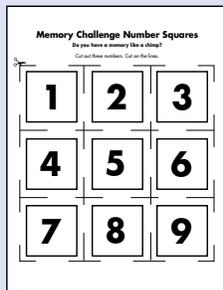


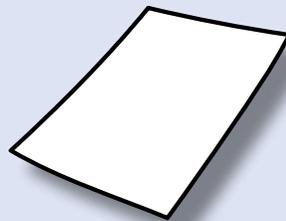
Memory Challenge

Find What You Need..

- Memory Challenge Numbers Handout
- Blank sheet of paper
- Pen or marker
- Scissors
- Timer



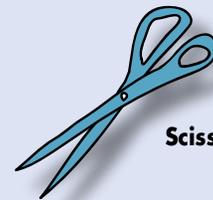
Numbers Handout



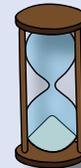
Paper



Pen or marker



Scissors



Timer

Is your short-term memory as good as a chimp's?

When Ayumu, a chimpanzee, was 5 years old, he knew numbers 1 to 9, in order, and could point to the numbers on a computer monitor. Then Ayumu's trainer decided to test his short-term memory. Short-term memory is when you remember the things that just happened.

To show off his short-term memory skills, Ayumu's trainer had Ayumu look at a computer screen with the numbers 1 through 9 out of order all around the screen. When Ayumu touched the number 1, all the numbers were instantly covered up so he could no longer see them. In fact, the chimp had only about half a second to see the numbers. He was still able to touch all the numbers in the

right order, starting with the number 1 and going all the way to the number 9 without making a mistake. His trainer says that he can get this experiment right 80 per cent of the time, or 8 times out of 10.

Animal Fact:

Parrots and sea lions
are also able to recognize letter
and number symbols.

Activity Instructions

1. Now you try it. Take out the Memory Challenge Number Squares handout and your scissors. Cut out each number. Cut carefully using the lines to guide you so the number squares will be the same size.
2. On another sheet of paper cut out 9 squares about the same size as your number squares.
3. Try this experiment with a friend. Have your friend spread out the number squares facing up, out of order. Don't look at the number squares.
4. Take a quick look at all the numbers. In the first round have your friend count to 3 and look away. To make this even more challenging in the second round have your friend rearrange the numbers. Look at the numbers while your friend counts to 2 and then look away. In the third, and most challenging round, have your friend again rearrange the numbers and count to 1, and look away again.
5. Your friend should place the blank paper squares on top of the number squares.
6. Start with where you think the "Number 1" square is, and write "1" on the blank square which is covering up the number. Then go in order and write numbers "2" through "9" where you think they are.
7. Check your work. Go one-by-one starting with the number 1 and lift up the blank squares. Do the numbers you wrote match the numbered squares? How many of them match? Were you able to do as well as Ayumu the chimp?
8. Cut out new blank squares and let your friend have a turn.
9. Try this game online. Go to the Games section of the Kids' Science Challenge Web site and test your memory.

Conclusions

What does this experiment show? We know for sure that chimpanzees can think. These and other experiments have shown that chimps can recognize and identify symbols like numbers and letters. They know at least some of our language and can respond to our words and written symbols. Now we know that chimps also have good short-term memories. Some scientists think that when humans developed their language skills, they lost some of the memory skills that chimps still have.

Think about this! Ayumu is better at the memory experiment than his mother Ai. What do you think will happen if you try this experiment with your Mom or Dad? Try it. Maybe they don't even remember that dish you broke last week...

Brain Buster:

**A lot of animal thinking is done
to help the animal survive.**

**Chimpanzees might be good at remembering
what they see as a way to remember
where food and shelter are.**

**How else might a good short-term memory be
useful to a chimp?**

Memory Challenge Number Squares

Do you have a memory like a chimp?

Cut out these numbers. Cut on the lines.



1	2	3
4	5	6
7	8	9

