A Pinhole Becomes A Lens!

Tomoyuki Uchiyama,

Aomori Prefectural Towada Technical High School
Aomori Pref.
Tachineputa

Taken at: Tappizaki

Rice

Aomori Pref.
Towada City
Towada Art Center

Flower Horse
Jonfa Che
Aomori Prefectural Towada Technical High School
Aomori Prefectural Towada Technical High School
Inter-High School Championships

Archery

Cycling

Japanese Kung Fu

Source: THE DAILY TOHOKU
What is this photo?

Source: NHK Creative Library
Annular Solar Eclipse  May 21, 2012
Total Solar Eclipse of 2017 August 21
Let's make a pinhole camera

Outside box A

Inside box B
Let's make a pinhole camera

(1) Remove release paper
Let's make a pinhole camera

(2) Use double-sided tape to assemble
Let's make a pinhole camera

(3) Attach the powder paper to inside box B
Let's make a pinhole camera

(4) Put the inside box B in the outside box A
Let's make a pinhole camera

(5) Take a look at a bright place
Look at a light source.

What do you notice?
It's upside down
Can make it smaller
Can make it bigger
Let's look at a different light source
Let's make more pinholes

Add several pinholes in the blue circle
Kitakyushu City, Fukuoka Pref.  
(Taken by: Mitsuo Arikado)

Australia  
(Taken by: Shinichiro Nishizaki)
Pinhole size
Pinhole size

too big = blurry
too small = too dark
Let's make a really bright camera

Put a scissor into the center pinhole
Let's make a really bright camera

Make cuts in the paper until blue line
Let's make a really bright camera

Push into the box
Let's make a really bright camera

Affix the lens using tape
Take a look around
Advantage

Image is bright and clear

Disadvantage

Focus needs adjustment
To see an eclipse

Find a place where the light comes through the trees and makes a nice image beforehand
(You don't need to search too hard, you can also watch with a pinhole)
Caution

Never look at the sun directly, even during an eclipse, with only the outside box A or with a lens camera.
Taking a color photo through a pinhole

A camera made using a metal box
Let's take a color photo

Put the instant film in the metal box
Let's take a color photo

Apply the development fluid to the film with a roller in a black bag.
Wait for around 1 min.
for the photo to develop
(instant film instax mini)
A Pinhole Becomes A Lens!

Tomoyuki Uchiyama,

Aomori Prefectural Towada Technical High School