

# **The Color Beam Book**

**For use with the  
Variable Beam Flashlight Kit**



AMERICAN PRINTING HOUSE  
FOR THE BLIND, INC.

Louisville, KY

Large Print Catalog Number 7-08390-00  
used in 1-08390-02 Variable Beam Flashlight Kit

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AMERICAN PRINTING HOUSE  
FOR THE BLIND, INC.

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In keeping with our philosophy to provide access to information for people who are blind or visually impaired, the American Printing House for the Blind provides a CD containing html, brf, txt, and pdf versions of this book.

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# Preface

The American Printing House for the Blind (APH) provides a flashlight and a variety of colored lenses as a component of the Sensory Learning Kit (SLK), Catalog #7-08611-00.

Results of a survey (2002) conducted by APH showed that the flashlight with colored lenses was the most valuable item contained in the Sensory Stimulation Kit (now the SLK).

Many professionals in the vision field have need of additional flashlights and lenses when working in group settings or when needing to leave a flashlight with a family member to continue intervention between professional

visits. For this reason APH sells the Variable Beam Flashlight Kit.

Through a product specific survey (2003) on the flashlight, vision

professionals said they preferred having a single flashlight capable of silently changing from a wide beam to a narrow beam, as opposed to having two different flashlights. Although most



responded that they use the transparent colored lenses most, they still felt that there was a need for the translucent colored lenses. Red and yellow continue to be the preferred lenses, however, all original colors are



used and the respondents requested that APH add purple, orange, and pink lenses.

Respondents use the wide beam primarily for tracking, followed in use by illumination, functional vision assessments/evaluations, and games. The narrow beam is used most for functional vision assessments/evaluations and tracking.

*The Color Beam Book* was compiled from the original materials created by APH for the Penlight/Flashlight Kit (1978), the Sensory Stimulation Kit (1978) and the Sensory Learning Kit (2005). The basic routines included in *The Color Beam Book* were designed and written by Millie Smith, and originally published in the *SLK Routines Book*. The new book was edited by APH staff, and Millie Smith reviewed the final manuscript.

# CHAPTER 1: Introduction

The Variable Beam Flashlight Kit is designed to help learners develop visual awareness and tracking skills. It can be used with a wide range of learners. Following the audience guidelines in the Sensory Learning Kit (SLK), the Variable Beam Flashlight Kit can be used with learners 0-2 years cognitive level. For these learners use the routine templates in chapters 2-4 and pay close attention to response actions and time delays. Additional activities and games are included (chapter 5) for learners at the 3-6 years cognitive level. The range of instruction is endless.

The kit contains:

- Two MagLites® with lens holders/anti roll devices
- Eight translucent and seven transparent color lenses
- *The Color Beam Book*



*The Color Beam Book* suggests activities to be implemented using the instructional strategy called "routines." All written routines in this book are to be used as templates. Each should be modified to reflect the unique needs of individual learners. All routines are social interactions. They are always carried out with learners



and partners. Partners may be teachers, family members, friends, or caregivers.

## **Intervention Levels**

The routines are organized into three intervention levels as identified in the SLK: quiet alert level, active alert level, and partial participation level (Smith, 2005). Expansion activities and games are included. All activities are to be used as guidelines in designing routines; presenting the items sequentially and appropriately for the functional level of the learner. Begin the activities on a level at which the learner can perform comfortably.

Each level is designed to build upon the interaction abilities present at the preceding level. Levels can be determined by using the SLK assessment tools (APH Catalog #7-08611-00).

## **Routines**

Routines should begin and end consistently. The first step is the transition step. An object cue (the flashlight) is used to tell the learner what is going to happen next. A change in location or position is often associated with this step.

The last step is the finished step. The object cue is removed to communicate to the learner that the activity is finished.



## **Quiet Alert Routines**

- Help the learner establish and maintain alertness.
- Help the learner establish a positive relationship with partners who respond to her expressions of pleasure and displeasure.

## **Active Alert Routines**

- Help the learner develop intentional behaviors as he attempts to interact with media and partners.
- Help the learner anticipate a predictable event associated with a specific object.
- Help the learner expand his repertoire of interactions by encouraging imitation of actions initiated by the partner.

## **Partial Participation Routines**

- Help the learner anticipate the next step in a sequence of steps leading to a meaningful outcome.
- Help the learner take responsibility for doing everything she can do in each step.
- Help the learner use people and devices as aids for completing parts of steps beyond her abilities.

Skills in the areas of communication, cognition, and motor functioning are highly related to quality of life. Routines give learners opportunities to acquire and maintain these skills in appropriate contexts throughout their lives (Smith, 2005).



## Notes to Partner

- Read the routine completely before beginning.
- Read the listed cautions before beginning any routine.
- The flashlight batteries will last longer if removed and stored outside the flashlight case.

### CAUTIONS

- A blinking light may trigger a seizure.
- Do not shine the light directly into the learner's eye.
- Small parts warning; use color lenses with adult supervision and store them properly. Color lenses could be swallowed.

If needed, turn off overhead lights and maintain body contact with a

learner who is frightened in dim lighting.

## Goals

Goals should be created as an integral part of a learner's Independent Educational Program (IEP) or Family Service Plan (FSP). Goals should be written uniquely for each learner, focusing on specific needs.

### Sample Goals

#### Quiet Alert Level

The learner will demonstrate awareness of the beam of light by turning toward it.

#### Active Alert Level

The learner will intentionally interact with the light source by reaching for the flashlight.



## **Partial Participation Level**

The learner will meaningfully manipulate the flashlight and color lenses in partial to self-selected and designated activities.

## **Responses**

Learners at each level have unique responses to the interactions provided for them. Responses could include blinking, staring, decreased or increased movement, or visual attention. More advanced learners may verbally respond.

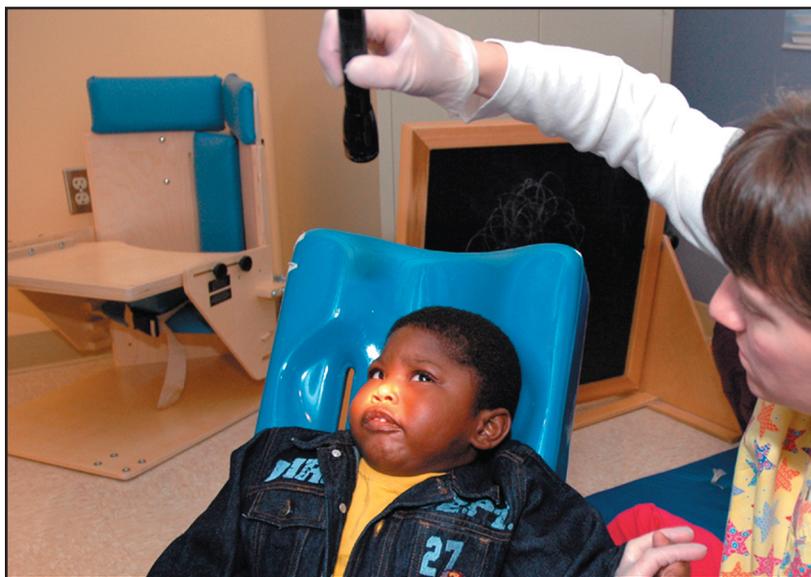
Learners who are significantly involved may respond by

- changes in breathing patterns
- changes in muscle tone

- changes in skin tone (flushing or paling)
- changes in movement patterns (quieting or accelerating)
- changes in facial expression (widening or closing of eyes or mouth)
- vocalizing
- blinking
- tongue sucking
- smiling
- crying
- laughing
- turning toward stimulus



## CHAPTER 2: Quiet Alert Level



*The light may be aimed at learner's nose or...*



*aimed at another surface visible to the learner.*

# Quiet Alert Level

## Basic Routine

### 1. Learner Steps:

Look at and feel the flashlight provided by the partner.

**Procedure:** Partner greets learner and uses hand-under-hand method to facilitate learner's experience of flashlight in best sensory channels.

**Strategy:** Flashlight becomes object cue used to tell learner that activity is about to begin. Partner is careful to present the flashlight in an appropriate manner to minimize startle or avoidant reaction.

---

### 2. Learner Steps:

Go to activity area.

**Procedure:** Partner transitions learner to specific area where activity is to take place.

**Strategy:** Give learner time to orient to new location.

**3. Learner Steps:**

Get in best position for activity.

**Procedure:** Partner positions learner using techniques and strategies prescribed and modeled by physical therapists and occupational therapists.

**Strategy:** Ensure access to best sensory and motor abilities.

---

**4. Learner Steps:**

Look at and feel the flashlight with partner again.

**Procedure:** See #1.

**Strategy:** Cue learner that activity is beginning.

---

**5. Learner Steps:**

Orient to flashlight presented by partner.

**Procedure:** Partner presents flashlight in best visual field and at optimum distance. The light may be aimed at the learner's hairline or nose, or the light may be aimed at another surface visible to the learner. Dim ambient lighting if necessary.

**Strategy:** It is recommended to use information from the assessment tools in APH's Sensory Learning Kit to determine optimum range and position.

**6. Learner Steps:**  
Maintain orientation to flashlight.

**Procedure:** Partner continues presentation until orientation is lost, then pauses.

**Strategy:** Wait for learner to notice absence of light.

---

**7. Learner Steps:**  
Reorient to flashlight.

**Procedure:** Partner reintroduces the flashlight in a variety of visual fields: right, left, central, upper, and lower, and in the following ranges: near (less than 16 inches), mid (between 16 inches and 3 feet), and distance (3 feet and beyond).

**Strategy:** Extend duration and variety of learner's responses.

---

**8. Learner Steps:**  
Reorient to flashlight with color lenses.

**Procedure:** Partner reintroduces the flashlight as described above with different color lenses.

**Strategy:** Extend duration and variety of learner's responses.

**9. Learner Steps:**  
Maintain orientation to the flashlight as it moves.

**Procedure:** Partner moves flashlight left to right, right to left, up and down, and diagonally.

**Strategy:** Extend duration and variety of learner's responses.

---

**10. Learner Steps:**  
Put the flashlight away.

**Procedure:** Partner helps learner put the flashlight away.

**Strategy:** Removal of flashlight cues learner that activity is finished.

Steps may be repeated using a wider or narrower beam of light.

### **Expansion Activities**

1. Turn the light on and off. Observe if the learner has a consistent response to the presence and absence of light.

2. Move the beam of light slowly in front of the learner's face. Watch for the learner to follow the moving beam of light with his eyes or by moving his head.

3. Shine the beam in various directions (side to side, up and down, diagonally, circularly) on a table or wall for the learner to follow with his eyes.

4. Attach various color lenses to the flashlight and move the beam of light in different directions on a table or wall for the learner to track with his eyes. The translucent color lenses tend to

be better for tracking or following as they diffuse light less than the transparent color caps. Note the preference of the learner.

5. Turn the flashlight on and hold 12-16 inches from the learner's eyes, directly in front of the learner. Move the flashlight slowly to the left and to the right of the learner's face. If the learner does not respond to the light after 30 seconds, turn it off and provide a short rest period before resuming the activity.

6. Vary the distances of shining the light from the learner's eyes. Increase the distance until the light appears to be out of the learner's visual field.

7. Place a colored lens on the flashlight. Shine the colored beam within the learner's field of

vision and watch for the learner to exhibit an observable response.

8. Repeat previous activity using a variety of colored lenses. For learners with cortical visual impairment, watch for a color preference.

9. Continue to shine the flashlight within the learner's field of vision until the learner demonstrates an awareness of the light at varying distances and of different colors.

10. Make sudden changes in the location of the light beam while the learner is tracking it (i.e., light is traveling down the wall, suddenly shuts off and reappears on the ceiling). Allow the learner time to relocate the light, then continue moving the light on its path.

## CHAPTER 3: Active Alert Level



*Using anticipation containers and calendar boxes helps teach the learner what is about to happen next.*

# Active Alert Level

## Basic Routine

**1. Learner Steps:**  
Take flashlight from anticipation container.

**Procedure:** Partner presents familiar container with flashlight and uses hand-under-hand technique to facilitate experience of flashlight in best sensory channels.

**Strategy:** Container and flashlight (object cue) tell the learner that the activity is about to begin.

---

**2. Learner Steps:**  
Go to the appropriate area.

**Procedure:** Partner transitions learner to specific area where activity is to take place.

**Strategy:** Give learner time to orient to new location.

---

**3. Learner Steps:**  
Get in best position for activity.

**Procedure:** Partner positions learner using techniques and strategies prescribed and modeled by PTs and OTs.

**Strategy:** Ensure access to best sensory and motor abilities.

**4. Learner Steps:**  
Explore flashlight.

**Procedure:** Partner presents flashlight, watches for any response that might indicate a desire to interact with flashlight.

**Strategy:** Partner facilitates exploration by helping the learner follow through on any form of self-initiated exploration.

---

**5. Learner Steps:**  
Manipulate flashlight, partner, or own body to try to interact with flashlight.

**Procedure:** Partner responds to attempts by helping learner look at, and manipulate the flashlight. Learner may enjoy shining light in various objects or surfaces.

**Strategy:** Vary response so that learner experiences maximum independent activity level without frustration.

---

**6. Learner Steps:**  
Imitate action on flashlight modeled by partner.

**Procedure:** Partner may wiggle flashlight, turn light on and off, shine light in mirror, etc.

**Strategy:** Watch learner's movements to determine requests for certain actions. Teach communication skills from the IEP, as appropriate.

## 7. Learner Steps:

Repeat Learner Steps 5 and 6 as appropriate.

## 8. Learner Steps:

Put flashlight in finish container.

**Procedure:** Partner helps learner put flashlight in familiar container.

**Strategy:** Container and flashlight cue learner that activity is finished.

Steps may be repeated using a wider or narrower beam of light.

## Expansion Activities

1. Turn the flashlight on and place it within the learner's visual field, but out of his reach. Encourage the learner to move towards the light source by crawling, walking, or reaching for the flashlight. If necessary, assist the learner by physically moving him in the direction of the flashlight. Turning the light on and off may help to attract the learner to the light source. (See cautions.)

2. Continue assisting the learner until he independently locates the light source placed nearby. Learners with motoric involvement may indicate that they are aware of the location of the light source by gesturing, turning, or looking in the direction of the flashlight.

3. Attach a color lens to the flashlight and shine the beam of colored light onto a table, floor, or piece of paper

while the learner watches. Change the color lens and continue shining the different colored light. Have the learner indicate which color lens that he would like to see again.

4. Increase the learner's choice of color lenses.

5. Hand the flashlight to the learner to explore. With hand-under-hand assistance (if needed), help the learner turn it on and off.

6. Shine the flashlight underneath and through a sheet, or other fabric. Move the light around to encourage a learner to explore the sheet.

7. Shine the light on the floor and have the child follow the light by walking, crawling, etc.

8. Allow the learner to select and attach a color lens to the flashlight and shine the beam of light wherever she chooses.



## CHAPTER 4: Partial Participation Level



*The learner chooses to play with the penlight during free time.*

*The learner manipulates the flashlight or signals partner to manipulate flashlight in a certain way related to activity, such as choice making.*

# Partial Participation Level

## Basic Routine

### 1. Learner Steps:

Take the flashlight symbol from the calendar.

**Procedure:** The partner facilitates the learner's transition to the calendar and obtainment of symbol(s). If flashlight is to be used as a pointer in an activity, such as "I Spy" or cooking, it should be paired with the symbol for the activity.

**Strategy:** The learner anticipates the next step in the sequence of steps leading to a meaningful outcome.

---

### 2. Learner Steps:

Go to the activity area.

**Procedure:** Partner transitions learner to specific area where activity is to take place.

**Strategy:** Give the learner time to orient to new location.

**3. Learner Steps:**

Get in the best position for the activity.

**Procedure:** The partner positions the learner using techniques and strategies prescribed and modeled by physical therapists and occupational therapists.

**Strategy:** Ensure access to best sensory and motor abilities.

---

**4. Learner Steps:**

Get the flashlight (if removed during positioning).

**Procedure:** Learner obtains flashlight or signals partner to obtain flashlight.

**Strategy:** Teach expressive communication and motor skills from the IEP, at the appropriate levels.

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**5. Learner Steps:**

Signal request for start of activity by turning on flashlight.

**Procedure:** Learner turns on flashlight or signals partner to turn on flashlight.

**Strategy:** Practice IEP skills.

**6. Learner Steps:**  
Use the flashlight in a manner appropriate for activity (e.g., point, test, etc.).

**Procedure:** Learner manipulates flashlight or signals partner to manipulate flashlight in certain way related to activity, such as choice making.

**Strategy:** Practice IEP skills.

---

**7. Learner Steps:**  
Repeat 5 and 6 as appropriate.

**Procedure:** Practice of learned skills.

**Strategy:**  
Reinforcement

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**8. Learner Steps:**  
Go to calendar.

**Procedure:** Partner helps learner with transition.

---

**9. Learner Steps:**  
Put symbol(s) in finished box.

**Procedure:** Partner facilitates learner's transition to finished box and placement of object in box.

**Strategy:** Cue learner that activity is finished.

Steps may be repeated using a wider or narrower beam of light.

## Expansion Activities

1. Use flashlight to direct visual attention to specific objects.
2. Allow learner to choose desired color from an array of colored lenses.
3. With hand-under-hand assistance, demonstrate to the capable learner how to change the color lenses.
4. If appropriate, use adaptive holders to assist the holding of the flashlight for choice making and communication boards.
5. Older learners may test assembled flashlights in vocational setting.



## CHAPTER 5: Activities and Games for Advanced Learners (3-6 year cognitive level)



1. Have the learner outline an object with the light and identify the object by name.

2. Attach a color lens to the flashlight and turn on the beam of light for the learner to watch. Turn off the light and have the learner verbalize what color was shining. Repeat using various color discs.

3. Shine the beam of light on the wall. Have a learner touch the light circle on the wall, then locate and walk to the flashlight.

4. Shine a color beam on the wall. Have learners who are wearing an article of clothing the same color stand up.



5. Shine a color beam on the wall and have a learner locate an object in the room or point to another learner's clothing which is the same color.

6. Have the learner walk around the room following the light spot and touching the objects on which the beam of light shines. Have the learner name the objects the light beam touches.



7. Using the flashlight have the learner outline an object from memory on a screen or piece of paper. Involve classmate in guessing what the outlined figure is, for example, square, circle, triangle, simple house.

8. Place colored cards and fabric swatches within reach of the learner. Attach a color lens to the flashlight and shine a wide beam of light on a table or wall surface. Have the learner select or indicate a card or piece of fabric which is the same color as the light she saw. Repeat using various color lenses.

9. Shine the light on different parts of the learner's body. Encourage the learner to touch and verbally identify the part of the body.

10. In a darkened room, have the learner(s) shine two flashlights with different color lenses onto the wall, projector screen, table, or butcher paper. Instruct the learner(s) to move the lights to the rhythms and in patterns while listening to music, or other learners playing rhythmic instruments. Learners can change color caps when they want.

11. Shine the flashlight with a color lens onto a piece of paper attached to the wall. Have the learner(s) draw around the circle of colored light using matching colored crayons or markers. Turn off the flashlight and have the learner(s) color in the circles. Talk about the difference in circle sizes (larger/smaller). A picture can be created incorporating the colored circles.



12. Have learner(s) follow verbal directions to flash the yellow light twice and then shine the red light onto the floor. Shine the pink light on the wall and instruct the learner make a moving blue circle around the pink.

13. Learners are sitting in a line. Hand the first learner the flashlight. He verbalizes a characteristic of the flashlight (long, metal, etc.) and passes it to the next learner who say another part of the description without naming the object. Pass it on down the line until no one can think of any other way to describe the object without naming it. The emphasis of the activity is on descriptive adjectives rather than guessing what the object is.

14. Shine the light on a mirror or on other reflecting surfaces. Turn the lights out in the room. Place the flashlight under or behind an object so that it can not be seen but the beam of light shows through on a wall or other surface. Have the learner locate the flashlight by following the beam of light to it.

15. In a darkened room, attach a transparent color lens to the flashlight and turn on the beam of light. Turn off the flashlight and have the learner choose a translucent lens of the same color and place it on a second flashlight. Repeat with different colors, gradually increasing the distance between you and the learner.



16. Have the learner trace letters of the alphabet or numerals on the wall with the flashlight and transparent color lenses.

17. Prepare cards showing color words. Hold up a word card and have the learner choose the color disc indicated by the card and place it on the flashlight.

18. Name or show the learner a letter. Ask him to shine a colored light on objects in the room which begin with that letter. For example, "Shine a green light on things which begin with the letter d."

19. Place a colored lens on the flashlight. Hide the lighted flashlight under, behind, or beside objects in the classroom. Have the learner find

the flashlight, name the color, and name the object.

20. Use the flashlight and color lenses in conjunction with primary level learners' literature. As colors are mentioned in the story, have the learner select a disc of that color and place it on the flashlight.

21. Play an adapted version of "Mother May I" or "Captain May I." Assign a different color to each learner playing the game. Players stand behind a starting line. You or a learner selected to play "Mother" stand opposite the players some distance away. The players must move, one at a time, as "Mother" directs. Rather than call the players' names, flash the flashlight with attached color disc. The player



assigned to that color must move forward the number of steps flashed. Long flashes may indicate big steps; brief blinks direct the learner to take short steps. Or, "Mother" may call out the type of step before flashing: scissor step, duck step, hop. Before moving, the player must ask "Mother may I?" If the learner forgets to ask, he returns to the starting line. Each learner receives an equal number of turns. The first to reach "Mother" becomes "Mother" in the next game.

22. Adapt "Red Light, Green Light" to include the flashlight and color discs. The player chosen to be "It" stands behind a goal line at one end of the play area. The remaining players stand behind a starting line marked across the opposite end. "It" places a green disc on the flashlight, flashes

the flashlight, then turns his back and counts aloud, "1-2-3-4-5-6-7-8-9-10." Players begin running toward the goal line when the green light is flashed. On the count of ten, "It" turns and flashes the red light. Any player moving his feet when the red light is flashed must return to the starting line. The first player to reach the goal line becomes "It" in the next game. If the play area is small, have the players walk, hop on one foot or jump towards the goal line.

23. Adapt a game of tag by using visual rather than verbal signals. Divide the players into two teams and assign a color to each team. In a fairly large play area, mark starting lines for both teams; the starting lines should run across the play area with approximately



6 feet between them. Twenty to thirty feet behind each starting line, create a goal line. Have both teams line up on their respective starting lines. Standing at the end of the starting lines, place a color lens on the flashlight and turn on the beam. The team assigned that color should run for their own goal line. The opposite team chases them, attempting to tag team members before they reach the goal line. Players who are tagged join the opposing team. The team which has more members at the end of the playing period is the winner.

24. Using many flashlights, create two teams of learners and assign one color to each team. Learners play tic-tac-toe on a piece of paper attached to the wall.

25. To send a message with the flashlight using the Morse Code, a short flash represents a dot (•) and a long flash represents a dash (–). The universal distress signal (SOS) is: ••• – – – •••



**A**      • -  
**B**      - • • •  
**C**      - • - •  
**D**      - • •  
**E**      •  
**F**      • • - •  
**G**      - - •  
**H**      • • • •  
**I**      • •  
**J**      • - - -  
**K**      - • -  
**L**      • - • •  
**M**      - -  
**N**      - •  
**O**      - - -  
**P**      • - - •  
**Q**      - - • -  
**R**      • - •  
**S**      • • •  
**T**      -

**U**      • • -  
**V**      • • • -  
**W**      • - -  
**X**      - • • -  
**Y**      - • - -  
**Z**      - - • •

**1**      • - - - -  
**2**      • • - - -  
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**9**      - - - - •  
**0**      - - - - -

Erase Sign • • • • • • • •

Numerals Sign    • • - • •



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