

Shoebox Pinhole Cameras!

Expectations

1. Be Respectful

- a. Be on time, in assigned seat, talking level zero, ready to learn.**
- b. Do not talk out of turn.**
- c. Respect others and their space.**
- d. Use respectful language.**
 - i. No swearing**
 - ii. No put downs**

2. Stay on Task

- a. Phones put away.**
- b. Computers for classwork only.**

Consequences

1st Offense = Student receives Warning (verbal or written); acknowledges wrong.

2nd Offense = Right wrong (move seats, apologize, clean up mess, etc)

3rd Offense = Student must come to photo room after school to call home & help Mrs. Alger

4th Offense = Student required to meet with parents and Mrs. Alger and/or write 1-page paper, signed by parents

5th Offense = Referral to Office

Day 1

Objective: To explain why the inside of cameras need to be light proof.

Pinhole Cameras

The shoebox camera is the simplest of all cameras. It has no moving parts and can be built and used by just about anyone. It has no lens, rather a pinhole which, because of physics, will act like a lens because of its small size.



Materials

Materials Needed:

- Shoebox
- Black Tape
- Matte Black Paint



Step 1:

- 1) First, tape all the edges of the box and lid so when you close it, it will make a nice seal.



Tape all holes in your box

- Cover:
 - Holes
 - Corners
 - Edges
 - Anywhere light can get in your box



9:59

Step 2: Paint the inside black

Paint the interior of your box black.

- a) The objective is to make it 100% light proof, otherwise your paper/film will be exposed and your picture ruined.



Paint the inside of your box black

- Remember to get the corners!
- Please keep your station neat



Clean Up!

- Wipe down tables (get off all paint)
- Rinse Brushes (1 group member can go to restroom)
- Put boxes on table to dry (lids off for air circulation)
- Put chairs back in correct spots

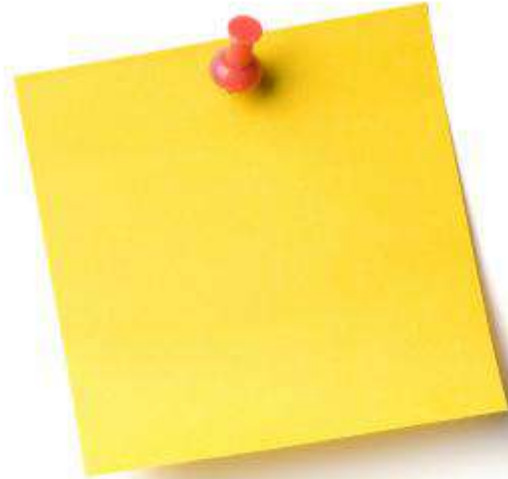


Exit Ticket

On the back of your sticky note, explain in 1-2 sentences why our boxes need to be black and have no holes.

Remember to neatly write your name and period on your paper

Turn into box at the door.



Day 2

Materials needed for today:

2

Do Now:

1) What is the purpose of a camera's shutter?
¿Cuál es el propósito del obturador de una cámara?

Write your answer on the front of your sticky note. *Remember to neatly write your name and period on your paper*

Do Now

C



Voice level 0

H



Work independently

A



Complete Do Now in 5 minutes

M



Stay in assigned seat

P

100
%

Give 100% effort

S



Success!

Homework:

Due:

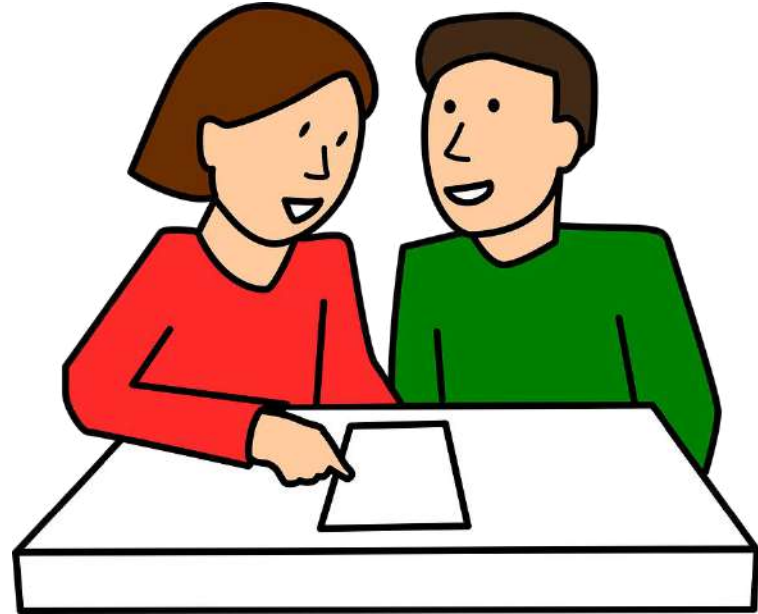
Assigned:

Remember:

- Electronics should be off and out of sight.
- Uniforms should be on point. Sweatshirts are plain black, white or grey, and shirts need a collar!

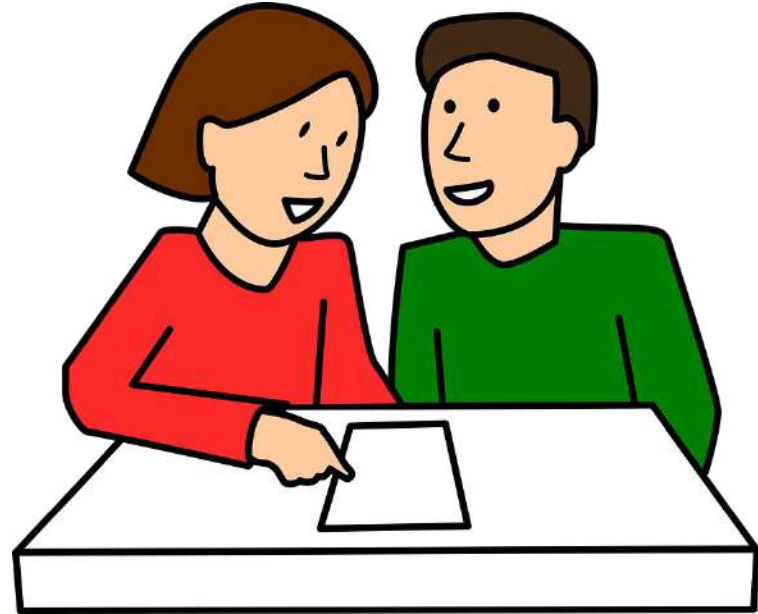
Review

- 1) Turn and talk - share with your neighbor.
- 2) Share with the class



Objective: To explain what the function of a shutter is in a camera.

- 1) Turn and talk - share with your neighbor.



During the movie, write down the materials needed and the steps the students took to make a shoe box.

Durante la película, anote los materiales necesarios y los pasos que los estudiantes tomaron para hacer una caja de zapatos.

Example:

Materials: shoebox, paint, _____, _____, _____.

Step 1 - gather materials

Step 2 - cut 1x1 hole

Step 3 - _____

Pass them to the front at the end

Remember to neatly write your name and period on your paper



Pinhole Camera Photographer

Chris Keeney is a pinhole camera photographer. View his favorite images taken with a pinhole camera here: <http://chriskeeney.com/some-of-my-favorite-pinhole-photographs>

Choose an image that interests you the most. On a piece of paper, answer the following questions:

- 1) Describe the image you are interested in the most.
- 2) What attracted you to this image?
- 3) Do you like the image? Why or why not?

Elija una imagen que le interese más. En un trozo de papel, responda las siguientes preguntas:

- 1) Describa la imagen que más le interesa.
- 2) ¿Qué te atrajo a esta imagen?
- 3) ¿Te gusta la imagen? ¿Por qué o por qué no?

Image #1



Image #2



Image #3



Materials

Materials Needed:

- Small piece of thin metal
- Push pin
- Tape



Step 2:

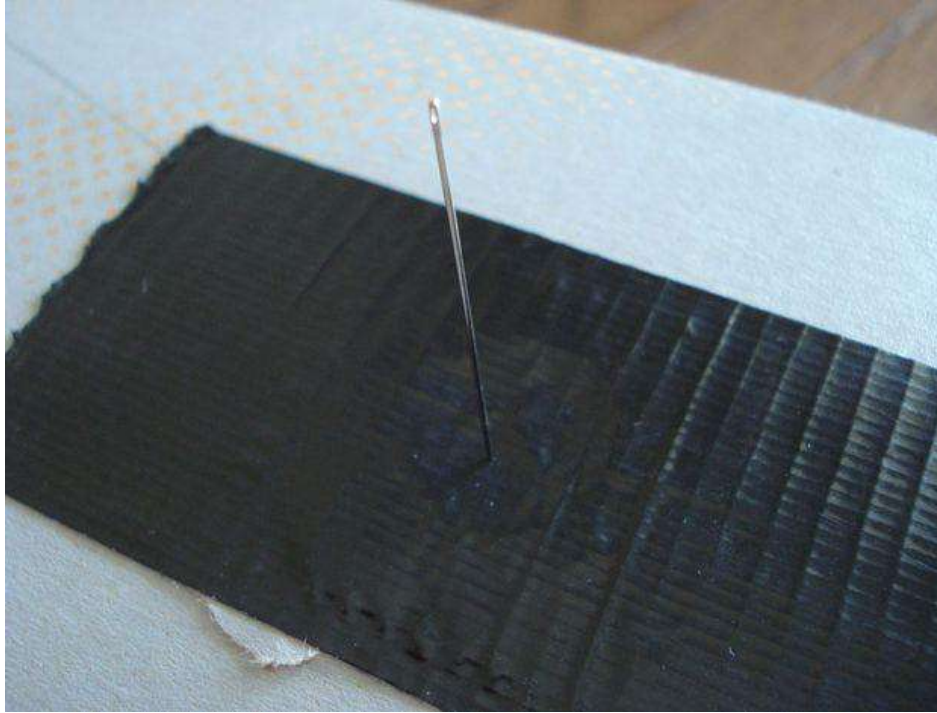
Cut a finger-sized hole in the middle of one of the long sides of the box. Then tape your piece of metal to the outside of the box, centered with the hole. The piece of tape should be larger than the metal and completely cover it.

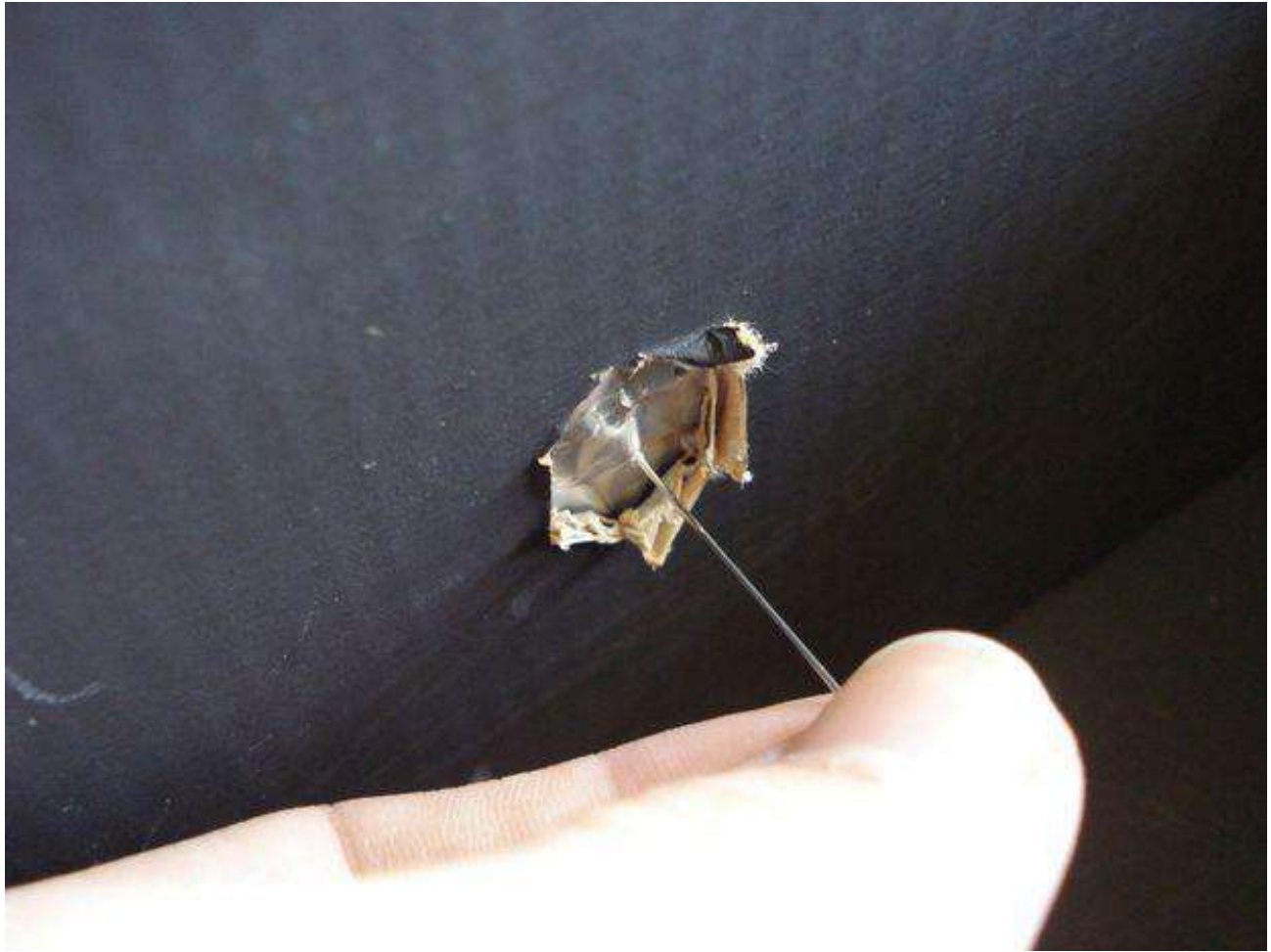


Step 3:

The pinhole is the most crucial part of the camera.

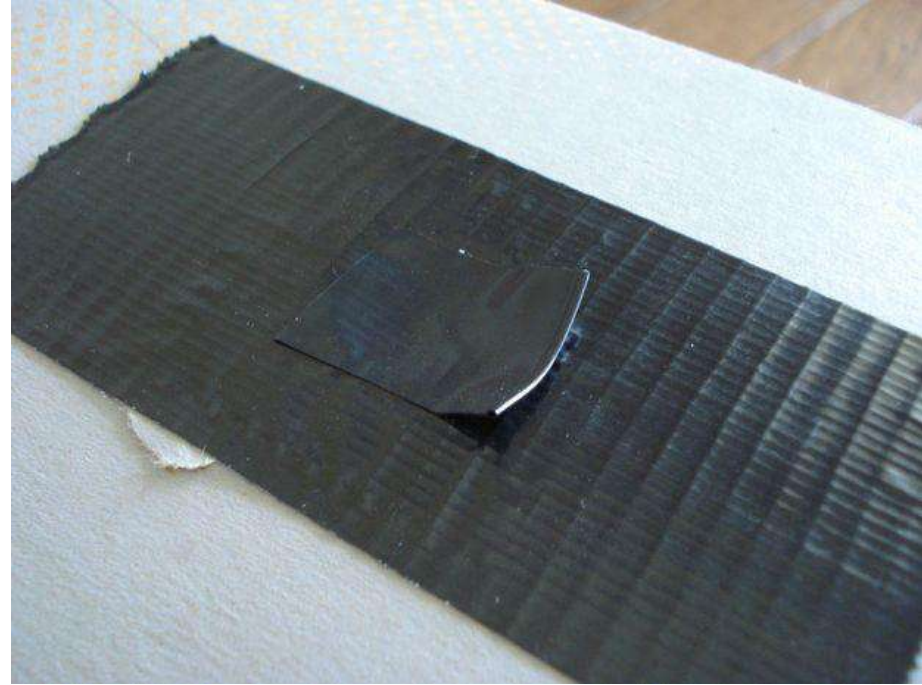
1. CAREFULLY cut a square smaller than your metal piece in the direct center of your lid.
2. Poke a hole directly in the center of your piece of metal with a push pin. Put a piece of cardboard under before poking to keep the integrity of the metal.
3. Tape the metal “lens” in the direct middle.





Step 4:

Create a shutter by covering the pinhole up with a small piece of tape. Take down the shutter so no light leaks in when it's not supposed to be open.



Clean Up!

- Wipe down tables
- Clean up materials
- Put boxes on table
- Put chairs back in correct spots



Exit Ticket

On the back of your sticky note, explain in 1-2 sentences what a shutter does in a camera?

En la parte posterior de su nota adhesiva, explicar en 1-2 oraciones lo que hace un obturador en una cámara?

Remember to neatly write your name and period on your paper

Turn into box at the door.



Day 3

Materials needed for today:

2

Do Now:

1) Why do you load film in total darkness?
¿Por qué cargamos la película en total oscuridad?

Write your answer on the front of your sticky note. *Remember to neatly write your name and period on your paper*

Do Now

C



Voice level 0

H



Work independently

A



Complete Do Now in 5 minutes

M



Stay in assigned seat

P

100
%

Give 100% effort

S



Success!

Homework:

Due:

Assigned:

Remember:

- Electronics should be off and out of sight.
- Uniforms should be on point. Sweatshirts are plain black, white or grey, and shirts need a collar!

Step 5:

Now your shoebox camera is complete and you're ready to test it. ***In a completely darkroom***, tape a piece of film on the opposite side of the pinhole, being sure that it is flat against the side. Close your box and it's ready to shoot.



Step 6:

When you go to shoot your first photo, you will really be completely guessing on the exposure time. Some only take 30 seconds whereas others may take tens of minutes. It all depends on how big your pinhole is, how sensitive your photo paper is, and how bright the scene your shooting is. After you've exposed your photo paper, place the tape back over the pinhole and head back to the darkroom to develop your photo.



Step 7:

Send the film to a darkroom for developing.



Darkroom Process



Exit Ticket

On the back of your sticky note, explain what why we loaded and unloaded the film in the dark?

En la parte posterior de su nota pegajosa, explique por qué cargamos y descargamos la película en la oscuridad.

Remember to neatly write your name and period on your paper

Turn into box at the door.



Clean Up!

- Wipe down tables (get off all paint)
- Pick up trash
- Put chairs back in correct spots

