

Listen and complete the text

- a flip c geographical e magnetic g needle i poles
b compass d magnet f move h north j south

Imagine an explorer in the freezing Arctic. She is looking for the North Pole, but how does she find it? Well, she probably has a 1..... that points to the north. The Earth is like a giant 2..... It has two 3....., the north and south poles. The Earth also has two 4..... poles, but they are not in the same place as the 5..... poles. If you use a compass a long way from the North Pole, it points approximately to the position of the North Pole. But as you move closer to the North Pole, the compass isn't very helpful, because it always points to the magnetic 6..... pole, which is about 500 km away from the geographical North Pole. But that's not the only problem! The magnetic poles 7..... slowly over the years, unlike the geographical poles, which are always in the same place. Scientists think the poles move about 10 km every year. And that doesn't help our explorer either! In fact, scientists know that the poles actually 8..... from north to south. Imagine that! Our explorer gets out of her tent one morning and finds that her compass 9..... is pointing 10..... ! But it doesn't happen quite like that. The magnetic flip is a very slow process. It takes hundreds of thousands of years to complete. So our explorer is safe, for the moment...