1. **Gather your materials.** This experiment will allow you to create a light pinhole, which will show you how light travels in a straight line by filtering it through a hole. To create a light pinhole, you will need the following supplies;
* Three index cards.
* A piece of blu tac or you can also use double sided tape.
* A flashlight, a laser pointer or the torch function on a phone.
* A hole puncher or scissors.
* A ruler
1. **Punch a hole in the centre of the cards.** To do this without any excessive measuring, use the ruler to draw two diagonal lines on a card that connect the opposite corners of the card. Repeat this for the other two cards.
* Take the hole puncher or scissors and punch a hole at the centre of the card where the two lines intersect. Do this for the other two cards.



1. **Use the modelling clay to stand up the cards.** The cards need to stand vertically, at equal distance from each other, and in a straight line for this experiment to work.
* Form a stand for the cards using the clay so the cards are straight and upright. Use the ruler to ensure the cards are two to five inches from each other.
* You can also use double sided tape to attach the cards to a surface in a vertical position. Do not cover or obstruct the hole in the centre of the cards with blu tac or tape.

**What happens if the cards are not in a straight line?**

1. **Position the flashlight, laser pointer or the torch on your phone at one end of the row of cards.** Hold the flashlight in your hand so it hits the centre of the hole in the first card. Turn on the flashlight, laser pointer or torch on your phone.
* Note that the light can be seen through all the holes. You should be able to see the light go through all the holes and land on a wall or surface beyond the last card.