Name: _____ Date: _____

Why You Cannot Tickle Yourself

Circle group

Try this. Rub your own arm with your fingers. It feels fine. Now ask a friend to do it. It feels very different. You might even giggle. Why can't you tickle yourself?

The answer is in your brain. When you plan to move, your brain tells your muscles what to do. It also makes a guess about how the move will feel. When you touch your own arm, the guess is right. Your brain sees nothing new. So it turns the feeling down.

A friend's touch is a surprise. Your brain does not know when or where it will come. Surprises get your full attention.

This is a useful trick. Your brain does not need to notice every touch you make, like your hand on a pencil. That saves attention for new things, like a bug landing on your neck.

Questions

1. What happens when a friend rubs your arm?

_____

_____

2. What does your brain tell your muscles when you plan to move?

_____

_____

3. What does your brain guess before you touch your own arm?

_____

_____

4. Why does a friend's touch get your full attention?

_____

_____

5. What is one touch you make yourself that your brain can skip?

_____

_____

6. Why is it good that your brain turns down your own touches?

_____

_____

Words to know

muscles: the parts of your body that pull and make you move
guess: an idea about what will happen before it does
surprise: something you did not expect
attention: careful notice that your mind gives to something

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Why You Cannot Tickle Yourself

Triangle group

Try this. Run your fingers over your own arm. It probably feels fine. Now ask a friend to do the same thing. Many people say it feels very different, and sometimes it makes them giggle. Why can't you tickle yourself?

The answer is in your brain. When you plan to move, your brain sends a message to your muscles. It also makes a quick guess about how the movement will feel. When you touch your own arm, the guess matches the real feeling almost exactly. Your brain decides there is nothing new to notice, so it turns the signal down.

A friend's touch is different. Your brain cannot know exactly when or where it will happen. The feeling is a surprise, and surprises get your full attention.

Scientists think this skill is useful. Your brain does not need to pay attention to every little touch you cause yourself, like your clothes moving or your hand holding a pencil. That leaves more attention for things that are new, like a bug landing on your neck.

Questions

1. What happens when a friend runs their fingers over your arm?

_____

_____

2. What does your brain send to your muscles when you plan to move?

_____

_____

3. What quick guess does your brain make before you touch your own arm?

_____

_____

4. Why does a friend's touch get your full attention?

_____

_____

5. What is one touch you cause yourself that your brain does not need to notice?

_____

_____

6. Why might it help you that your brain turns down touches you make yourself?

_____

_____

Words to know

muscles: the parts of your body that pull and make you move
guess: an idea about what will happen before it does
surprise: something you did not expect
attention: careful notice that your mind gives to something

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

Why You Cannot Tickle Yourself

Square group

Try a small experiment. Slowly run your fingertips along your own forearm, and it will probably feel perfectly ordinary. Now ask a friend to repeat the same motion. Many people report that it feels strikingly different, and it may even make them giggle. Why is it impossible to tickle yourself?

The explanation lies in your brain. Whenever you decide to move, your brain sends instructions to your muscles, and at the same moment it makes a quick prediction about how the movement will feel. When you touch your own arm, the prediction matches the real sensation almost exactly. Your brain concludes that nothing unexpected is happening, so it turns down the signal.

A friend's touch is another matter. Your brain cannot know precisely when or where it will arrive, so the feeling comes as a surprise, and surprises receive your full attention.

Scientists believe this ability is valuable. Your brain does not have to notice every little touch you cause yourself, such as your clothes shifting or your hand resting on a pencil. That leaves more attention available for things that are new, like a bug landing on your neck.

Questions

1. What often happens when a friend repeats the motion on your arm?

_____

_____

2. What does your brain send to your muscles whenever you decide to move?

_____

_____

3. What prediction does your brain make before you touch your own arm?

_____

_____

4. Why does a friend's touch receive your full attention?

_____

_____

5. Which touches that you cause yourself does your brain not need to notice?

_____

_____

6. How does ignoring touches you cause yourself help you?

_____

_____

Words to know

muscles: the parts of your body that pull and make you move
surprise: something you did not expect
attention: careful notice that your mind gives to something

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: Why You Cannot Tickle Yourself

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: Why You Cannot Tickle Yourself

Easier · 140 words · Flesch-Kincaid grade 1.4

1. It feels different, and you may giggle.
2. What to do.
3. How the touch will feel.
4. It is a surprise, because your brain does not know when it will come.
5. Your hand on a pencil.
6. It saves attention for new things, like a bug on your neck.

Triangle: Why You Cannot Tickle Yourself

This passage · 174 words · Flesch-Kincaid grade 4.1

1. It feels different, and it may make you giggle.
2. A message about the movement.
3. A guess about how the touch will feel.
4. Your brain cannot know when or where it will happen, so it is a surprise.
5. Clothes moving or a hand holding a pencil.
6. It saves attention for new things that might matter, like a bug on your neck.

Square: Why You Cannot Tickle Yourself

Harder · 190 words · Flesch-Kincaid grade 7.7

1. It feels very different, and it may make you giggle.
2. Instructions about the movement.
3. How the movement will feel.
4. Your brain cannot know when or where it will arrive, so it is a surprise.
5. Clothes shifting or a hand resting on a pencil.
6. It leaves more attention for new things that might matter, like a bug on your neck.