Julie Cartledge
Visual Acuity Testing in Children
The principles are the same.

- Should be attempted at **every visit**.
- This should be recorded at every visit (even if not obtained).
- Best corrected vision should be tested.
- Should be tested uni-ocularly.
The **actual** assessment is different.

- Factors to consider:
  - Age.
  - Ability.
  - Co-operation.
Objective Vision Tests.

- Assessment of Fixation.
- Fixing and Following.
- Objection to occlusion.
- $10^\circ$ Vertical Prism test.
- FCPL / Cardiff cards.
Basic Assessment of Fixation

- Hold a pen torch at 33cm at eye level.
- Look at the corneal reflections.
- Presence of an obvious squint. (strabismus)
- Move torch into positions of gaze, watching the corneal reflections.
Assessment of Fixation.

**Central** and **symmetrical**: reflections indicate good ocular alignment and no evidence of a manifest squint.

**Asymmetrical**: Patients left eye is convergent (turning in) and the corneal reflection is **temporal** as opposed to central.
Objection to occlusion.

- Cover one eye with an occluder.
- What is the child’s reaction?
- Cover the other eye in the same way.
- What is the child’s reaction?
10\(^\circ\) Vertical Prism Test

- Tested on a child with “straight eyes”.
- Used to assess for a preference in fixation.
- 10\(^\circ\) vertical prism induces vertical diplopia, and if both eyes have an equal acuity then a alternating vertical movement of the eyes will be seen.
Guideline for Age Related Vision Tests

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Subjective Vision Assessment

- When a child starts talking, you can get them to do either a picture based test, or a letter based test once they know their letters.
- Ask their parents, or use a matching card to check, and also use if the child is shy or are unsure of the letter/picture name.
- Always aim for the hardest test the child can manage.
Subjective Vision Tests

• Cardiff Cards.
• 3m or 6m Kay Pictures (Single/Crowded)
• 3m or 6m LogMAR.
• 6m Snellen or logMAR Chart.
Cardiff Cards 1-2 years

- Designed for the age group who no longer respond well to gratings but still too young to name pictures.
- Tested at eye level at 50 cms or 1m.
- Tested uni-ocularly.
Kay Picture Tests

- Kay pictures – Single or Crowded:
  - Single Kay pictures are used on younger children where attention and co-operation is sometimes limited.
  - Crowded visual acuities (Linear testing) should be tested as soon as possible.
How to Test Kay Pictures

• Go through the pictures first with the child on the matching card – ask what they think each picture is. Repeat what they say.
• Test at correct distance (3m or 6m)
• Uniocular measurements.
How to Test Kay Pictures

- As with adults – start big, and get smaller.
- BUT...You don’t need to do every picture on every line – they will get bored!
- Lots of encouragement is required.
- Lots of persistence is required.
Sonksen LogMar test

- Tested at 3 metres.
- 4 letters per line for crowded test.
- Child can name or match letters.
Snellen /logMAR Acuity

- Children may say the phonetic sound.
- Children will require more patience and encouragement.
- On average, it can take twice as long for a child to complete a Snellen acuity compared to adults.