just my shirts for work that week. (3) <th></th> <th>Nebro Sexii 15</th>		Nebro Sexii 15
Client Oh hello. I'm looking for a cleaning service for my apartment – do you do domestic cleaning? Jacinta Sure. Client Well, just a one-bedroom flat. Do you have a basic leaning package? Jacinta Yes. For a one-bedroom flat we're probably looking at about two hours for a clean. So we'd do a thorough clean of all surfaces in each room, and polish them where necessary. Does your apartment have carpets? Client No, I don't have any, but the <u>floor would need cleaning.</u> (1) Jacinta Of course – we'd do that in every room. And we'd do a thorough clean of the kitchen and bathroom. Client OK. Jacinta Then we have some additional services which you can request if you want – so for example, we can clean your oven for you every week. Client Actually, I hardly ever use that, but <u>can you do the fridge</u> ? (2) Jacinta Sure. Would you like that done every week? Client Yes, of course. Client Yes, of course. Client It wouldn't be much, just my shirts for work that week. (3) Jacinta That's fine. And we could also clean your microwave if you want. Client No, I wipe that out pretty regularly so there's no need for that.	PART 1	
cleaning?JacintaSure.ClientWell, just a one-bedroom flat. Do you have a basic leaning package?JacintaYes. For a one-bedroom flat we're probably looking at about two hours for a clean. So we'd do a thorough clean of all surfaces in each room, and polish them where necessary. Does your apartment have carpets?ClientNo, I don't have any, but the floor would need cleaning. (1)JacintaOf course – we'd do that in every room. And we'd do a thorough clean of the kitchen and bathroom.ClientOK.JacintaThen we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but <u>can you do the fridge</u> ? (2)JacintaSure. Would you like that done every week?ClientYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Jacinta	Hello, Easy Life Cleaning Services, Jacinta speaking.
JacintaSure.ClientWell, just a one-bedroom flat. Do you have a basic leaning package?JacintaYes. For a one-bedroom flat we're probably looking at about two hours for a clean. So we'd do a thorough clean of all surfaces in each room, and polish them where necessary. Does your apartment have carpets?ClientNo, I don't have any, but the floor would need cleaning. (1)JacintaOf course – we'd do that in every room. And we'd do a thorough clean of the kitchen and bathroom.ClientOK.JacintaThen we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but <u>can you do the fridge</u> ? (2)JacintaSure. Would you like that done every week?ClientYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Client	Oh hello. I'm looking for a cleaning service for my apartment – do you do domestic
ClientWell, just a one-bedroom flat. Do you have a basic leaning package?JacintaYes. For a one-bedroom flat we're probably looking at about two hours for a clean. So we'd do a thorough clean of all surfaces in each room, and polish them where necessary. Does your apartment have carpets?ClientNo, I don't have any, but the floor would need cleaning. (1)JacintaOf course – we'd do that in every room. And we'd do a thorough clean of the kitchen and bathroom.ClientOK.JacintaOK.JacintaOK.ClientOK.JacintaClient we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but can you do the fridge? (2)JacintaSure. Would you like that done every week?ClientYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.		cleaning?
JacintaYes. For a one-bedroom flat we're probably looking at about two hours for a clean. So we'd do a thorough clean of all surfaces in each room, and polish them where necessary. Does your apartment have carpets?ClientNo, I don't have any, but the floor would need cleaning. (1)JacintaOf course – we'd do that in every room. And we'd do a thorough clean of the kitchen and bathroom.ClientOK.JacintaOK.I acintaOK.JacintaOK.ClientOK.JacintaClient we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but can you do the fridge? (2)JacintaSure. Would you like that done every week?ClientYes, of course.ClientYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Jacinta	Sure.
we'd do a thorough clean of all surfaces in each room, and polish them where necessary. Does your apartment have carpets?ClientNo, I don't have any, but the <u>floor would need cleaning.</u> (1)JacintaOf course – we'd do that in every room. And we'd do a thorough clean of the kitchen and bathroom.ClientOK.JacintaThen we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but <u>can you do the fridge</u> ? (2)JacintaSure. Would you like that done every week?ClientYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Client	Well, just a one-bedroom flat. Do you have a basic leaning package?
Does your apartment have carpets?ClientNo, I don't have any, but the floor would need cleaning. (1)JacintaOf course – we'd do that in every room. And we'd do a thorough clean of the kitchen and bathroom.ClientOK.JacintaThen we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but can you do the fridge? (2)JacintaSure. Would you like that done every week?ClientYes, definitely. And would ironing clothes be an additional service you can do?JacintaIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Jacinta	Yes. For a one-bedroom flat we're probably looking at about two hours for a clean. So
ClientNo, I don't have any, but the floor would need cleaning. (1)JacintaOf course – we'd do that in every room. And we'd do a thorough clean of the kitchen and bathroom.ClientOK.JacintaThen we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but can you do the fridge? (2)JacintaSure. Would you like that done every week?ClientYes, definitely. And would ironing clothes be an additional service you can do?JacintaIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.		we'd do a thorough clean of all surfaces in each room, and polish them where necessary.
JacintaOf course – we'd do that in every room. And we'd do a thorough clean of the kitchen and bathroom.ClientOK.JacintaThen we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but <u>can you do the fridge</u> ? (2)JacintaSure. Would you like that done every week?ClientYes, definitely. And would ironing clothes be an additional service you can do?JacintaYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.		Does your apartment have carpets?
bathroom.ClientOK.JacintaThen we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but can you do the fridge? (2)JacintaSure. Would you like that done every week?ClientYes, definitely. And would ironing clothes be an additional service you can do?JacintaYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Client	No, I don't have any, but the floor would need cleaning . (1)
ClientOK.JacintaThen we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but can you do the fridge? (2)JacintaSure. Would you like that done every week?ClientYes, definitely. And would ironing clothes be an additional service you can do?JacintaYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Jacinta	Of course – we'd do that in every room. And we'd do a thorough clean of the kitchen and
JacintaThen we have some additional services which you can request if you want – so for example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but can you do the fridge? (2)JacintaSure. Would you like that done every week?ClientYes, definitely. And would ironing clothes be an additional service you can do?JacintaYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.		bathroom.
example, we can clean your oven for you every week.ClientActually, I hardly ever use that, but can you do the fridge? (2)JacintaSure. Would you like that done every week?ClientYes, definitely. And would ironing clothes be an additional service you can do?JacintaYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Client	OK.
ClientActually, I hardly ever use that, but can you do the fridge? (2)JacintaSure. Would you like that done every week?ClientYes, definitely. And would ironing clothes be an additional service you can do?JacintaYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Jacinta	Then we have some additional services which you can request if you want – so for
JacintaSure. Would you like that done every week?ClientYes, definitely. And would ironing clothes be an additional service you can do?JacintaYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.		example, we can clean your oven for you every week.
ClientYes, definitely. And would ironing clothes be an additional service you can do?JacintaYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Client	Actually, I hardly ever use that, but can you do the fridge? (2)
JacintaYes, of course.ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Jacinta	Sure. Would you like that done every week?
ClientIt wouldn't be much, just my shirts for work that week. (3)JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Client	Yes, definitely. And would ironing clothes be an additional service you can do?
JacintaThat's fine. And we could also clean your microwave if you want.ClientNo, I wipe that out pretty regularly so there's no need for that.	Jacinta	Yes, of course.
Client No, I wipe that out pretty regularly so there's no need for that.	Client	It wouldn't be much, just my shirts for work that week. (3)
	Jacinta	That's fine. And we could also clean your microwave if you want.
	Client	No, I wipe that out pretty regularly so there's no need for that.
Jacinta We also offer additional services that you might want a bit less often, say every month. So	Jacinta	We also offer additional services that you might want a bit less often, say every month. So
for example, if the inside of your windows need cleaning (4), we could do that.		for example, if the inside of your windows need cleaning (4), we could do that.
Client Yes, that's be good. I'm on the fifteenth floor, so the outside gets done regularly by	Client	Yes, that's be good. I'm on the fifteenth floor, so the outside gets done regularly by
specialists, but the inside does get a bit grubby.		specialists, but the inside does get a bit grubby.
Jacinta And we could arrange for your curtains to get cleaned if necessary.	Jacinta	And we could arrange for your curtains to get cleaned if necessary.
Client No, they're OK. But would you be able to do something about the balcony? (5) It's	Client	No, they're OK. But would you be able to do something about the balcony? (5) It's

	quite small and I don't use it much, but it could do with a wash every month or so.
Jacinta	Yes, we can get the pressure washer onto that.

PART 2:

Plastic is strong and cheap, and it can be molded easily into all kinds of forms and products. But there are downsides to this commonly used material. After it's used, plastic often turns into trash that's nearly indestructible. And most plastic is made from oil, and we can't count on oil being around forever. (1)

Tom Turng is trying to deal with these problems. Turng is a mechanical engineer at the University of Wisconsin in Madison. <u>He's working on ways to make plastic out of corn and soybeans. (2)</u> He says this kind of plastic can be turned into compost after it's used. He says the plastic will decompose just like leftover vegetables or garden clippings as long as the plastic is chopped up.

"You just need to have a proper composition of water, air and temperature. You mainly have to chop the parts into small pieces, so that the bacteria or other micro-organisms can consume them."

<u>Turng says special composting facilities someday could reduce mountains of discarded plastic into</u> just carbon dioxide, water and some leftover organic material. (3)

Turng says plastics are made of strings of carbon and hydrogen, and those are some of the main ingredients in both oil and plants. In fact, the first plastics were made from plant materials more than 100 years ago. (4)

Turng is working on materials known as bioplastics. He says they're not as strong as the petroleum-based variety and they're harder to work with. (5) He's experimenting with additives that will make bioplastics stronger and easier to mold. When engineers get this recipe right, they might initiate the replacement of petro-plastics with a new variety that's bio-degradable.

PART 3.

111111 01	
Interviewer:	My guests today are Neil Strellson and Vivienne Barnes, who work as set designers in
	the theatre. Neil, you've worked on a number of well-known plays, especially comedies
	and musicals. Was it always your ambition to be a set designer?
Neil:	I don't know about always! Unlike actors, who often become smitten with the idea of
	going on stage as children after being taken to their first show, I really stumbled into
	designing quite late on. Although my parents did take me to see some shows, theatre
	wasn't a career on the horizon. I mean, I always liked to build things but my creative
	efforts were directed towards stuff like treehouses. I did English at university, so did get
	to read and understand quite a few plays, but it was pure chance that a friend asked
	me to design a set for a student musical he was directing. It was a thrilling
	experience, and was what led me to enter drama school on the postgraduate
	programme, honing my artistic skills and learning the ropes. [1]
Interviewer:	And after that, you came to London. How did you get started working in the field?
Neil:	I knew some names of designers to call up to get some work as an assistant. You can
	actually make a better living as an assistant set designer than as a designer because it's a
	salaried position. But more significantly, I needed a hefty apprenticeship period because
	I'd sort of lost my way a bit as a designer. On the post-grad course, I got wrapped up
	trying to assimilate all the various skills. I was young and very impressionable. This
	happens to actors too. They come out of drama school terribly academic, worrying about
	their voice lessons and movements. What you need to do is to put all the training in
	the background and get some hands-on experience – an apprenticeship's great for
	doing that, and I spent three years doing one. [2]

Interviewer:	Now Vivienne, you've designed a lot of successful shows, tell us a bit about how you		
interviewer:	work on a production. How does the process begin?		
Vivienne:	Well, what happens is, the director calls to ask if you're interested and you read the play		
vivienne.			
	to decide whether to take it on. <u>Having an affinity with a play is pretty vital. If you</u>		
	don't care about it, there's no point in doing it because you'll never come up with		
	good ideas. [3] After that, you and the director start to have conversations about things		
	like how to make the scenes flow into one another or how to make the transition from		
	one visual environment to another effortlessly. I also do a lot of sketches to try out		
	various schemes until something starts to make sense. These also show the director		
	where I'm heading. The script generally gives you the lead – whether you need, say,		
	moving scenery, or whether how the stage is lit is enough to establish a different sense		
	of place.		
Interviewer:	Now, you often work on several projects at once. How does that work?		
Vivienne:	I do about ten plays a year, and used to do more when money was an issue for me at the		
	start. I don't find it that hard. It's distracting only if one production's having serious		
	problems. Otherwise, I'm totally committed to each one. Actually, it helps me to		
	keep coming up with new ideas if I'm constantly changing my focus from one show		
	to another – there's a kind of cross-fertilisation goes on – I wouldn't want to lose		
	that. [4] And you can also be just a little less nervous on the opening night than the		
	actors and director, because you do have other irons in the fire.		
Interviewer:	Now, you've both worked on sets that get mentioned in reviews, sometimes getting a		
	better review than the show.		
Neil:	Sometimes, yeah. A good set's not easy to design, but it's not nearly as tricky as writing		
	a new play. Unlike a lot of actors who claim not to pay attention to reviews, I keep up		
	with what critics say about all productions, not just my own. That helps you keep any		
	criticisms in perspective. Maybe a critic's been harsh on other productions or has		
	fixed views about set design. [5]		
Vivienne:	Well, I've never actually come across that. [5] But, in any case, there's no glory in		
, , , , , , , , , , , , , , , , , , , ,	hearing it was a great set for a dud play, and if there's a negative review of the whole		
	production, then the set's still part of that whole – so you can't dodge it.		

PART 4:

A very small group of just several hundred Americans is trying an at-home medical treatment involving electrical stimulation of part of the brain.

It looks a little "weird science."

But the headpiece that Susan Meiklejohn <u>dons (1)</u> daily is giving her head peace—peace and relief from the deep, <u>debilitating (2)</u> depression from which she has suffered most of her life.

SUSAN MEIKLEJOHN: I had a very, very stressful — overwhelmingly stressful — childhood. I had a violent father. And at 11, was the first time I had suicidal ideation.

NEWSY'S JASON BELLINI: How old are you now?

MEIKLEJOHN: 68. So, I've never gotten past the ideation phase. I've never attempted suicide. But I certainly have been **<u>enmeshed (3)</u>** in that ideation.

Meiklejohn, a retired college professor and amateur artist, is one of nearly three million adults in America with depression that does not respond to medication. Now she's one of a very small group — just several hundred — trying an at-home medical treatment involving electrical stimulation of part of the brain.

BELLINI: How many medications have you tried?

MEIKLEJOHN: I'd say 10. ... I have always been very, very eager to do what it takes to get out of this. So she tried ketamine —most commonly used in **anesthesia (4)** —forking over \$16,000 out of pocket to see whether the new **psychedelic (5)** treatment, now being offered in hundreds of U.S. clinics, could provide her with some relief. It did, but not for long.

"It makes you feel great," Meiklejohn said. "So, that lasted for about three days. And then it's right back again."

Back again to suicidal ideation. Then, a few months ago, Meiklejohn heard about a new treatment **protocol** (6) — one she could try at home.

It's provided by a team led by Leigh Charvet, who is a neuropsychologist at NYU Langone Health. She's pioneering research in <u>transcranial (7)</u> direct current stimulation (tDCS) as a treatment for a wide range of neurological disorders, depression among them.

"I have to say, of all of our experience with tDCS, the response in the depression trial has been absolutely remarkable," Charvet said.

And the treatment is considered low-risk enough to let Newsy's Jason Bellinni try it, powered up.

At his lab, at the City College of New York, Marom Bikson develops cutting edge methods of "neuromodulation." (8)

"Neuromodulation as a field is the use of devices to deliver energy in a controlled way to the nervous system to change the body," he said. "When you think something, when you feel something, it's all electricity. We're adding electricity into that mix. So, it's sort of, maybe not a surprise that an electrical organ is sensitive to electricity coming in."

BELLINI: What do you think is most exciting right now when it comes to this field generally?

MAROM BIKSON: One is more and more sophisticated technologies that can deliver energy to the nervous system in a more intentional and targeted way. So, more and more specificity.

To demonstrate, Bikson suited Bellini up for an experiment to see if targeted electrical stimulation can improve one's concentration while doing a boring, repetitive task.

BELLINI: Is there a sweet spot you're trying to hit?

"This <u>electrode (9)</u> here is roughly over a part of your brain called the dorsolateral prefrontal cortex," Bikson said.

That's an area of the brain associated with problem solving, attention switching, memory management and **<u>inhibition (10)</u>**.