

## **Bradford Visual Function Box**

#### Instruction leaflet

The purpose of the Bradford Visual Function Box is to establish a person's functional binocular visual performance, particularly those who are not able to respond to other traditional visual assessment tools.

It can help supporters, carers or teachers understand the size of object an individual is able to respond to, at what distance and in which part of their vision they find it easiest to respond.

The key to success is observation and allowing time for the person to show you what they can see by eye movement, head movement, facial expression, physical gesture, stopping other sensory stimulation or simply pupil constriction.





#### What's in the box?



8mm bead

11mm bead with ridges

20mm shaped bead

24mm bauble

32mm shaped bead

50mm animal toy

70mm spiky ball

3x baby shapes books

1x light spinner

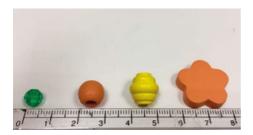
Craft wire

Please note: colours and shapes may vary

**Disclaimer:** We are unable to offer replacement beads or other contents. We suggest sourcing replacement contents online. Please email us at eyecare@seeability.org if you have any questions.

# Assembling your Bradford Visual Function Box

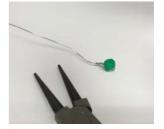
The box contains target beads as below (colours and shapes may vary).









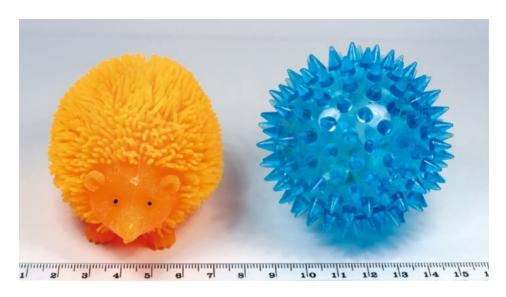


Using the pliers provided, loop the wire through the hole in the bead, and secure well by winding the wire round itself several times. Make sure the wire lies flush and does not stick out. For beads with a design, loop the wire over the patterned side so you can show the plain side to the person whose eyesight you're testing.





Larger items (animal toy, spiky ball, light spinner, baby shapes books) do not require a wire. Batteries are provided for the light spinner. Other items have built in batteries. If you need any replacement parts, please get in touch with us at <a href="mailto:eyecare@seeability.org">eyecare@seeability.org</a>, and we can recommend where to buy them.





### **Getting started**

Try to gauge the person's vision before assessment by taking note of the person's visual ability while entering the room.

- Do they give eye contact?
- Do they appear visually alert? Are they looking around appropriately? Are there roving eye movements or nystagmus?
- Do they smile back at you?
- Do they require glasses? If so, these should be worn for the assessment.

Ensure the background setting is evenly coloured, to avoid distraction from patterns on clothing or walls. Start with the room's light on. The visual targets can be presented in any order, but a ladder approach can be effective. Typically targets are presented at 33cm. The exact distance is not critical but should be recorded so repeat measurements can be compared.

Start with a size appropriate toy (allowing for maximum concentration).

Hold the toy so the tester's hand is out of the line of sight. If presenting a small bead, hold the opposite end of the wire, ensuring the tester's hand is out of the line of sight.

If the person seems visually alert (e.g. making eye contact, looking round the room) start with a small target (8mm). If they appear to have limited vision, start with a larger target (70mm or flashing light).

Introduce the target into the area of central vision, 33cm in front of the eyes.



The result is based on observing the movement of the eyes when the target is presented. Slowly move the target a few centimetres to the right, then back through the area of central vision, then to the left.

Observe the position of the eyes if they are fixing on the target.

- Are the eyes straight and are they are using central vision?
- Do they have a change in ocular alignment (e.g. momentary improvement in exotropia or slowing of nystagmus)?
- Do they attempt to move their head towards the target? Do they appear to be looking to the side using peripheral vision?
- Do they respond by stopping any other sensory stimulation (e.g. hand chewing, teeth grinding, rocking)?
- Do they reach and grab for the object?



Allow time for the person to fix and follow the target and observe the eyes. 'Wait for 8' - It can take up to 8 seconds to observe any movement.



According to the result, either increase or decrease the size of the target and observe again.

When you have reached the point of threshold of vision, record the smallest sized target seen and the distance in your clinical notes. Feedback to supporters or carers to help them understand what size objects (e.g. toys, food or picture cards) the person can functionally access in their daily activities.



It is also good to record the following:

- Speed of fixation is it rapid or slow?
- Ease of fixation do they use smooth pursuits, microsaccades or head thrusts?
- Areas of inattentive or preferred visual field – does the person find it easier to see objects on one side rather than the other?

The Bradford Visual Function box was designed and created by Prof. Rachel Pilling and Caroline Rawse. Produced under licence from the Bradford Teaching Hospitals NHS Foundation Trust.

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