

# *Inattentional Blindness: Beat The Magician*



## **Introduction**

- Inattentional Blindness is a psychological phenomenon first named by Arien Mack and Irvin Rock in 1998.
- It is where, when focussing on a particular object or task, we do not notice obvious and unexpected things or events occurring in our field of vision.
- As humans we think we see and process everything around us, but this is not the case as there is simply too much information for our brain to process. Therefore, while we may miss things going on around us, inattentional blindness is necessary to allow us to focus our attention on tasks at hand.
- This has relevance for everyday tasks such as driving, where we focus on a particular task but may not notice other obvious things going on around us.
- It is also how magicians do some of their magic tricks, tricking the audience into focussing on one thing they are doing while secretly performing their 'magic', in front of our very eyes.
- This PDF can be used to demonstrate the phenomenon of Inattentional Blindness to children. It uses a video where the children are asked to focus on a task (following an object under moving cups), and while doing so a monkey obviously pops up in the middle of the video. However, most people do not spot this due to Inattentional Blindness. Furthermore, while the video is playing you will change a scarf, which most will also not notice.



## **Materials Required:**

- Video (<https://bit.ly/2U4yDbm>) and large screen/smartboard/projector to play the video on.
- 2 scarves
- Paper and Pencil (or whiteboards and pens), one per child.

## **Optional (depending on time):**

- Blue Paper, Gold Star Stickers, Sellotape, Holepunch, Elastic String, and Scissors to make magician hats.
- Printable Spot the difference (<https://www.myhomeschoolmath.com/differences.html>)

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### **Directions:**

1. Ensure you are wearing one of the two scarves, with the other hidden away, and introduce the topic – do you think you can beat the magician?
2. Set video to 0:10, pause, and instruct children to follow the blue item, emphasising they must follow it very closely, and not say anything while, or after, it has played.
3. While the video is playing, swap scarves secretly (for example under a desk or behind a board) where the children cannot see you.
4. Play video until 0:46, pause the video, and ask the children to write down (without showing anyone else or discussing) which cup they believe the blue item is under, and if they noticed anything else happen in the video. This could be adapted for children unable to write yet by, for example, drawing a picture of what they saw, or simply putting their hand up if they saw anything else.
5. Tell them something strange happened in the video, and it will now be played again but this time they need to focus on the background.
6. Play the video once again from 0:10 seconds until they spot the monkey and the location of the blue item is revealed.
7. Ask the children, 'did you beat the magician?', and ask them to reveal what they had written after watching the video the first time. Those who spotted the monkey the first time have beaten the magician! They can also see if they guessed the location of the blue item correctly.
8. Then ask, 'but did you notice anything change about me?', and see if any children noticed the change in scarf.
9. Explain that this is called Inattentional Blindness which is where, when we are focussing on a particular task, we may not notice other obvious things going on around us. It is completely normal and occurs because our brains have so much information coming in from our eyes that we cannot process it all. This is also sometimes how magicians work – they distract you with what you think you should be focussing on whereas in reality they are performing the trick right before your very eyes.
10. Do the spot the difference, or make the magicians hats (instructions below), if desired.

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### **Magician's Hat Instructions:**

1. Draw a large circle on the blue paper (this could be done free-hand, by tracing around a large circular object, or by using a compass drawing tool), and cut out.
2. Mark the middle of the circle with a pencil and cut one straight line from the edge of the circle to the middle point.
3. Using this slit, make the paper into the desired cone shape, and secure with Sellotape.
4. Using the hole-punch, punch two single holes at opposite ends of the opening of the cone.
5. Cut a piece of elastic string to size, and tie each end through one of the punched holes (this will hold the hat in place).
6. Decorate hat with golden star stickers.



### **References:**

- Brane, A. (2012). Change Blindness – Attention Test. Retrieved from: <https://bit.ly/2U4yDbm>
- Hiclipart (n.d.). The Wizard Glinda Magician. Retrieved from: <https://www.hiclipart.com/free-transparent-background-png-clipart-daymr/download>
- Jensen, M. S., Yao, R., Street, W. N., Simons, D. J. (2011). Change blindness and inattentional blindness. *WIREs Cognitive Science*, 2, 529-546. doi: 10.1002/wcs.130
- Mack, A., & Rock, I. (1998). *Inattentional Blindness*. Cambridge, MA: MIT Press.
- Mack, A. (2003). Inattentional Blindness: Looking Without Seeing. *Current Directions in Psychological Science*, 12(5), 180-184.
- Myhomeschoolmath. (n.d.). Find the differences. Retrieved from: <https://www.myhomeschoolmath.com/differences.html>
- Simons, D. J., & Chabris, C. F. (1999). Gorillas in our midst: sustained inattentional blindness for dynamic events. *Perception*, 28(9), 1059-1074. doi: 10.1068/p281059