Cranial Nerve Lab

Please bring a tiny amount of ONE of the following:
(none of this is to eat)

- Soap
- Cloves
- Vanilla
- Cinnamon
- Coffee
- Or another familiar, nonirritating odor

By the end of the lab, students will
1. practice non-invasive tests of the cranial nerves.
2. Realize that we can assess cranial nerve function by observation
3. practice the power of observation
4. practice objective reporting
Cranial Nerve 1 (name)__________________________________________

a. Make sure both your partner’s nasal passages are open by pressing each nostril and asking her to sniff through the other.
b. Ask her to close both eyes and occlude one nostril.
c. Present familiar, nonirritating odors and ask if she smells anything. If so, what. Test both sides.
d. Observations
   Test item  partner response
   i. __________________-   _____________________
   ii. __________________-   _____________________
   iii. __________________-   _____________________
   iv. __________________-   _____________________

Cranial Nerve II (name)________________________________________

a. Test your partner’s visual acuity using the chart in the hall.
b. Screen the visual fields by confrontation. Ask him to look directly into your eyes. Place your hands about 2 feet apart lateral to his ears and ask him to point to your fingers as soon as he sees them. Wiggle your fingers and slowly move both hands inward toward his line of gaze until he identifies them. Repeat in the upper and lower temporal quadrants.
   i. Findings:
      1. acuity
      2. Fingers approaching
Cranial Nerve II and Cranial Nerve III (names)
_________________________________________
_________________________________________

a. Inspect the size and shape of your patient’s pupils and compare them. Findings:
b. To test the papillary reactions to light, have your patient look at a distant object with a steady gaze. Shine a bright light obliquely (WHAT DOES OBLIQUELY MEAN?) into the left pupil and observe it for constriction.
   a. Finding
c. Repeat the shining of the light into the left eye and watch the RIGHT eye
   a. Finding
d. Shine the light obliquely into the right eye and observe for constriction.
   a. Finding
e. Repeat the shining of light into the right eye and watch the LEFT eye.
   a. Finding
Cranial Nerves III, IV, VI (names)

a. Test extraocular movements in the six primary directions of gaze, and observe both eyes as they move. Record the direction of movement using an arrow. Findings

   a. 
   b. 
   c. 
   d. 
   e. 
   f. 

b. Check convergence of the eyes. Record findings.
   a.
Cranial Nerve V (name)

a. Motor portion. Palpate the temporal and masseter muscles. While your hands are on the muscle, ask your partner to clench their teeth. Note the strength of the muscle contraction.
   a. Finding, remember to comment on both sides

b. Sensory portion. Explain that you are going to test pain sensation on each side of the face.

c. Ask your partner to close their eyes. Use a clean sharp object provided and a dull object provided.

d. Apply the sharp object to both sides of the face (circles on diagram are suggested areas),

e. Occasionally substitute the blunt object and ask your partner to report “sharp” or “dull” each time.

f. Compare sides
   Right                      Left

   Forehead  1.              1.
   Cheek     2.               2.
   Chin      3.               3.

   g. Test for Light Touch using a fine wisp of cotton. Ask the partner to respond whenever you touch the skin.
Cranial Nerves VII (names)

- a. Inspect your partner’s face at rest
- b. during conversation

Note any asymmetry, other facial movements.

- c. observe any weakness or asymmetry while:
  1. raise both eyebrows
  2. frown
  3. tightly close both eye so he can’t open them. Test strength by trying to open them, as shown
  4. show both upper and lower teeth
  5. smile
  6. puff out both cheeks

Cranial Nerve VIII (name)

- b. assess auditory acuity in each ear.
- c. Have partner occlude one ear with finger.
- d. Stand 1-2 feet away and softly whisper toward unoccluded ear.
- e. Choose words with two equally accented syllable, such as “baseball”.
- f. Make sure he can not read your lips.
- g. If necessary, gradually increase the intensity of your voice until he can hear it.

R____________   L_______________
Cranial Nerve IX, X (names: _________________  _________________)
   a. listen to your partner’s voice
      a. hoarse?
      b. nasal quality?
      c. Difficulty swallowing?
   b. Ask him to say “ah” or to yawn, watch movements of soft palate and pharynx.
      a. Soft palate rises symmetrically?
      b. Uvula remains at midline?
      c. Each side of posterior pharynx moves medially like a curtain

Cranial Nerve XI (name_______________________________________)
   a. from behind your partner
      a. look at the trapezius muscles
      b. compare one side with the other
   b. ask him to shrug both shoulder upward against your hands.
      a. Note strength
      b. Note contraction of trapezius
   c. ask your partner to turn her head to each side against your hand.
      a. Observe contraction of the opposite sternocleidomastoid
      b. Note force of the movement against your hand
Cranial Nerve XII (name_______________________________)
   a. Listen to your patient’s word articulation (uses CN V, VII, X, with XII)
   b. Inspect her tongue as it lies on the floor of the mouth
   c. Have your partner stick our their tongue
      a. Look for asymmetry
      b. Look for deviation from midline
   d. Move tongue side to side
      a. Note symmetry of movement