



Teacher's Guide for: **Lights & Paints**

Note: All activities in this document should be performed with adult supervision. Likewise, common sense and care are essential to the conduct of any and all activities, whether described in this document or otherwise. Parents or guardians should supervise children. Rock-it Science assumes no responsibility for any injuries or damages arising from any activities.

NOTE: This is the transcript of a lesson that was videotaped during an actual Rock-it Science class with real students, not actors. The students' brainstorming comments are included on the video, but are not transcribed here because they're not part of the lesson presentation.

Contents:

Quick Reference Sheets:

- Intro:page 2
- Experiment, Part 1: *Colored Paints*page 3
- Experiment, Part 2: *Colored Shadows*page 3
- Experiment, Part 3: *Colored Bricks*page 4
- Equipment List: *Lights & Paints*page 5
- Story, Part 1: *Jack & Jill and the Colored Caves*page 6
- Story, Ending.page 7

Video Transcript:

- Intro:page 8
- Story, Part 1 : *Jack & Jill and the Colored Caves*page 9
- Experiment, Part 1: *Colored Paints*page 11
- Experiment, Part 2: *Colored Shadows*page 12
- Experiment, Part 3: *Colored Bricks*page 13
- Story Endingpage 15

Title Page of Video

Lights & Paints
A Rock-it Science Lesson
Filmed October, 2009

Rock-it Science
2110 Walsh Ave, Unit F
Santa Clara, CA 95050
www.rockitscience.org

(c) 2012 Rock-it Science Educationally Useful Programs. All Rights Reserved

Intro Quick Recap: "Colored Light Waves"



- Teacher selects a student to stand on the table and asks him or her to hold onto the end of a long spring. The Teacher goes to the other end of the table and rotates the spring like a jump rope. This represents the wavelength of red light.
- To represent orange light, which has more energy than red, Teacher rotates the spring faster so that there are 2 peaks in the wave.
- Teacher rotates the spring faster to represent yellow (3 peaks) and green (4 peaks). Teacher probably can't rotate the spring fast enough to show blue (5 peaks) and violet (6 peaks).
- When you add energy together, like adding a red light to a blue light, there's more energy than before.
- If you use a red filter, you take away the red light from the blue (hold a red filter in front of a blue object), so there's less energy and it looks darker.
- Paints act like filters. If you add a bunch of different colors of paint together, what do you get? (Brown.)



Red filter over a blue jacket.

Experiment Quick Recap: "Lights & Paints"

Part 1 -- Colored Paints

- Spread paper on the table.
- Give each student 6 cotton swabs.
- Put three small globs of poster paint on the paper in front of each student: red, yellow, and blue.
- Tell students to combine the paints to make 6 colors out of three. They need to create orange, green, and purple. Give them a few minutes to mess around with the paints.
- Teacher turns out lights. What color do the paints look like now?
- Teacher shines a flashlight on the paints, walking around the table so each student can see the light on their paints and confirm that the colors look normal.
- Teacher switches to a red light and again shines it all over the paints. Do any of the colors go away?
- Teacher repeats the process with a green light, then a blue one.
- Teacher sets the flashlight to automatically cycle through the colors and shines it over the students' paints.
- Teacher turns on overhead lights and shows students a poster that contains large areas of primary and secondary colors.
- Teacher turns off the overhead lights and shines the flashlight on the poster, with the colors cycling.
- Teacher rolls up the paper and swabs and throws them away.

Part 2 -- Colored Shadows

- Set up three floodlights in red, blue, and green. Direct them toward the whiteboard.
- Turn off overhead lights and turn on the blue light. Teacher holds one hand in front of the light so its shadow falls on the whiteboard. What color is the shadow? (Black)
- Turn off the blue light and repeat with red, then green, individually.
- Then repeat with combinations of two lights at once so students can see the various colored shadows.
- Repeat with all three lights at once, using both hands to create overlapping shadows on the whiteboard.



Squirting colored paint onto paper.



Colored floodlights.

Part 3 -- Colored Bricks

- Give each student about 20-30 small building bricks. Tell them NOT to build anything with them; they need to be kept separate.
- Students separate their bricks into piles of similar colors and arrange them in rainbow order.
- Teacher walks around with the cycling flashlight to show how the colors of the bricks change.
- Teacher gives each pair of students one of the cycling flashlights so they can take turns shining the light on their bricks themselves.
- Let students get up and move around the classroom, shining the flashlight on other objects.
- Have a box of Tide in the room so students can see how the brightly colored box changes under the lights.
- Have students wave their hand quickly back and forth in front of their flashlight to see what happens.
- Students go back to their places and try to make their red, orange, and yellow bricks all look the same color. Then try the blue light and see if any colors look the same.
- Teacher hands out a plastic cup to each student so they can put their bricks in it, then dump them into the box they came from. Teacher collects flashlights.



Colored bricks arranged in rainbow order.

Equipment List: "Lights & Paints"

Items needed for Instructor:

- Long flexible spring
- Washable poster paints in red, yellow, and blue, in squeeze bottles
- Multi-colored LED flashlight with the option of cycling through the colors automatically (www.thinkgeek.com)
- Three floodlights in red, blue, and green, preferably on dimmer switches
- Poster with large areas of primary and secondary colors
- Box of Tide detergent (you don't need the detergent, just the colorful box)

Items needed for Students:

Consumables:

- Butcher paper, about 2 feet per student
- Cotton swabs, 6 per student

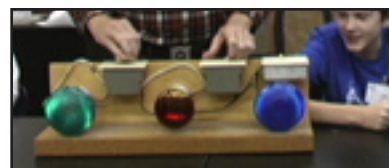
Other:

- Multi-colored flashlight, 1 per 2 students
- Toy building bricks in rainbow colors, about 50 pieces per student.

Prep Work: None



Flexible spring



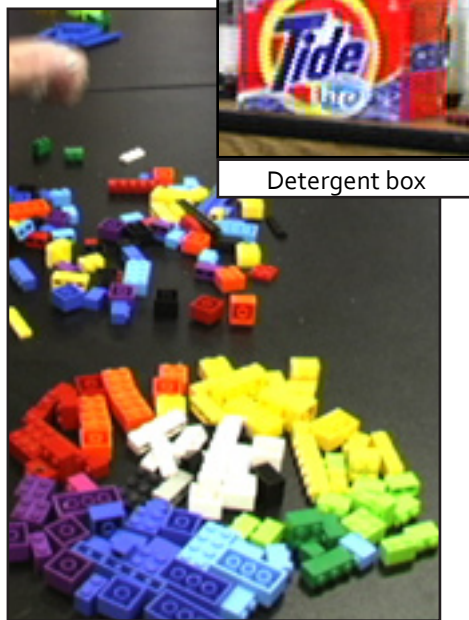
Floodlights: red, green, blue

Poster paints
(use only red, yellow & blue.)

Cotton swabs



Colorful poster



Colored toy building bricks



Detergent box



Multi-colored LED flashlight

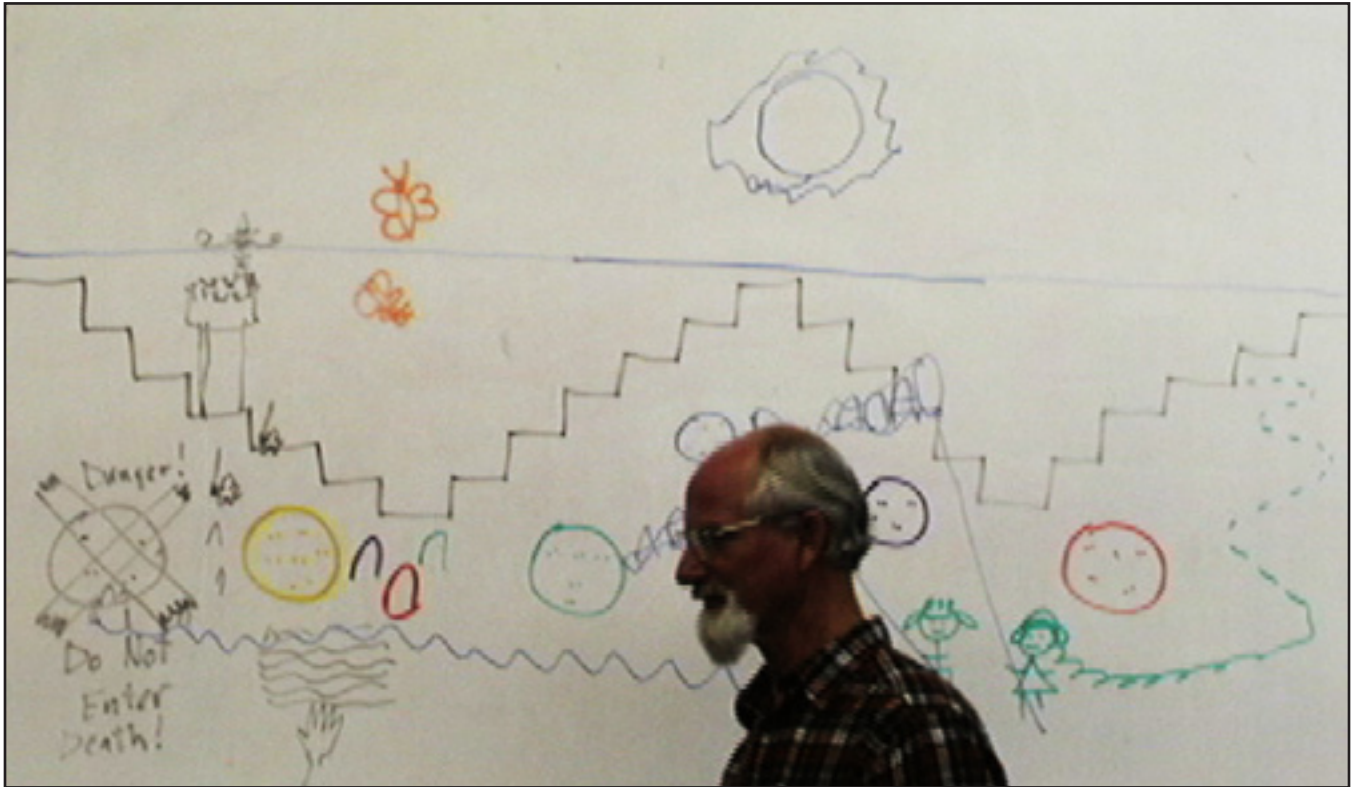
Story Recap: "Jack & Jill and the Colored Caves"



Part 1:

- The people live in caves out on the steppes, which actually look like steps. Each cave is a different color -- red, orange, yellow, green, blue, purple. Inside the caves there were strange writings, drawings of animal shapes, handprints, etc.
- There was one black cave that was boarded up. A sign said, "Danger! Do not enter! Death!"
- Evil Mister Fred built a castle on the steps and was looking for a way to make his minions invincible. He sent them into the black cave to see what was in there.
- The minions ran into the cave with their baseball bats, making lots of noise, but after awhile it got quiet. Evil Mister Fred called to the minions to come out, but they didn't answer.
- He wasn't going to enter the cave, but he ran in to escape a couple of butterflies, which are the only thing Evil Mister Fred is afraid of.
- At the end of the tunnel was a dead end and a sign that said, "All who enter here, beware! You will never come out alive!" He placed his hand on a handprint on the wall, and a door opened. The minions were inside eating candy bars.
- Evil Mister Fred made the minions come out to see if they would die. They didn't, but they changed from their usual black color to other colors, and they were nearly transparent.
- Evil Mister Fred sent the minions into the colored caves to look for valuables they could steal. The red minions went into red caves, blue minions into blue caves, etc.
- The minions went in and carried away candy bars, ignoring everything else. To the people living there, it looked as if their candy bars were just floating away.
- The people called Jack and Jill, who were detectives, to find out what was going on.

Story Quick Recap (cont.)

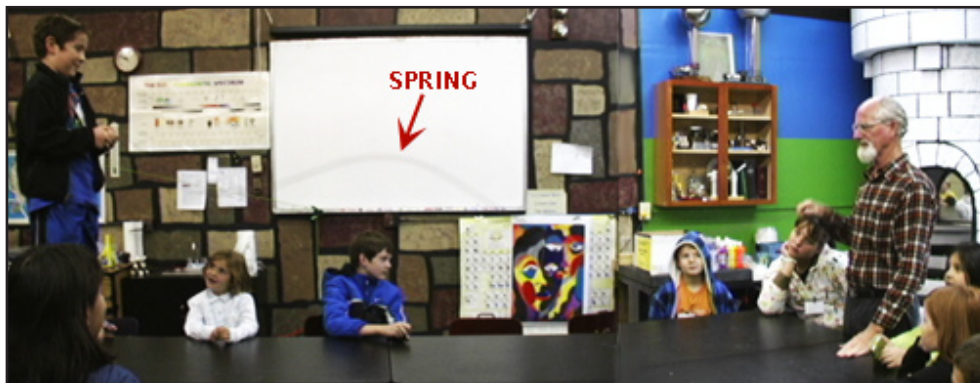


Ending:

- Jack and Jill saw Evil Mister Fred's castle and knew he was behind this, but they didn't know how.
- They called the Acme Store of Everything and asked for something that would let them see through invisibility cloaks, but the store was all out. They offered Jack and Jill a defective sun.
- The sun was blue, and after a little while, it changed to another color, and then another. It cycled through all the colors of the rainbow.
- Back in the cave, Evil Mister Fred was angry because the minions came back with only candy. He showed them some gold, silver, and diamonds and told them to go back and get stuff like that.
- Jack and Jill were waiting outside with butterfly nets, and when the minions came out, the changing colors of the sun made them visible. When the sun was blue, a red minion would show up. When it was red, a blue minion would show up. Jack and Jill caught them in their nets.
- Jack and Jill told the minions they'd let them go and give them candy if they would go back to the black cave, pull off the boards from the front of it, and pull down any other boards they found inside.
- The minions ran back into the cave, pulling down the support beams as they went.
- When they got to Evil Mister Fred, he was angry because they hadn't brought back any treasure. He started jumping up and down, making the ground shake, and the cave collapsed on them.

Transcript: Intro

We're going to be working with light and paint. Let's see, we need somebody to stand on the table. *[Selects a student, who climbs onto the table and stands at one end. Teacher hands him one end of a long spring.]* You're going to hang onto this with both hands and don't let go. *[Teacher moves to other end of table and stands on the floor.]* Turn and face me. Now you're frozen. You don't get to move your hands. You're a statue. You just have to hold on tight.



Student holds one end of the spring still while the Teacher rotates the other end.

Okay, if we're looking at red light, red light might look like this. *[Teacher rotates spring like a jump rope while student holds his end still.]* It has some electrical energy that goes up and down, and some magnetic energy that goes side to side. And when you put the two together, it goes round and round and round. *[Rotating spring has one long wave form.]*

Now, if you want to look at orange light, orange light has more energy in the same space. So you have to put more focus in there. *[Teacher starts rotating spring faster.]* So orange light looks like that. *[Spring now has two peaks in the wave.]* As the humps get smaller, it's like the orange light fading away, fading away, fading away . . .

If you want to look at yellow light, we have to fit more humps in there because there's more energy in yellow than in orange. *[Rotates spring faster, making three peaks.]*

And what's the next color after yellow? *[Students: Green!]* Red, orange, yellow, green. *[Rotates spring to make four peaks.]*

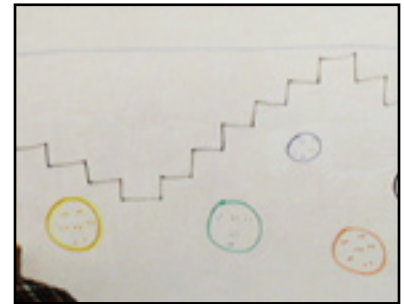
Now, what's after green? *[Students: Blue!]* Blue. This is a really tight spring, so we probably can't get the blue. *[Rotates the spring as fast as he can.]* To try to get five means I'd have to go faster than my hand can go. And of course, there's purple after that. And violet after that. And ultraviolet after that. *[To student on table]* You can let go now. *[Student puts down spring and climbs off table.]*

So when you add energy together, like if you add a red light to a blue light, there's more energy than before. If you put a filter and you take away the red light from the blue light *[picks up a red filter and holds it in front of a student's blue jacket]* -- here's blue light -- then you get less. It looks darker. And paints act like filters. You get filter on filter on filter, it's like adding one paint to another paint to another paint.

If you add a whole bunch of different colors of paint together, what do you get? *[Student: Brown!]* Brown, yeah. If they're really good paints, you might even get black. So today we're going to be goofing around with colors of different sorts just to see what happens to them. But first we need a crazy story.

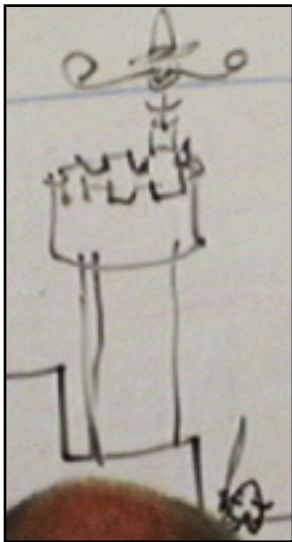
Story: "Jack & Jill and the Colored Caves"

Let's suppose that . . . should our story take place in Egypt, Greece, or Lower Slobovia? *[Students respond.]* Okay, I hear more votes for Lower Slobovia. In Lower Slobovia they live out on the steppes. The steppes are supposed to be grasslands, but in Lower Slobovia they never do anything the same as anyplace else. So they live out on the steps. There, like that. The steps are everywhere. And in Lower Slobovia people live in caves in the steps. And you can tell there are people living in the caves because you can see their eyes, like that, staring out from the caves. And there are various colors of caves.



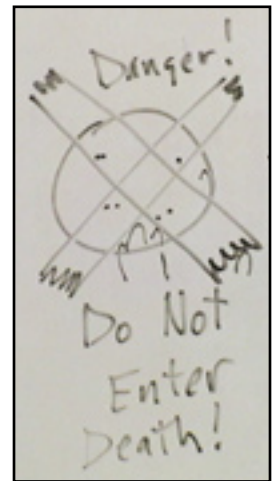
Steps with colored caves.

In those days, there were writings and pictures inside the caves. There were all kinds of strange animal shapes, handprints, and various things drawn in there. And in one of the caves -- let's make a black cave -- there were strange words written all over inside. And somebody had put boards across it that said, "Danger! Do Not Enter! Death will result!"



Evil Mister Fred's castle

Of course, Evil Mister Fred heard about this and he came and built his castle on one of the steps. And he wanted to find out what was in that cave and maybe he could use it to create an invincible army of minions. So Evil Mister Fred told his minions, "Go into the cave." Minions don't know how to read, so they didn't care. And the minions said, "All right, boss." And he said, "Be sure to take the baseball bats." So they all grabbed their baseball bats and they ran into this cave. And all he heard inside was, "Whoa, this is really cool!" All kinds of noisy stuff, tumble, tumble, tumble, fall, fall, fall. "Oh, stop doing that! Hey, I want to go in there! You get out of my way!" There was all this yelling going on in this cave.

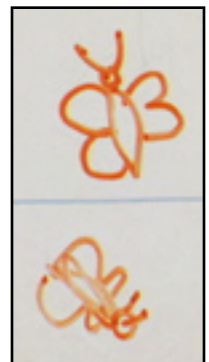


Black cave.

And Evil Mister Fred said, "Okay, come back out!" *[making echoing sound]* "Out . . . out . . . out . . ." "Where are you?" "You . . . you . . . you . . . ?"

And his minions didn't answer. It was perfectly silent in the cave. And Evil Mister Fred said, "Uh, oh. There's something in there." And Evil Mister Fred said, "Well, I guess there's no choice. There's no minions left. I've got to go in and rescue them." He was going to go rescue his minions, but then he thought, "Then I'll die, too."

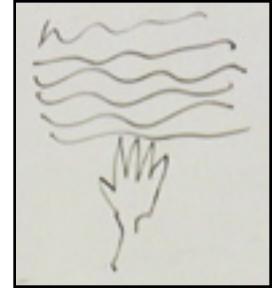
Now, there's one thing that Evil Mister Fred is deathly afraid of: butterflies. And he wasn't going to go in. But about that time, along came a few little butterflies. They were flying through the air, doing their thing. Evil Mister Fred saw them, and butterflies like him because he smells bad. They were following Evil Mister Fred. And the only place he could go was down into the cave, so he ran into this one. And it was dark at first. And then it got lighter and lighter and lighter as he went in. He kept going and go-



Butterflies

ing and going, and there was writing on the walls and pictures on the walls. And he came to a dead end. And he said, "Uh, oh. No minions! What happened?" And he didn't see any other caves taking off this way or that way. And at the dead end there were some words written on the wall: "All who enter here beware! You will never come out alive."

And there was a handprint, like that. And Evil Mister Fred said, "Huh!" So he put his hand right on the handprint, and rrrrrmmmmmm -- a door opened. And there was this huge chamber, and all the minions were sitting there eating candy bars. And Evil Mister Fred said, "Oh, there you are!" And then he thought about the message. And he said, "If I go in, I'll never come out. They're in there. If they come out, they might die. Huh. Hey, minions! Everybody come on out!" Because he wanted to see what would happen.



Handprint & Writing

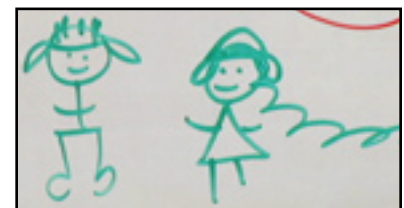
And the minions said, "Oh, no, we like it here. Candy bars, this is great!" And Evil Mister Fred said, "Come out now, or you're in trouble!" And the minions said, "Awww, boss." And they threw down their candy bars. And as they were coming out, the minions, who are usually little black guys, started changing colors. And they almost became invisible. When they were coming through, he could see through them. He could see the candy in their stomachs. And Evil Mister Fred said, "Whoa! The minions look like rainbow colors." And sure enough, there were red minions, and green minions, and blue minions, all the different colors of the rainbow coming out. And they were almost invisible. And then Evil Mister Fred said, "Ah ha! They didn't die. They're kind of a little weird, but they're still alive. This is great." Now he looked at all these other caves, and he knew there was stuff in there. But nobody would ever let him inside. He said, "Ah, ha, ha! Now my minions can sneak in, and they won't even see them."



Colored minions

So that night he said, "Okay, minions, all you yellow guys, you're going to go into the yellow caves. And if you see anything valuable, you're going to pick it up and leave." And of course, the same with the greens and the blues and the purples and the oranges and the reds. That night the minions went tippy-toe to the caves. And they gathered the stuff they thought was valuable, which was candy bars, and left the gold and the silver and the diamonds and the rubies inside. And the people in the caves were sitting there minding their own business. And they'd see a pile of candy bars floating in the air, going right out of the cave. And they said, "What's up with that?" They'd run over and grab some of the candy bars, and this baseball bat would go klonggg! on their head, and they'd fall down.

Well, the next day, all the people from the rainbow colored caves got together and they said, "The strangest thing happened. You wouldn't believe --" And the other person said, "Wait a minute! Same thing happened in our cave. Stuff was just flowing out by itself." And they said, "Uh, oh. We've got to call the famous rescue company and the two best detectives in the world, Jack and Jill."



Jack and Jill

So Jack and Jill came, and they had detective hats on with ear flaps. Jack's got hair on top of his hat. Jill would have hair under her hat. So it's their job to find out what was going on. How was this stuff floating out of these caves? Now, if you're Jack and Jill, how would you discover what was going on?

Imagination and Brainstorming Time

[Students make suggestions] (THERE ARE NO WRONG ANSWERS! Whatever they say, you should reply: "That's a good idea," "They might do that," etc. After brainstorming, proceed with the experiments, then finish the story.)

We'll leave this To Be Continued . . .

Experiment: "Lights & Paints"

Experiment, Part 1 -- Colored Paints

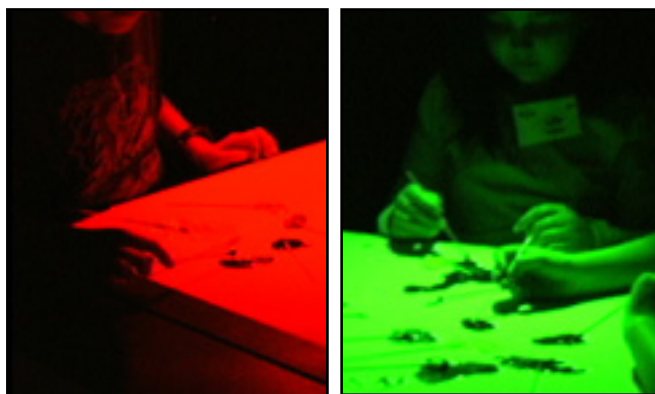
Let's see, for the first experiment, we need some paper on the table. *[Teacher takes out a roll of paper and rolls it out onto the table, so it's in front of the students.]* For this experiment, you need six extremely expensive, high quality paint brushes. And all we're giving you is some terrible nasty little q-tips. So you'll get six of those. Why do you suppose there are six? *[Student: Six different colors.]* Yep, six different colors. *[Teacher passes out six cotton swabs to each student.]*

You need to make six colors, but I'm only going to give you three. We don't want you to just smear all the colors together, because we're going to do something to them. So somewhere when you're done, you need a red, and a blue spot, and a yellow spot. And then you have to make a green spot, and an orange spot, and a purple spot. So don't use up all your red drawing a great big picture, because you're going to need to mix it with other stuff to make the other colors. *[Teacher drips a small blob of each color paint -- red, yellow, and blue -- on the paper in front of each student.]* There. Everybody should have three colors. And try to make six colors. Try to make an orange. Try to make a green. Try to make a purple. *[Students spend a few minutes mixing their colors.]*



Mixing paints to make more colors

I'm going to make it easier for you. *[Teacher turns out lights.]* There. What color do they look like now? *[Students: Dark. Scary.]* Dark and scary? Does it look like the right color this way? *[Teacher turns on a flashlight and shines it on the students' paint blobs.]* Now I'm going to go around again and see if they still look like the right color. *[Teacher's flashlight has multiple colored lights in it. Teacher switches to a red light and shines it on students' paint blobs.]* Do any of them go away? *[Students: The red disappeared.]* Do any of the colors disappear? *[Students: Yes. Orange disap-*



Colored light makes the paint colors change.

pears.] *[After all students have seen the changes under red light, the Teacher repeats the process with a green light, then a blue one. NOTE: On the video, the blue light appears pink, but to the naked eye it's blue, and that's what the students see.]* Now, I'm going to press the button *[on the flashlight]* a few more times, and it's going to start cycling. The flashlight starts blinking through the colors by itself. *[Teacher shines the light on the paint blobs while the light changes colors randomly.]*

There's a poster here on the wall. Can you see this poster? *[Turns on the lights and directs students' attention to a poster containing large areas of solid color.]* You see, it's got purples, blues, yellows . . . We'll let the flashlight shine on it. *[Turns off lights and shines flashlight on the poster, with colors cycling.]* Now, we need to figure out how this is doing that. So, first we're going to roll up our pieces of paper. *[Teacher rolls up the sheets of paper, swabs and all, and throws them away.]*



Left: Original poster. Right: Under red light

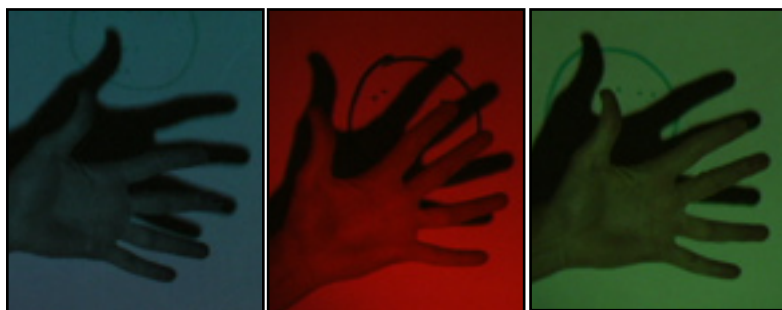
Experiment, Part 2 -- Colored Shadows

[Teacher sets up three floodlights, red, green, and blue. They should have dimmer switches if possible, but it's not required.] These aren't as good as that little flashlight. The green isn't a really intense green. The red's not bad and the blue's not bad. The green is kind of a flaky green. But that's all right. We'll work with what we've got. When I turn this on, I can turn on the green a little or a lot. I can turn on the red a little or a lot. And the blue is either on or off.

We're going to point it over at the board. *[Turns off overhead lights and turns on blue light.]* We'll look at our blue light first. *[Holds one hand out with fingers outspread so the shadow falls on the whiteboard.]* If I make a shadow there, it's kind of a fuzzy shadow. *[Moves hand closer to and away from the board so the shadow gets larger and smaller.]* What color is the shadow? *[Students: Black.]* Okay.



Red, green, and blue floodlights.



Hand shadows under blue, red, and green light.

[Turns off the blue light and repeats the process with the red light, then the green light.] Here goes the red light. What color is the shadow? *[Students: Black.]* Here goes green. What color is the shadow? *[Students: Green. Black. Red.]* There's a little bit of green down there, and a little bit of reddish-pinkish stuff up there.

Now, we're going to do two at a time. Let's add a green to a red. *[Two shadows appear, one red, one green.]* Now, let's turn off the red one and turn on the blue. *[Shadows are blue and yellow.]* Red and blue, turn off the green. *[Shadows are red and blue.]*



Red, blue, and green lights.



Left: Red/Green. Center: Blue/Green. Right: Red/Blue.

Now we'll do all three. Now that looks pretty close to white, doesn't it? *[Students: Yes.]* *[There are now three shadows -- yellow, blue, and purple- and where they overlap, they create additional colors.]* How many colors do you see in the shadows? *[Students call out the colors they see.]* *[Teacher puts away the floodlights.]*

Experiment, Part 3 -- Colored Bricks

Lights are now going to trick your eyes a little bit more. And all we're going to do is sort out colored blocks into piles of the same color. You don't get to build things with the blocks. You don't get to eat the blocks. You don't get to twang them across the table at your neighbors. You're just going to sort them into piles of similar colors. According to previous classes, there are something on the order of twelve colors. You may not get all twelve. *[Teacher scoops out a small pile of plastic building bricks in front of each student, about fifty pieces or so.]* *[Student: Can we build towers?]* No towers. If you make towers, then you have to take them apart again, and you'll waste all your time instead of separating them. We don't have time for building towers today. So separate them all out. And it's better if you can arrange the colors in rainbow order. *[Students arrange their bricks.]*

Now, I'm going to walk around again with the rainbow light. I'll put it on the flashy flashy mode. *[Turns out overhead lights, walks around and shines the multi-colored flashlight on the bricks.]*

[Teacher turns on overhead lights and passes out multi-colored flashlights, one per two students.] When you're sharing it, you'll have it for twenty seconds, and then you'll let your neighbor hold it for twenty seconds. Then you hold it for



Students sort bricks by color, then arrange them in rainbow order.



Bricks under green light.

twenty, and then your neighbor holds it for twenty. Okay, see if you can figure out how to make your flashlight work. There's a button on the very back, and there's a button on the top. And first, look at your blocks and try to look at them with all the different colors. *[Teacher turns off lights and students shine the flashlights on their bricks.]* Then every twenty seconds you hand it to your neighbor. It's a twenty-second turn. *[Students trade back and forth for a couple of minutes.]*

When you get tired of looking at your blocks, wander around the room and look at things in the room. Especially take a look at this Tide box. You have to take turns with your neighbor. One person at a time. If two people are shining on there, it doesn't work. *[Students wander around shining colored lights on various objects in the classroom.]*

Now take your flashlight and wave your fingers in front of it. Wave your fingers, not the light. *[Students see their fingers change colors as they move them quickly back and forth in front of the colored lights.]*

Now go back to your pile and try to make the red, orange, and yellow all look the same color. *[Students shine lights on their bricks.]*

Then click it two times till you have blue light, and see if any of them look the same. *[Students shine blue light on their bricks.]* *[After a few minutes, Teacher turns on the lights and hands out a plastic cup to each student to put their bricks into. Then they dump the bricks back in the box and the Teacher collects the flashlights.]*



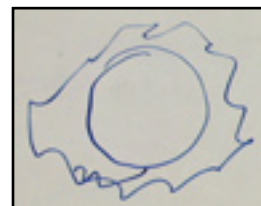
Waving a hand in front of colored light.

End of Story

**** DO NOT * present this part of the lesson until after the experiments!***

So Jack and Jill are suspicious because they see Evil Mister Fred's castle over there. They've heard some noise down from the cave. And they say, "Huh. Somehow he's doing this." But they don't know how. So they call the Acme Store of Everything, and they say, "Hey, Acme Store of Everything, do you have any invisibility cloak shower-uppers, or anything like that?" And they said, "Sorry, we're all out." And Jack and Jill said, "Well, what have you got? We've got some invisible people running around here." And the Acme Store of Everything said, "Well, all we have is a few leftover suns. We can give you a good deal on some suns. We've got one that's really defective." Jack and Jill said, "Send that. That'll be fun."

So they sent them a brand new sun. The sun showed up, and it was blue. And everything was weird, because remember when you shine blue light on stuff? Everything went weird. And then a little while later, the blue sun changed to purple. And now everything looked weird again because there was purple light. And the sun cycled through all these rainbow colors. And Jack and Jill said, "Whoa, this is pretty cool."



Blue sun.

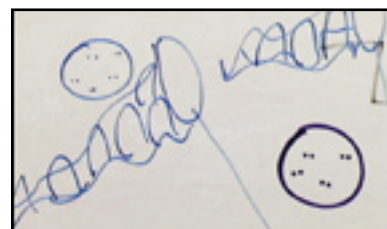
Well Evil Mister Fred didn't know about it, because he's down in his cave. He sends his minions out, and he's mad at them because they came back with candy. He says, "Minions, you idiots! When you go in there, look for gold. This is what gold looks like." And he showed them gold, and hit them over the head with it, so they knew what it felt like. "This is silver." And he showed them some silver spoons -- twang! with the spoons. "This is a diamond." And he showed them a diamond, so he showed them all the valuable stuff. And then they said, "Okay, boss, this is great! We're going to go do this."

So the minions all headed off, and they're all different colors, and they're going to sneak into all these different caves. Well, the sun now was cycling red, orange, yellow, green, blue, violet, like that. And Jack and Jill were waiting outside, and they brought with them some great big nets. Butterfly nets, like that. And when the minions came out, they could see them when the light from the sun was just right. If you had a red minion when the sun was blue, he'd show up really good. Or if you had a blue minion, when the light was red, he'd show up really good.



Jack and Jill with butterfly nets.

And Jack and Jill went out, and they were trapping minions in their butterfly nets. They've got minions stuck in their nets. And everybody came out, and they couldn't believe their eyes. Almost invisible minions. And Jack and Jill said to the minions, "Well, we caught you now, minions. What are you going to do about it?" And the minions said, "We're going to cry. We'll hit you with our baseball bats. Yeah, that's what we'll do." They're all struggling around in the nets. And Jack and Jill said, "Well, you know, we would let you go, but you'd have to do something for us." And the minions said, "Oh. What?"



Minions caught in nets.

And Jack and Jill said, "Well, we'll give you lots of candy if you go back to your cave and pull off those boards that are on the front. And then run in as fast as you can go." And the minions said, "All right. We'll do that." And Jack and Jill said, "And be sure and pull apart any other boards you see in there as you go down." The minions said, "Yayyy!"

So Jack and Jill let all the minions free. And the minions were cheering and running back home. "Woo-hoo! We're free, we're free!" And they ripped the boards off the front of the cave. And then when they went inside, they saw other boards. But it was great big thick ones. And the minions said, "Oh, gotta pull these off!" And they were whamming them with their baseball bats, and tugging and pulling on them. And they managed to pull some of the great big boards away. And they ran down inside where Evil Mister Fred was. And Evil Mister Fred said, "What was all that noise? And where's the treasure?" The minions said, "Oops! We forgot the treasure. We were so happy we got away that we forgot it." And Evil Mister Fred said, "Arrrrghhh!" And he was jumping up and down and yelling at them. He was shaking the ground. And when he did, since the minions took away all the support boards, the cave went ka-boom!!! And the whole front of it collapsed. And Evil Mister Fred and his minions were trapped inside. And they all lived happily ever after, except Evil Mister Fred.

End of Lesson

If you have questions about this lesson, please ask them through the online [Teacher Support Forum](#) on our web site.