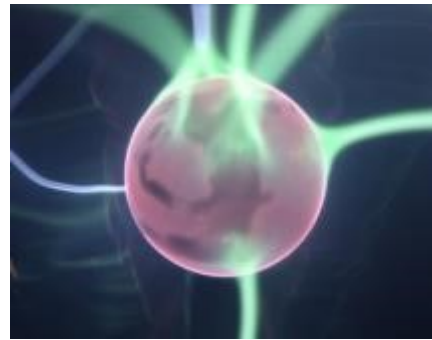


CAMERA OBSCURA & WORLD of ILLUSIONS



WORKBOOK

NAME: _____

Before you begin, remember to count how many stairs you climb from Reception up to the Rooftop Terrace. How many are there?

LEVEL 3: EYE SPY EDINBURGH

Use the pictures of old Edinburgh to answer these questions.

1. When were public horse-drawn carriages introduced? _____
2. When was Bowhead House demolished? _____
3. What is the North British Hotel called today? _____

The **View-Cams** can see all over Edinburgh when you move them around and zoom in. Use them to spot these sights:

Name 3 landmarks you can see

1. _____
2. _____
3. _____

Tick these off when you see them:

- A bus on the Royal Mile
- Someone on their phone
- George Heriot's School
- A seagull

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

The **Thermal Camera** uses colour to show differences in temperature. What colour shows that something is hot? What about if it is cold? Write "hot" and "cold" in the arrows below next to the correct colours.



What year did one of our visitors discover they had cancer after seeing a warm patch appear on our **Thermal Camera**?



Which parts of you are warm? _____

Which parts are cold? _____

LEVEL 5: THE MAGIC GALLERY

There are two exhibits on this level that can make a spinning animation. One is of a running horse, and the other is of a dancing man. What are these exhibits called?

1)

2)

What is the main difference between them?



When you touch the plasma ball or tubes, charged particles inside move to let the electricity flow over your skin and to the ground. Different colours are made by gasses inside the tubes. If you touch other people while touching the exhibits, you might make some really big sparks as the electricity escapes!

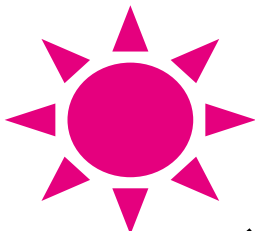
Have a go in the Shadow Wall. Can you make shapes in the shadows with your body? Try these :

Star

Ball

The first letter of your name

Try drawing a mirror image of the shape below.



What is the difference between the normal mirror and the true mirror?

LEVEL 6: THE ROOFTOP

Can you find the answers to these questions on the Rooftop Terrace? Don't forget, you can ask your guide for help—you might even hear some of the answers in the Camera Obscura show! Remember to fill in your stair count on the first page.

1. Who was Maria Short?

2. Camera Obscura is a Latin phrase. What does it mean in English?

3. How many children attended the Castlehill School? What is it used for today?

4. Why is Patrick Geddes important in the history of the Camera Obscura?

5. Find this quote and fill in the missing words:

*"In no _____ in the _____ do so many people
_____ in so little room as in _____"*

- Daniel Defoe

6. Where can you get married for free if you have the correct name?

7. Which building visible from the rooftop has a bronze ribbon twirling up into the sky?

8. How long is the Royal Mile?

LEVEL 4: THE LIGHT FANTASTIC

Watch someone using the Severed Head Illusion.
How many mirrors are needed to make it work?
Why are these mirrors important?



Mixing colours of light is very different from mixing colours of paint. Use the Colour Shadow Wall to work out the recipe for making these colours;

Orange =

Green =

Purple =

Have a go on the Balance Board.
How long can you last on it?

What muscles can you feel working while you're trying to balance?



Finish this quote:

"_____ is an illusion,
_____ doubly so"

- Douglas Adams

Watch people using the Ames Room. It tricks you by messing with your sense of P_____.

Now go in the room yourself. What do you notice about the design of the room?

LEVEL 2: BEWILDERWORLD

Try walking through the Vortex Tunnel. It might make you feel dizzy... our sense of balance relies on our eyes and our inner ear. When our senses tell us conflicting things—like when it appears that the wall is moving—it confuses our brain and makes us feel dizzy.



How many mirrors make up the Mirror Maze?

18

28

38

Why do we ask you to wear gloves when in the Maze?

How many senses do you have?

Human beings have many more than five senses. For example, we have a sense of balance to tell us whether we are falling. Scientists think we have more than 10 senses. Can you think of any others?



Did you find your way out of the Mirror Maze?

Thanks for visiting!