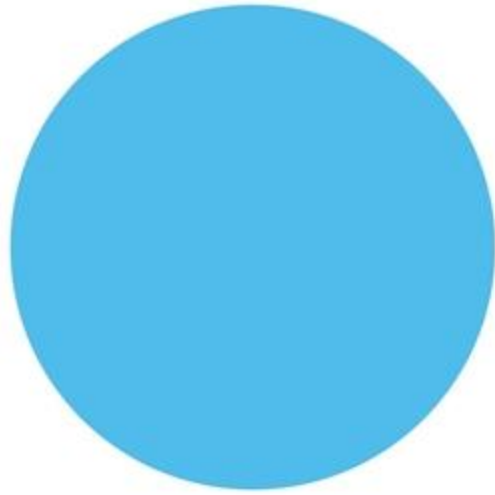


QUANTUM ENTANGLEMENT

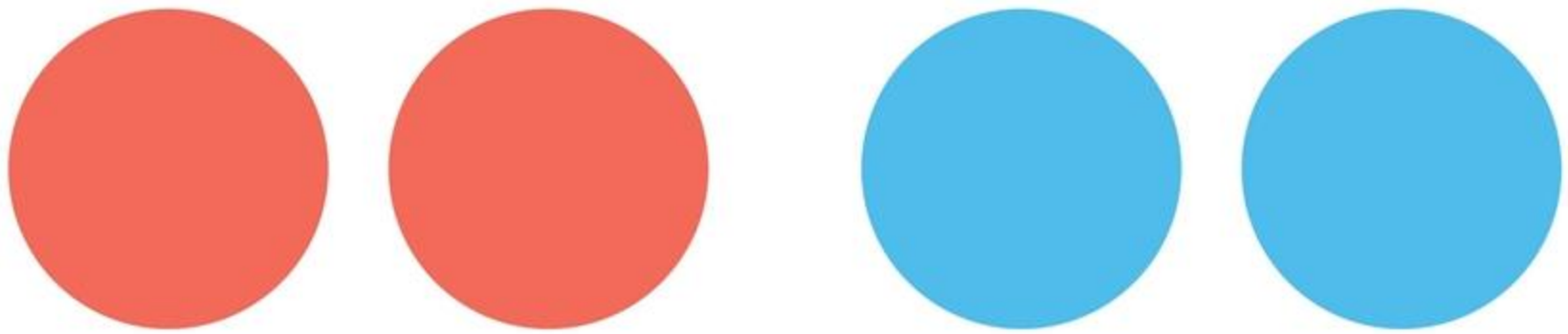
for
babies



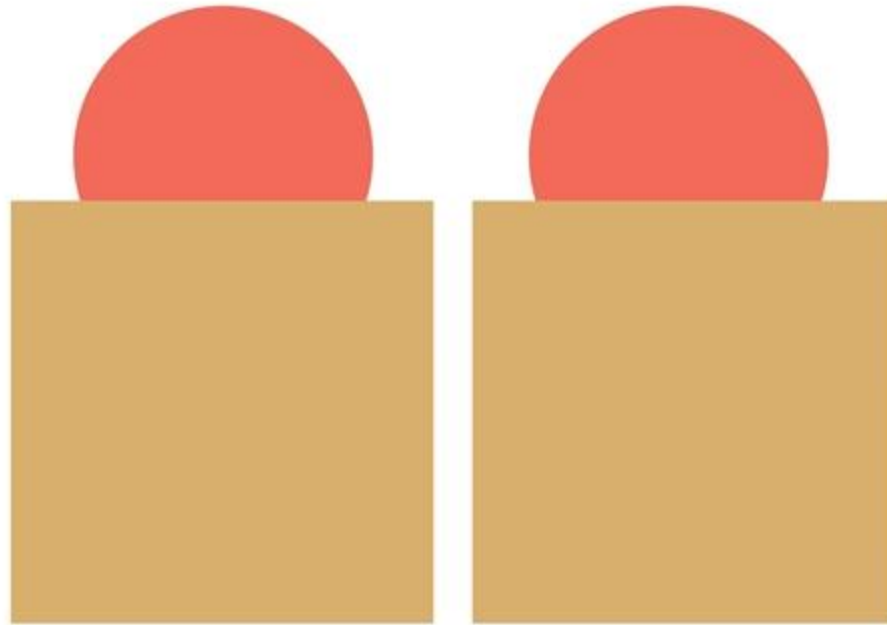
Chris Ferrie



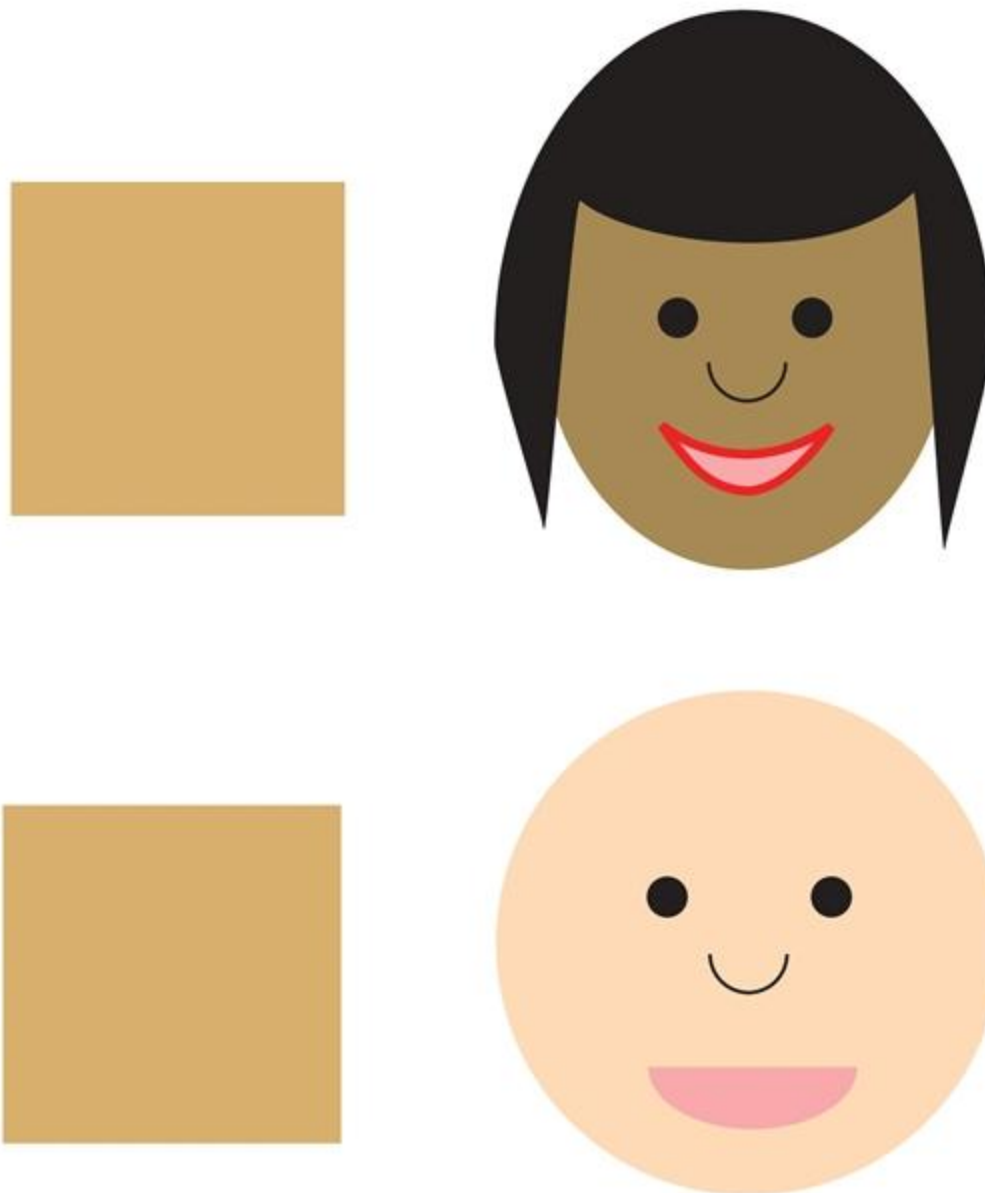
This is a ball.



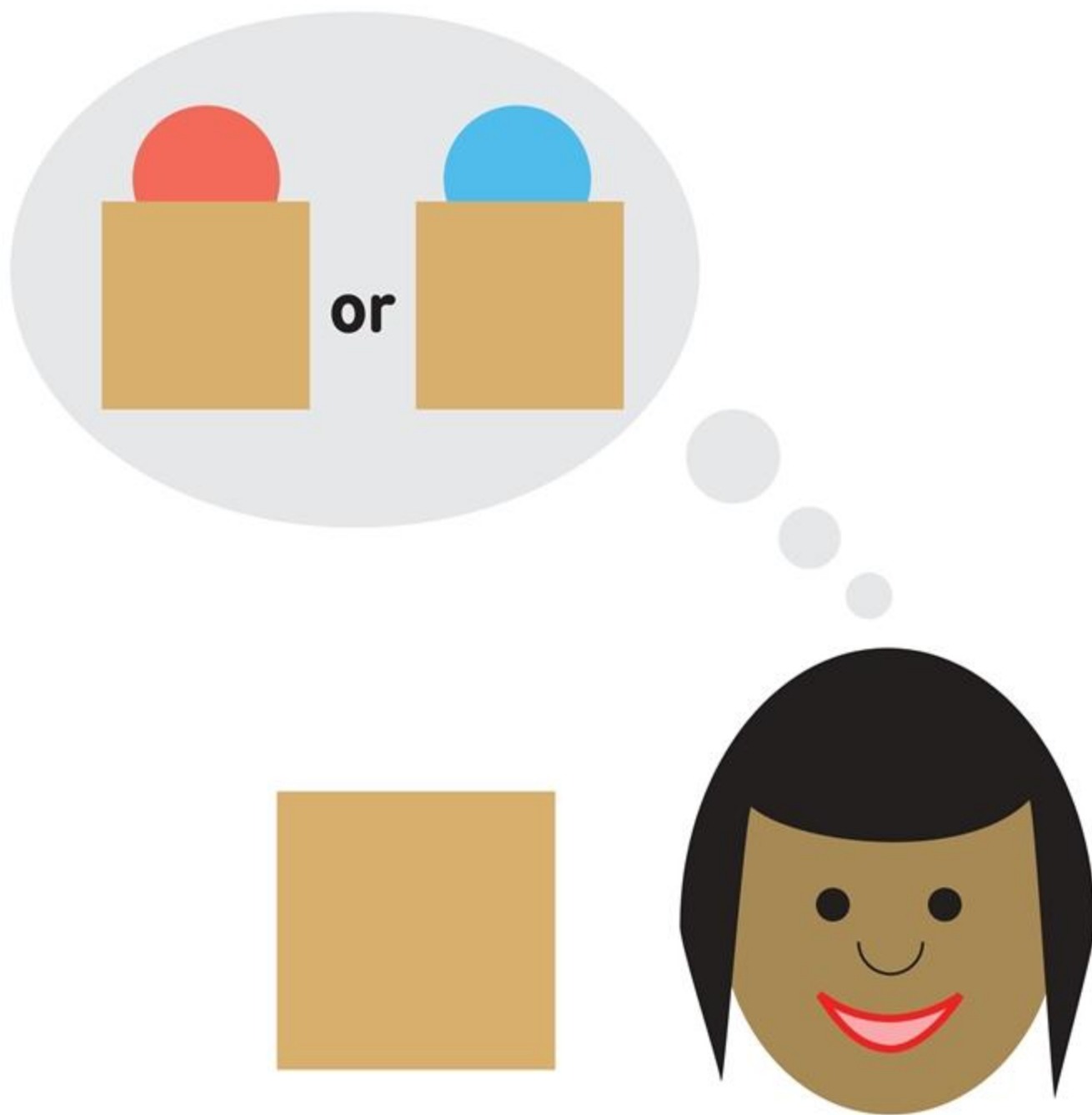
Two red balls. Two blue balls.



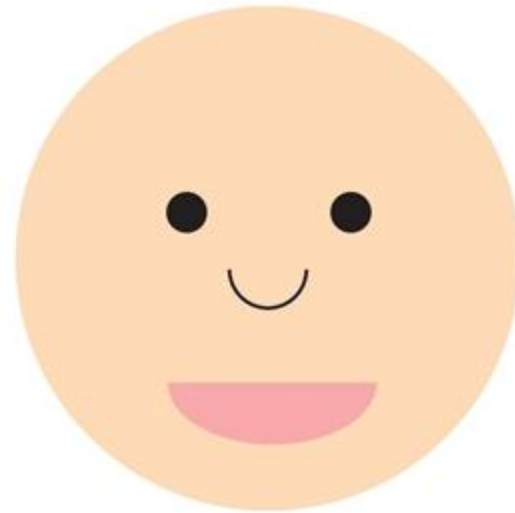
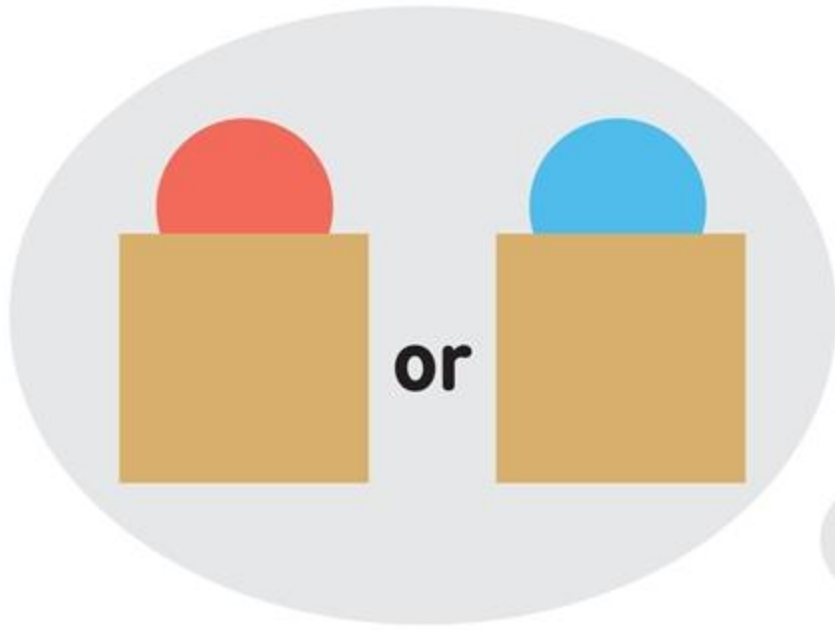
**We pick two balls of the same color
and hide them in boxes.**



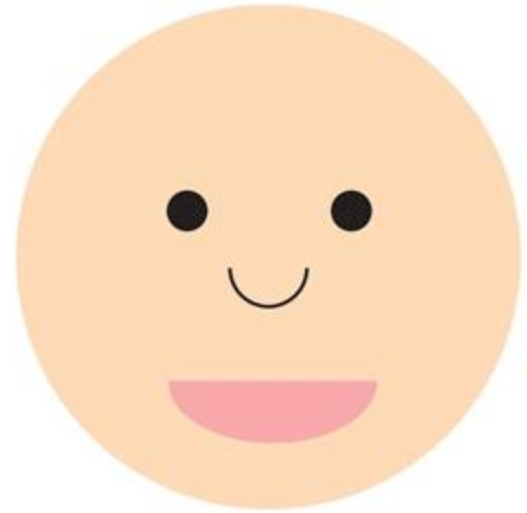
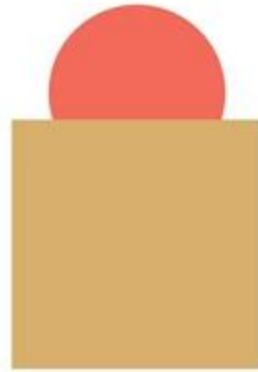
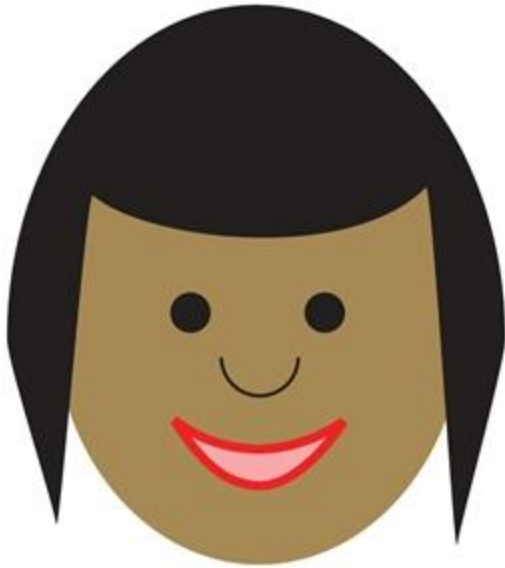
One box for Alice. And one box for Bob.



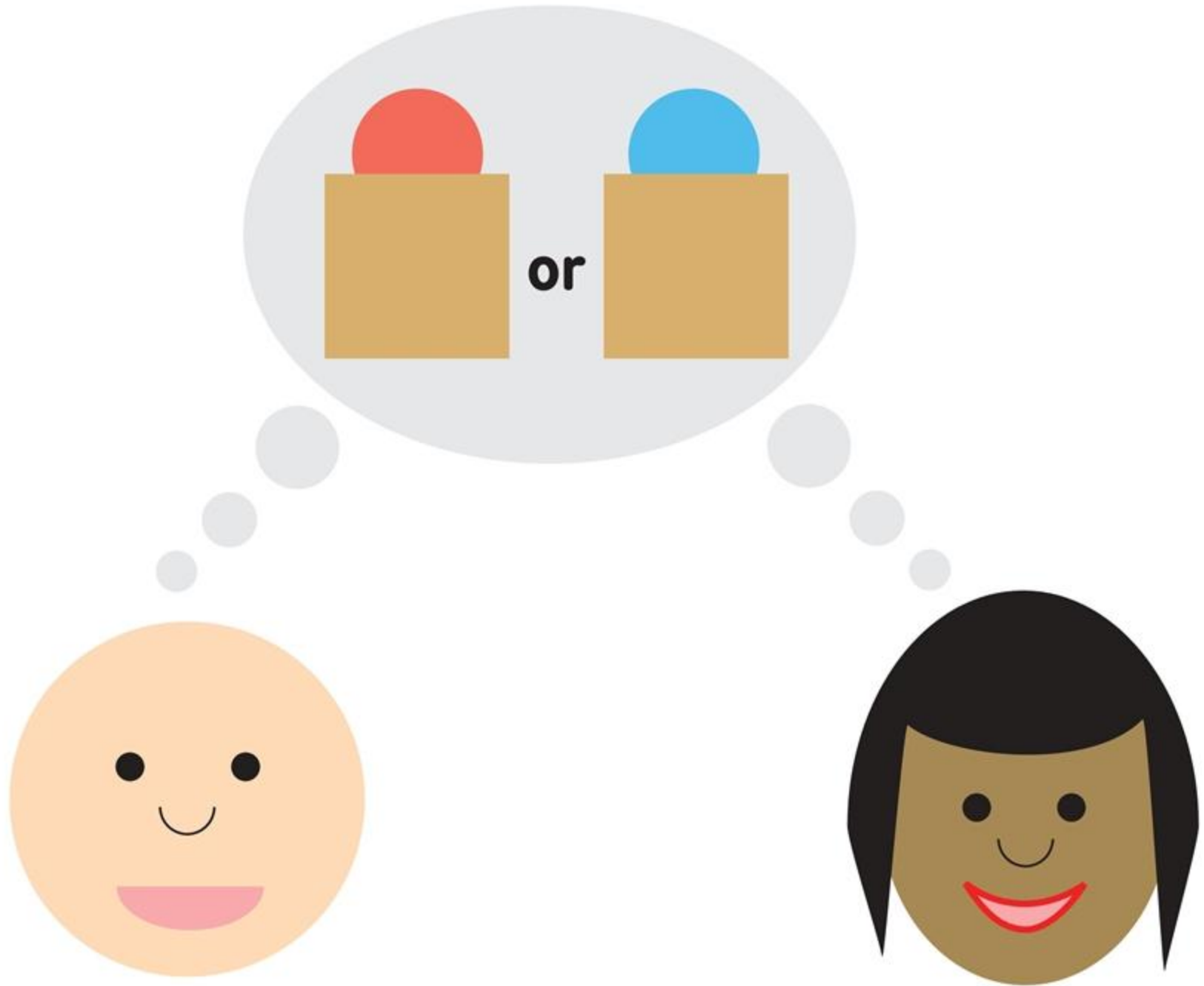
Alice does not know what is in her box.



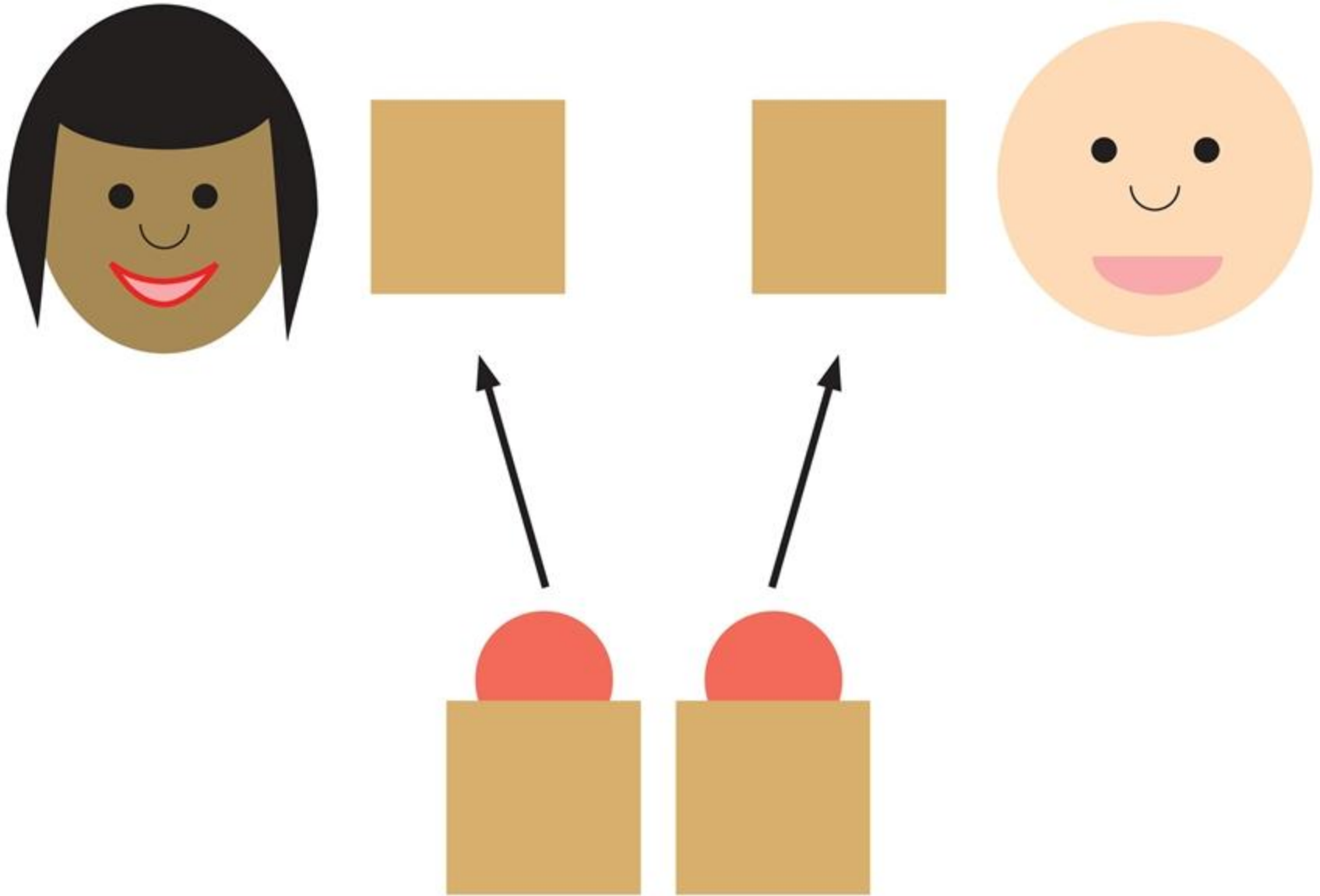
Bob does not know what is in his box.



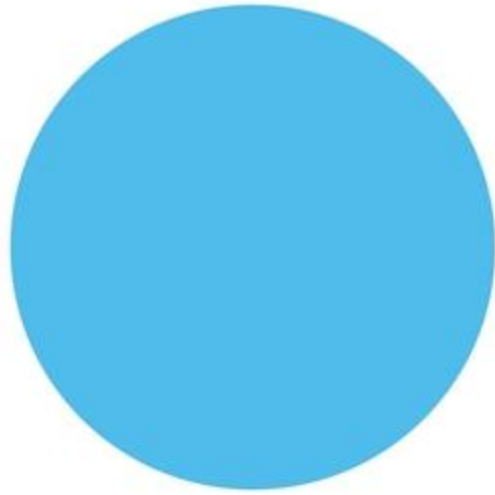
**They always have the same color
when they open their boxes!**



**Alice and Bob do not know
what is in each box.**



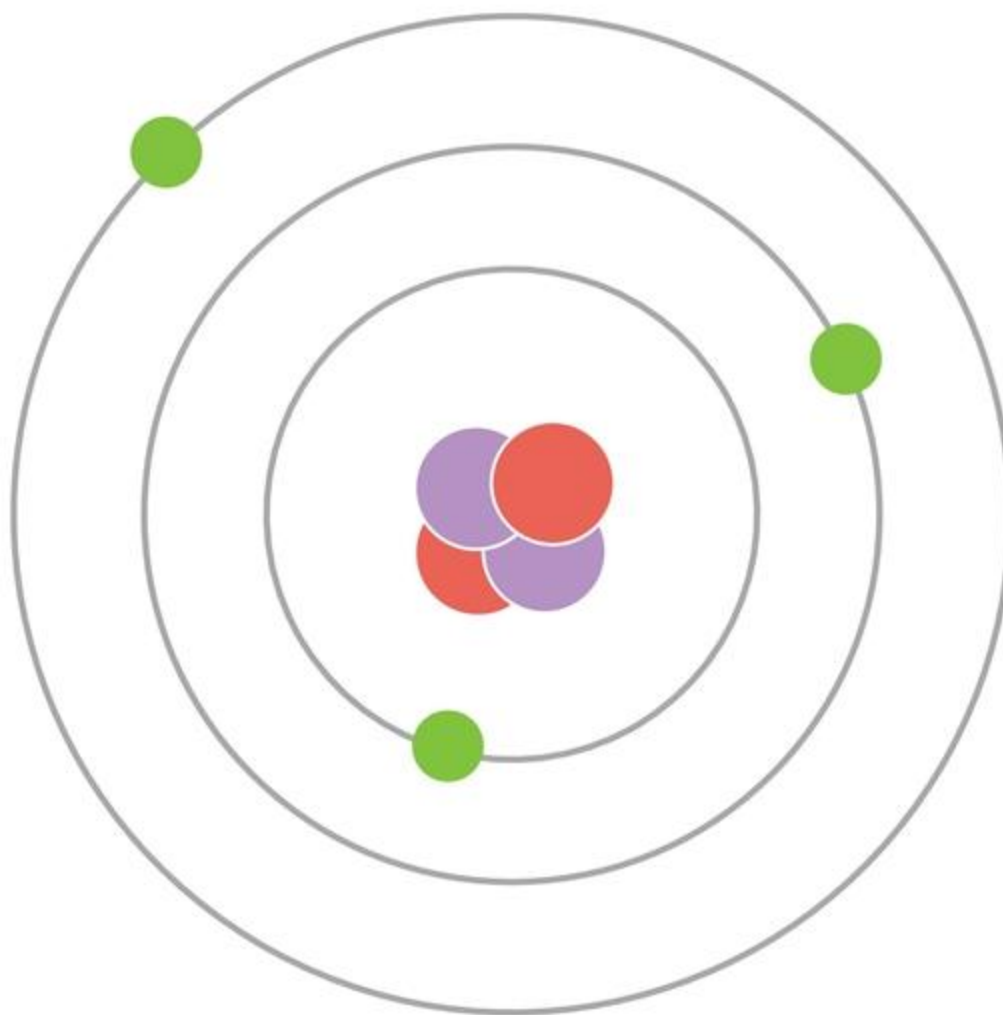
WE put the balls in the boxes for Alice and Bob. So we always know what color is in each box!



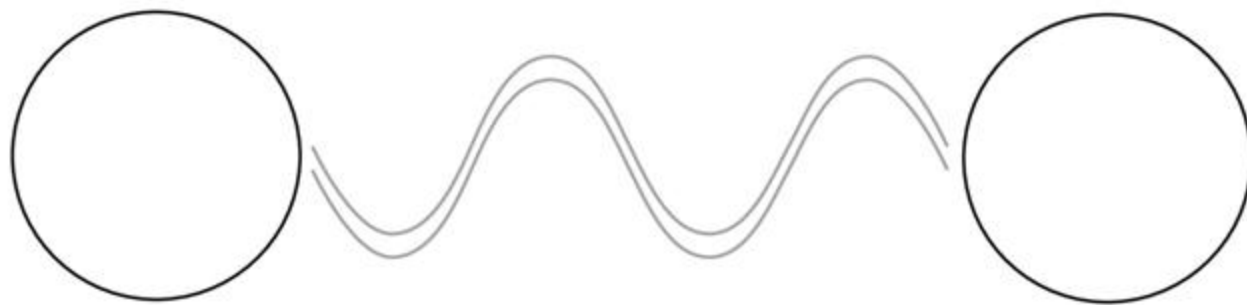
This is a ball.



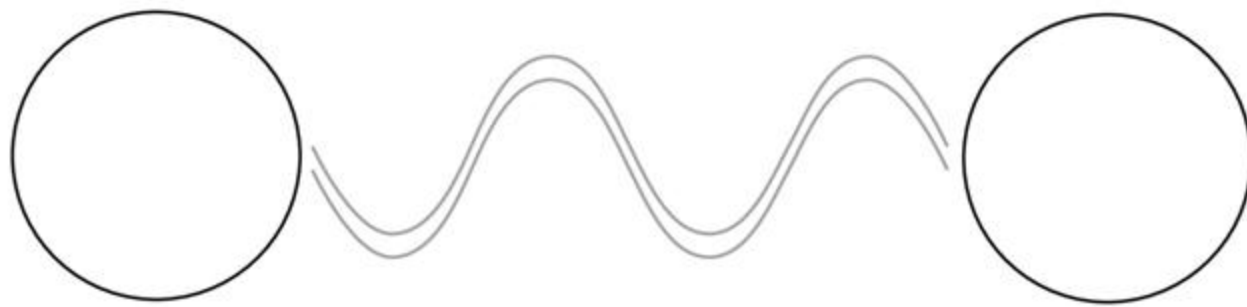
All balls are made of atoms.



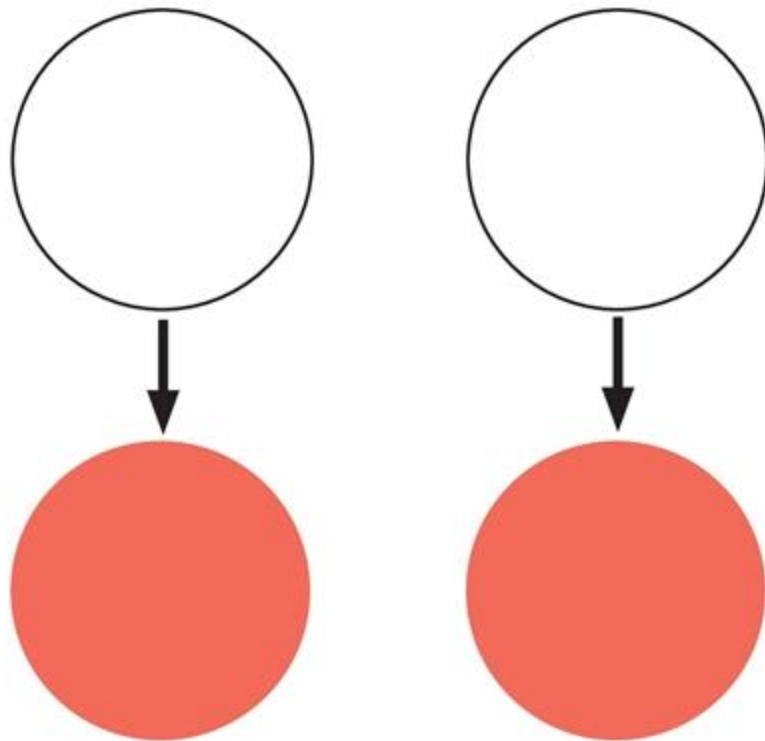
All atoms are made of particles.



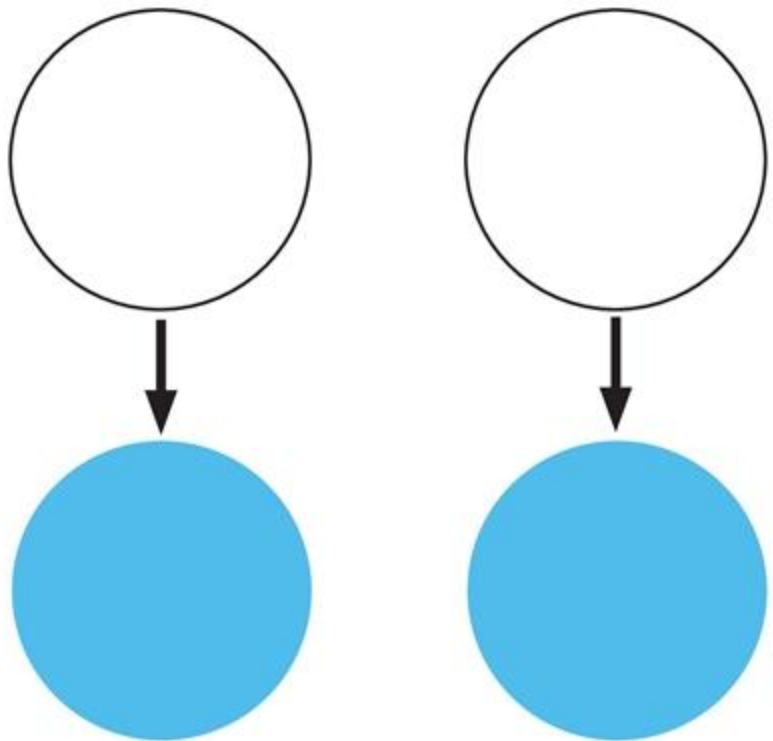
**In quantum physics,
particles can be entangled.**



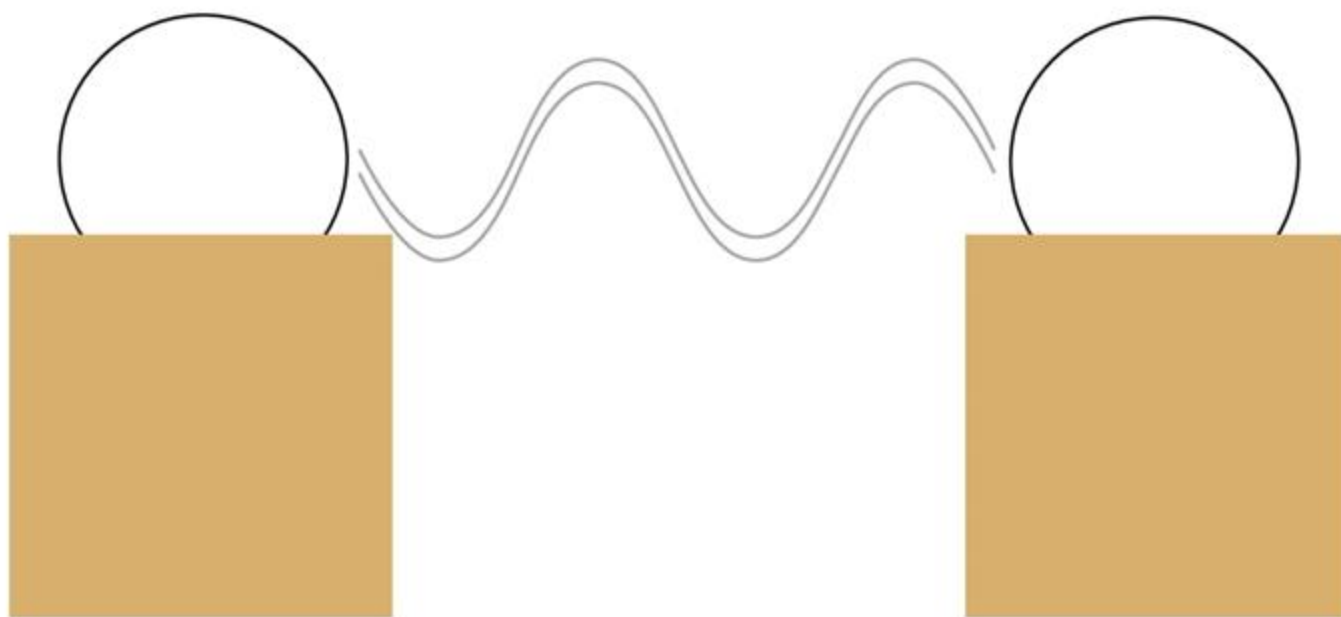
Entangled particles share a special bond.



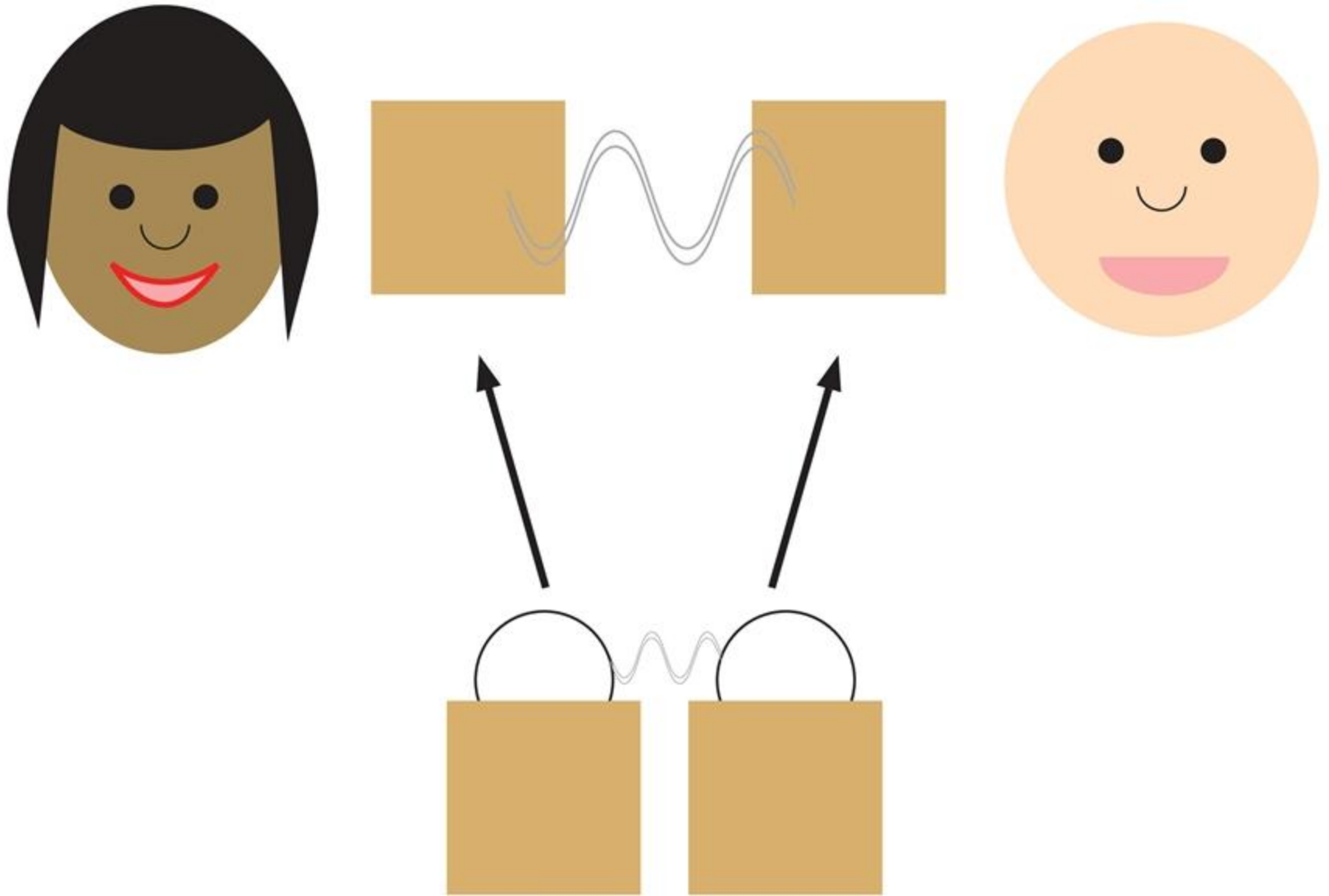
**When one particle is measured to be red,
the other will be red.**



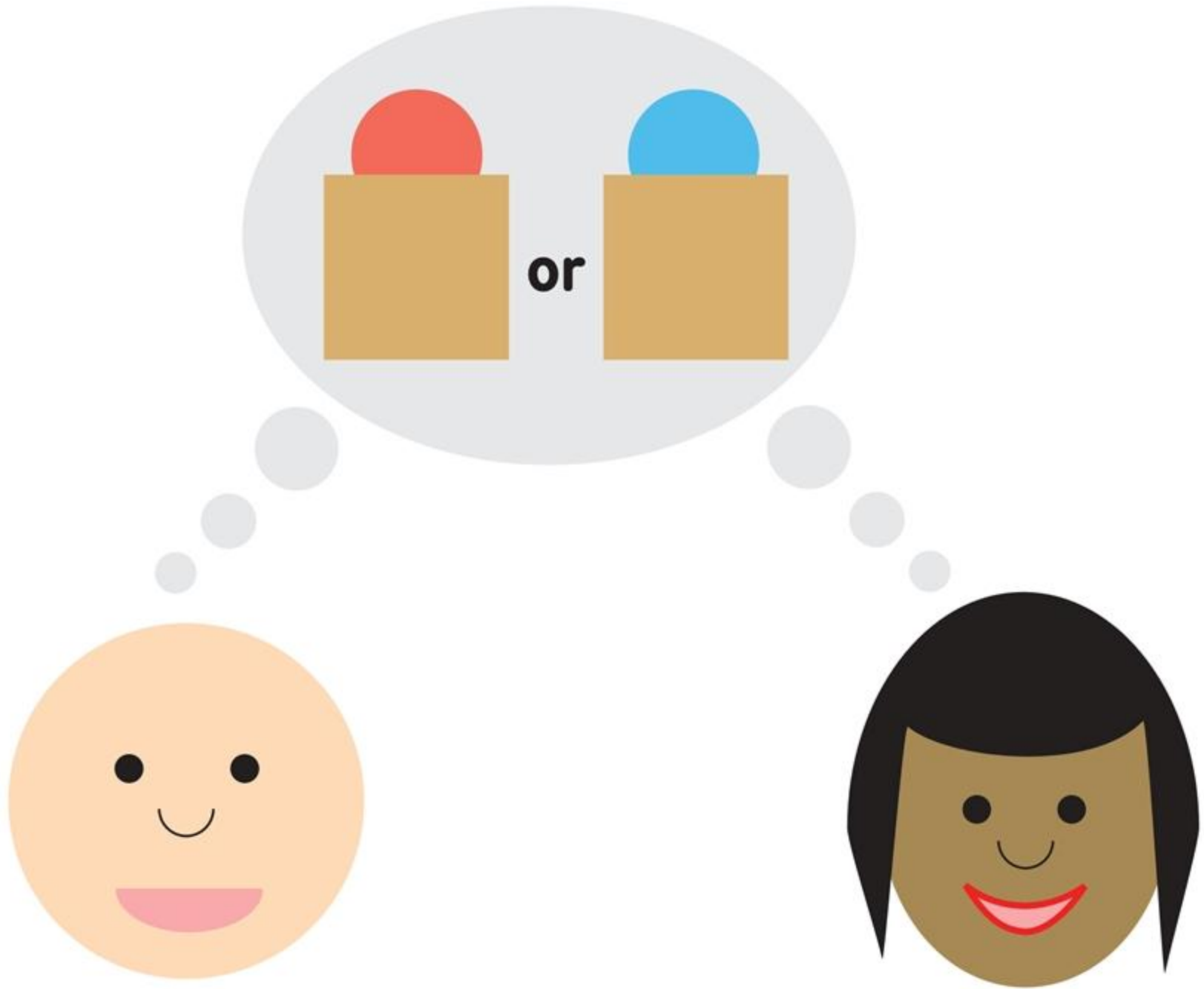
**When one particle is measured to be blue,
the other will be blue.**



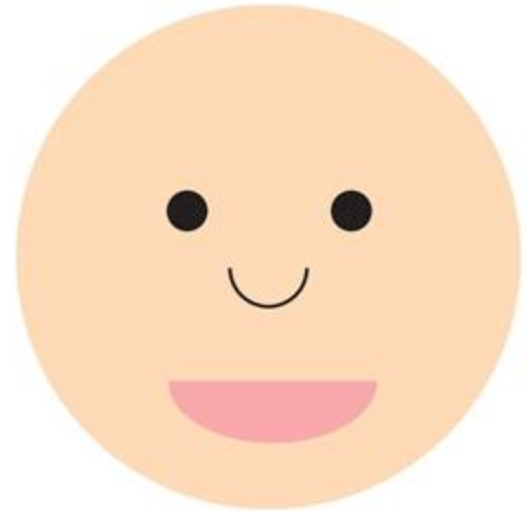
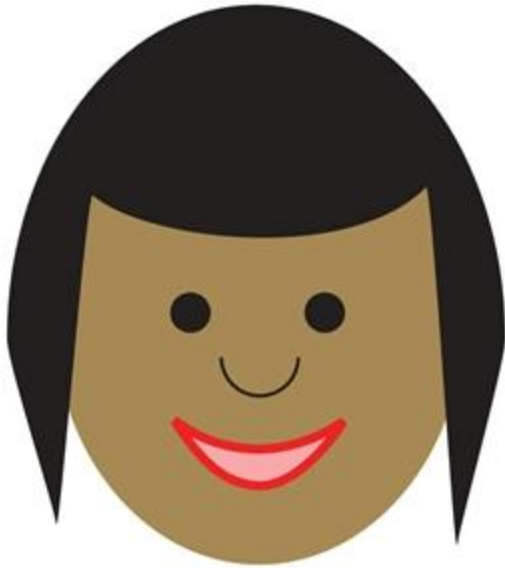
**We put two entangled particles
into two boxes.**



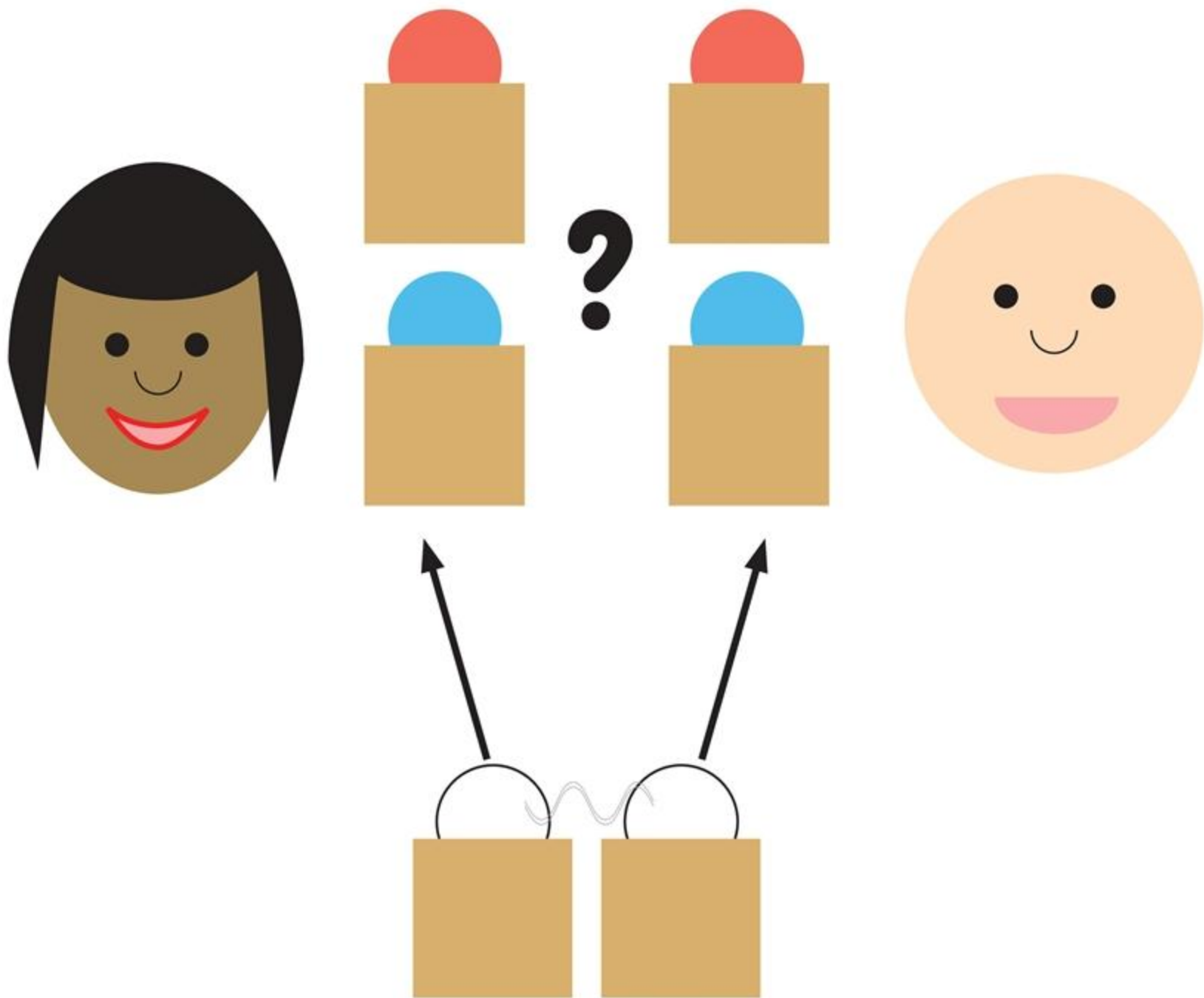
One box for Alice. And one box for Bob.



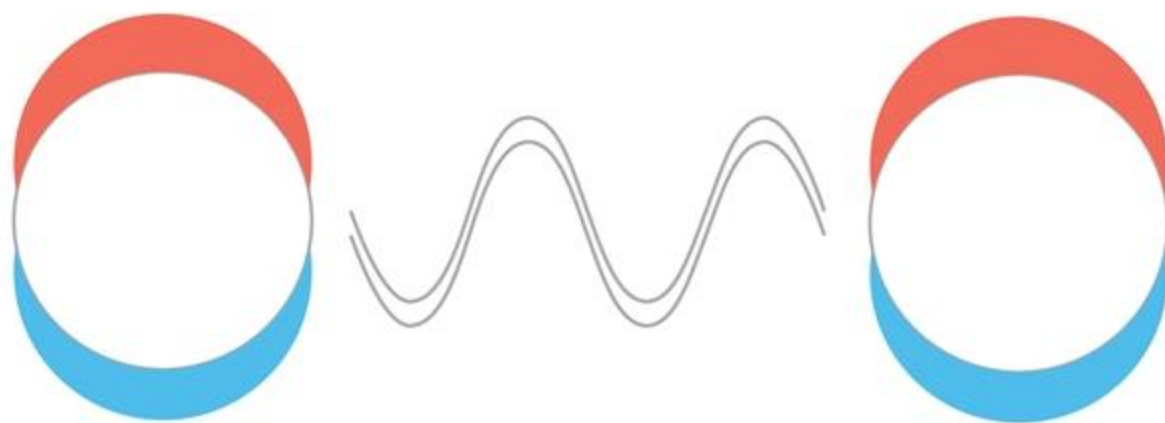
**Alice and Bob do not know
what color they will find.**



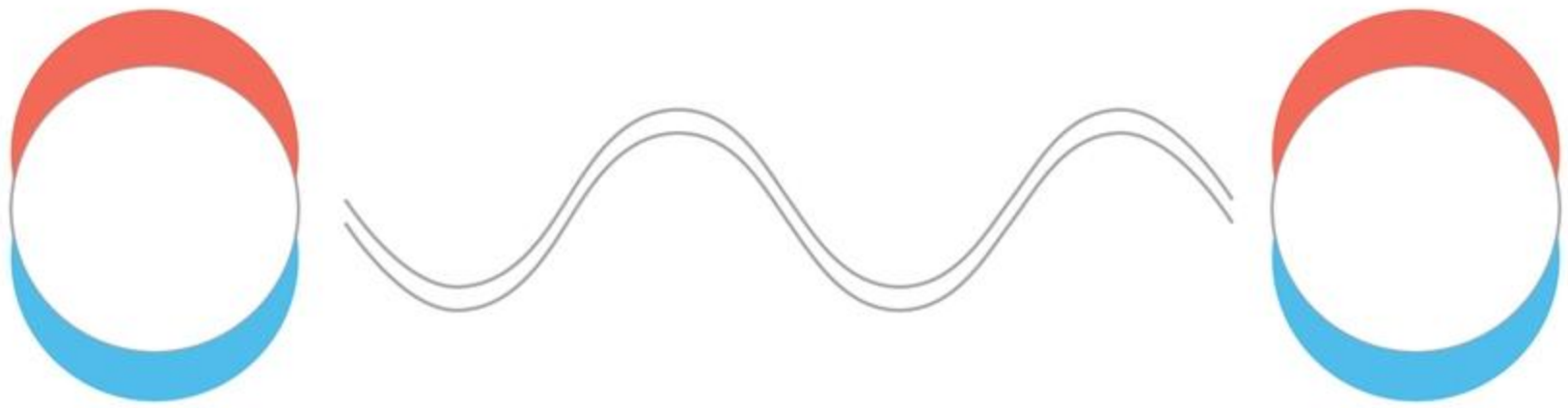
**They always have the same color
when they open their boxes!**



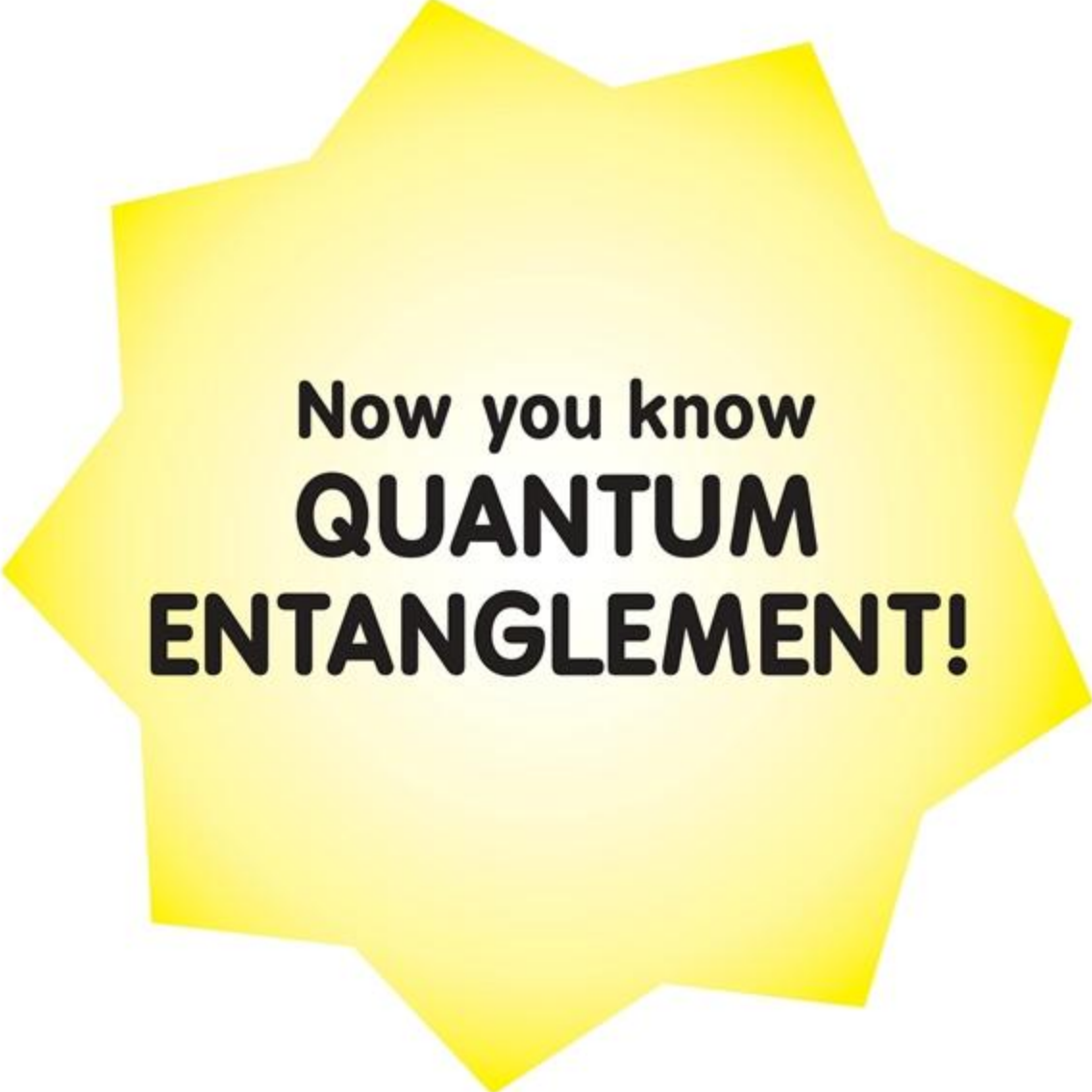
But this time we do not know what color they will find either. In fact, no one knows!



It is as if the particles decide what color they will be the moment they are measured.



This is true no matter how far apart they are. And nobody knows why.



Now you know
**QUANTUM
ENTANGLEMENT!**

Simple explanations of complex ideas FOR YOUR FUTURE GENIUS!



*It only takes
a small spark to
ignite a child's mind.*

Chris Ferrie is a physicist, mathematician, and father of four budding young scientists. He believes it is never too early to introduce small children to big ideas!

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