

Supplies:

Eye Patch Observation Sheet

1. Wear an eye patch in a brightly lit room or outside for about 15 or 20 minutes.

- 2. As you move into a darkened room or darker space, slowly lift up the eye patch as you go into the darkened space. You will have one eye that is dark adapted and one that will need to adjust the darkness.
- 3. Next describe orally or record on the printable what you could see as you walked into the darkened area.
- 4. Next, move the eye patch from one eye to the other. As you move from a bright area to a darkened one, switch the eye that is covered with the eye patch. The once covered eye should be able to see better in the darkness. After all it is dark-adapted.
- 5. Write down what you could see with the eye patch on.
- 6. Did you feel that it helped to move the eye patch from one eye to the other? What did you see as you moved into the darkness? Adults & kids should try this and then compare their reactions. Not every "pirate" may have focused on the same things.



## The Science

Pirates frequently had to move above and below decks, from daylight to near darkness. The eye patch could be used to prepare one eye to see in the dark, so when they would go below deck they could swap the eye patch from one eye to the other and see with the eye that has already adjusted to low light conditions. ... This would allow them to instantly see in the dark

It takes an average human eye about 25 minutes to fully adapt from bright sunlight to seeing in complete darkness—if a pirate was fighting on deck in the sunlight, then had to continue the fight under the deck where it is usually pretty dark, it could take too long for their eyes to adjust and for the pirate to be able to see.

Taken in part from jdaniel4smom.com/2017/10/pirates-wear-eye-patches-experiment.html



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74 North Main St Attleboro, Massachusetts 02703 | (508) 222-0157 attleborolibrary.org