

S.6 English Language

Topic: **Meeting aliens for the first time? Here's what to do**

Week: 2nd Week (10-14 Feb)

Read the following text and answer questions 1-10.

Meeting aliens for the first time? Here's what to do

- [1] If you're like most people, you dreamed as a kid of becoming an astronaut – flying and floating through space, visiting other worlds, and meeting intelligent species from other planets. And, if you're like most people, your dream didn't come true. If you don't end up becoming an astronaut, though, there is still hope, according to Dr Nancy Kim, a scientist at the American space agency, NASA. She specializes in xenopsychology, or the study of alien minds. 'We won't contact aliens,' she says. 'They'll contact us.'
- [2] So, you don't have to go to space. You could still be the first human to meet aliens, say, if they touched down on Lantau one breezy evening as you hiked down from sunset peak. That's the good news. The bad news? Greeting aliens sounds like a ridiculously difficult job.
- [3] For one, how are you supposed to talk to them? 'Don't talk to them,' Dr Kim says. After all, even if they have some kind of 'hearing', they probably won't speak English. (If they do, they'll let you know.) So should you write instead? 'You could try,' says Dr Kim. (As long as you had taken paper and pen on your hike.) Remember that they won't understand human letters or numbers, or even simple symbols that we assume are intuitive – an arrow pointing to something, or a circle around something important. So if you want to express the number three, don't write '3', make three little lines or dots. Easy, right?
- [4] 'However,' Dr Kim continues, 'they may not be able to see, or at least not as we do.' In other words, they may not be able to sense ink markings on paper. (One way to check is to look for the use of different colours on their spaceship.) If that's the case, you'll have to use physical objects instead. The aliens should definitely have a way of mapping the world around them in 3D (like we do with vision). So, if you clear a space on the ground and put three stones there, they should get the idea of 'three'. Hopefully. If they made it to Earth, we're assuming they're pretty smart.
- [5] Now that you're communicating with ease, what should you say? You'll want to prove that humans are smart – not as smart as aliens, maybe, but smarter than other Earth-dwelling animals. The best way to do this is with maths. Maths is basic, so important ideas can be expressed in simple terms; and, unlike biology, for example, it won't vary from planet to planet. The aliens know about the same triangles we do, even if they don't call them that.
- [6] So, draw a triangle with a 90-degree angle. Label the sides '3', '4' and '5' with dots, according to length. Ta-da! You've proven that you understand some basic facts about the relationship between the angles and sides of a triangle. (Even if you

don't really understand, because you slept through trigonometry class, it's best to pretend that you do.) Hopefully, the aliens will sit down for a long discussion with our top human scientists and mathematicians at some later point. The things they discuss then will make triangles seem childish. Still, 'sharing even basic knowledge will show that while we're not all geniuses, we can think,' says Dr Kim. 'We're not just rocks, trees or fish.'

30 [7] Of course, if you could do a bit of fancier maths, that would be better, so pay attention in class. To reach the next level, you'll probably have to teach them our numerals. Show them that '1' means one dot, '2' means two dots, and so on. Go up to at least 11, to give them an idea of how higher numbers work. Then do some simple calculations: $1+1=2$. $1+2=3$. They'll start to get an idea of what '+' and '=' mean.

35 [8] If the maths has gone smoothly, try moving on to some concepts that are trickier to express. They'll have seen the solar system on their way to Earth, so they should recognize it if you draw it, and therefore see that we understand a bit about the space around our home planet. Try drawing a giant dot, for the sun; four tiny dots in a row next to it, for the small inner planets; and four more medium dots, for the gassy outer planets. Then, sketch an oval around the sun, passing through the third planet. This shows the shape of a planetary orbit, and it highlights the Earth, showing that you know where you live.

40 [9] Again, even though the knowledge you are sharing is quite basic, it may be enough to impress them. 'The aliens don't need to know, at this first meeting, everything that humans have discovered about every distant corner of the universe,' says Kim. 'Even knowing our solar system shows that we are curious and deliberately looking outwards to learn.'

[10] If things are going really well – if the aliens are particularly good at interpreting your scribbles – you could try to display your expertise in additional fields, for example by drawing a diagram of an atom or molecule, or by mapping an evolutionary progression. (Best not to bother with art or history or anything like that though.)

45 [11] Once you're done with the fun of academic discussion, you can move on to the hard part: intergalactic politics. It will be your job to introduce the aliens to our human leaders. You will also become instantly famous, and perhaps an important leader yourself, as the person who first met them and who understands them best. Many people will treat you as a hero, while others, for political or religious reasons, will want to kill you. Say goodbye to your normal life, forever.

50 [12] All of this is assuming that the aliens don't kill you when they land. Any aliens who can travel to planet Earth would surely have the technology to destroy us whenever they wanted, so if they land here it suggests they aren't aggressive. However, they may kill you accidentally. Or, they may assume we are dumb animals and use us as food. That's why it's so important to prove we have brains by showing them the triangles and so on. Your life, and everyone else's, may depend on it. Don't mess up.