

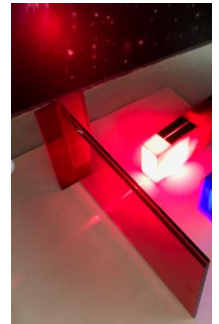
Lesson: Light Science – Shadows and Transmission  
Student Page

Materials needed:

- 1 Reflect View
- Light Blox – red and blue
- Pencil and mirror stand

Let's use what we know about selective transmission to create shadows using selectively transparent objects.

1. Remove the line cap from the front of the Light Blox.
2. Place the Reflect View about 5-10 cm from the wall/screen.
  
3. Start out by shining the red Light Blox at the Reflect View. What happens?
  
  
4. Stand your pencil vertically next to the Reflect View.  
(you can use a mirror stand)
  
5. Shine the red light at the pencil on its own. What do you see?  
Is this what you expected?



6. Move the pencil so that it stands between you and the Reflect View.
7. Shine the red Light Blox at the pencil and the Reflect View together. What do you see on the wall?



8. Now shine the blue light at the Reflect View and pencil together. What do you see?

9. Put the Reflect View away. Keep the pencil in the mirror stand.

10. Turn on one Light Blox. Shine the Light Blox at the pencil and observe the shadow. How can you make a shadow shine to your left?

How can you make the shadow bigger?

How do you make the shadow smaller?

How can you make the shadow disappear while still shining the light on the pencil?

Turn on two light blox. Experiment with shadows made from two light sources coming from different directions. What do you notice?