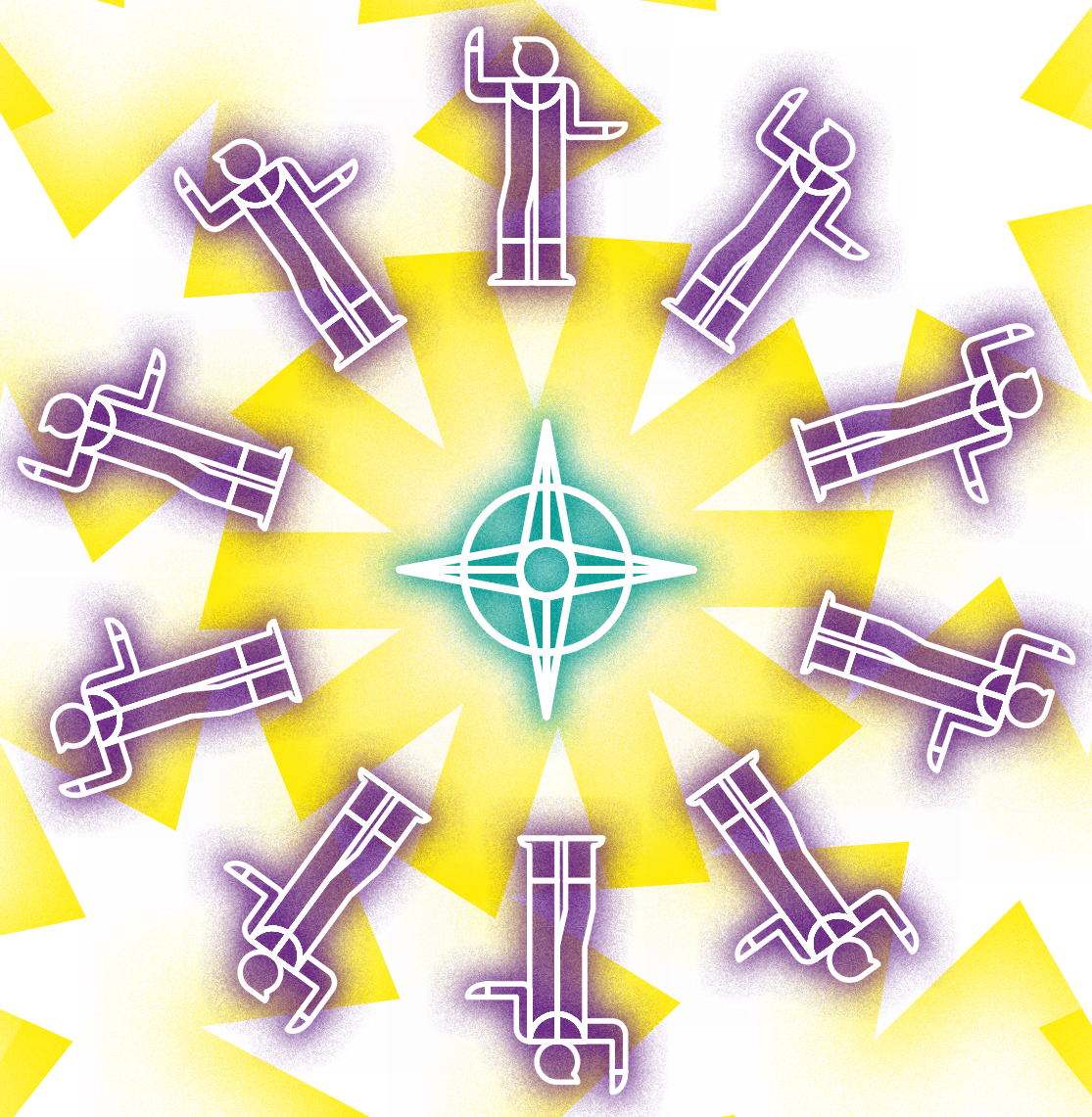
ROYAL OBSERVATORY GREENWICH

KS2 TELESCOPE TRAIL

Name:

Lloyd's Register Foundation



Hello and welcome to the Royal Observatory Greenwich!

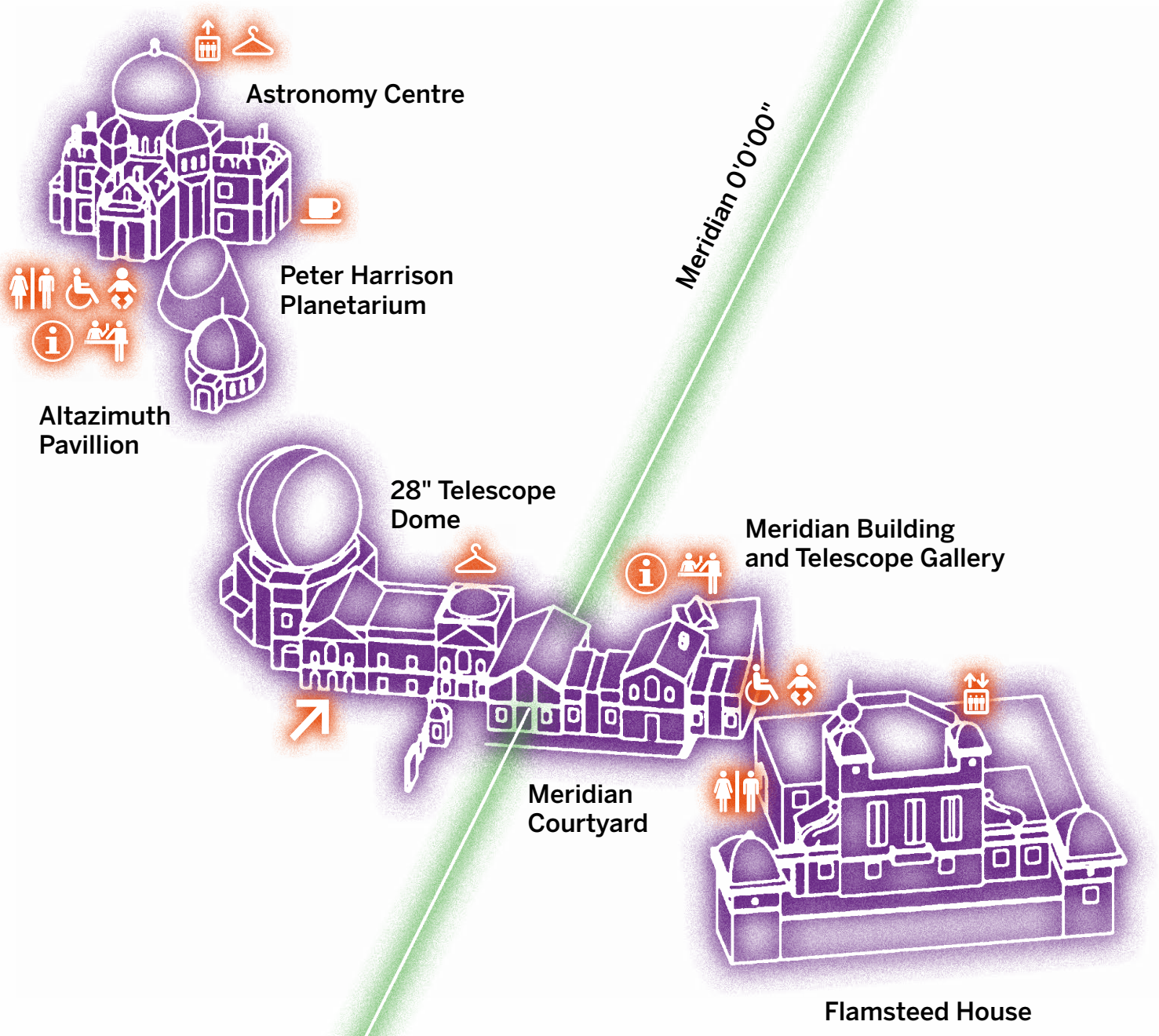
King Charles II founded the Royal Observatory in 1675 to help people all over the world find out where on Earth they were.

There have been 10 Astronomers Royal who have worked and lived here. This trail will help you discover more about some of the Astronomers Royal and the different telescopes that we have here.

Are you ready? Let's go!

Map

Use this map to help you find your way around.

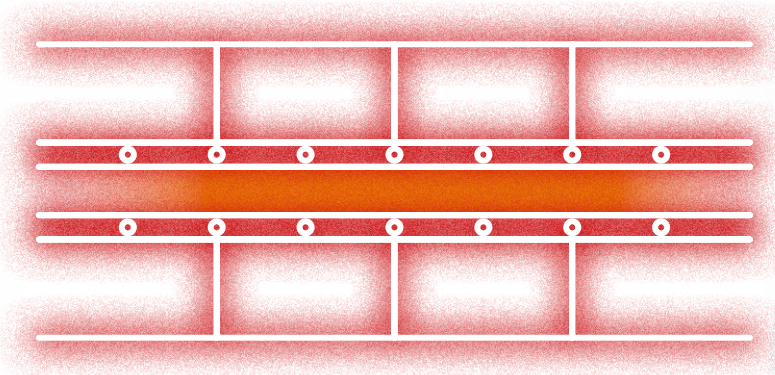


1

Find **Flamsteed House.** It is the building with the red **Time-Ball** on top. This is the oldest building at the Royal Observatory and John Flamsteed was the first Astronomer Royal who lived and worked here.

The red Time-Ball was added later on so that sailors on the River Thames can set their clocks before going out to sea. The Time-Ball would rise and fall at 1pm every day.

Why do you think it was painted bright red?



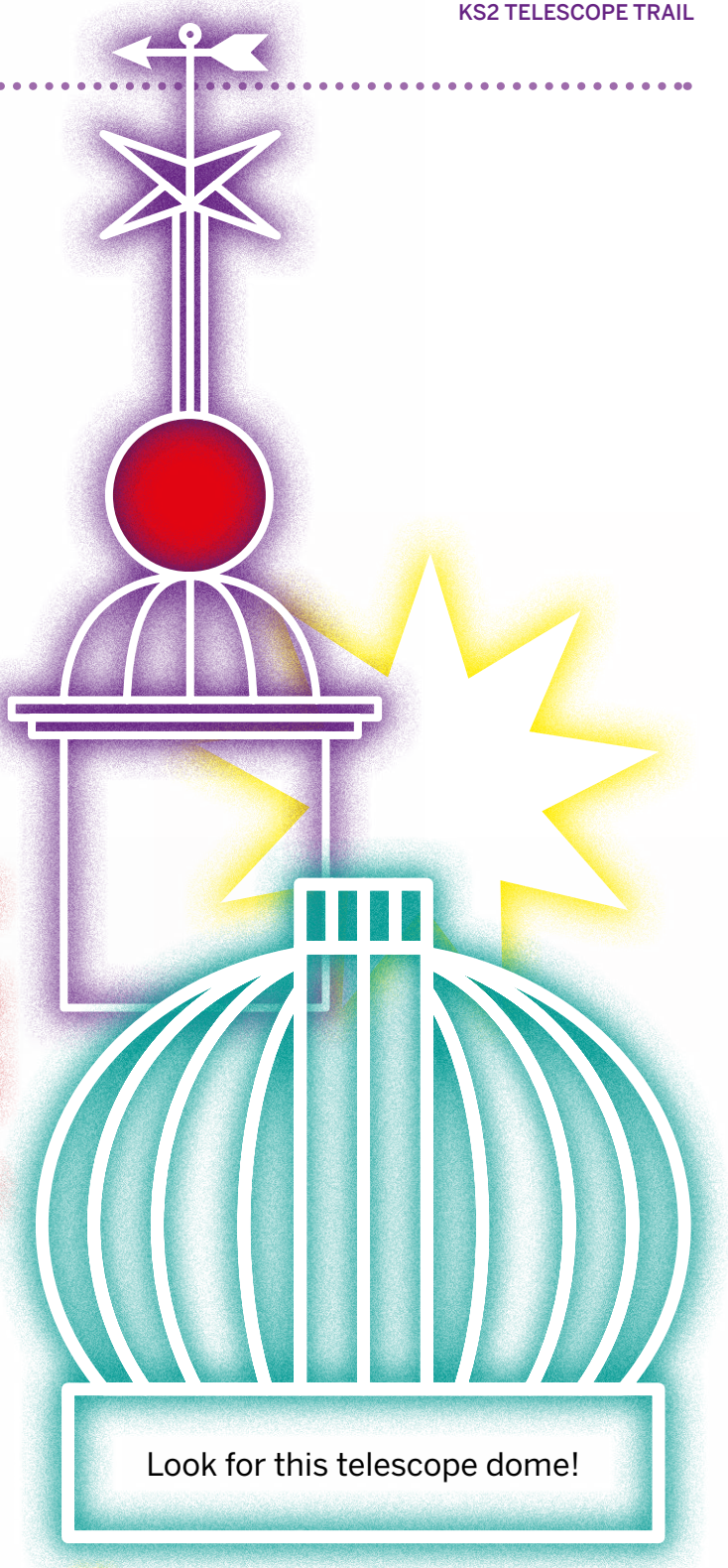
2

Find the big brass line on the ground.
This line is called the **Prime Meridian** and runs from north to south and splits the Earth into two halves, east and west.

Find Sydney and write down how far east it is from Greenwich:

If you stand on the line, one of your feet will be in the east and the other in the west.

William Christie was the eighth Astronomer Royal. He was one of the people who decided it should go through Greenwich.



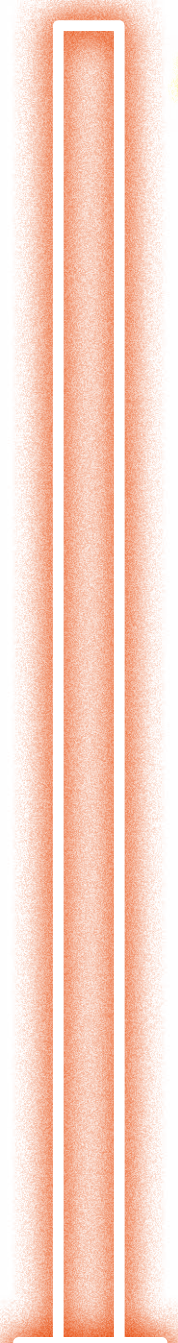
3

Look up at the **Meridian Observatory**.

Can you see a green dome shaped like an onion?

Inside this dome is the **Great Equatorial Telescope**. It is the biggest telescope of its kind in the country!

Go inside the **Meridian Observatory** and turn right.
At the end is Halley's Transit Room.



4

There is a telescope right at the end that looks straight up. To use it, the astronomer had to sit on a chair and look up through it like the man in the picture.

It could not move very much and astronomers had to wait for the stars to move over the telescope before they could see them.

Even though it does not look all that special, it actually helped prove that the Earth is moving through space!

Write down 2 good things and 2 bad things about using this telescope.

Good:

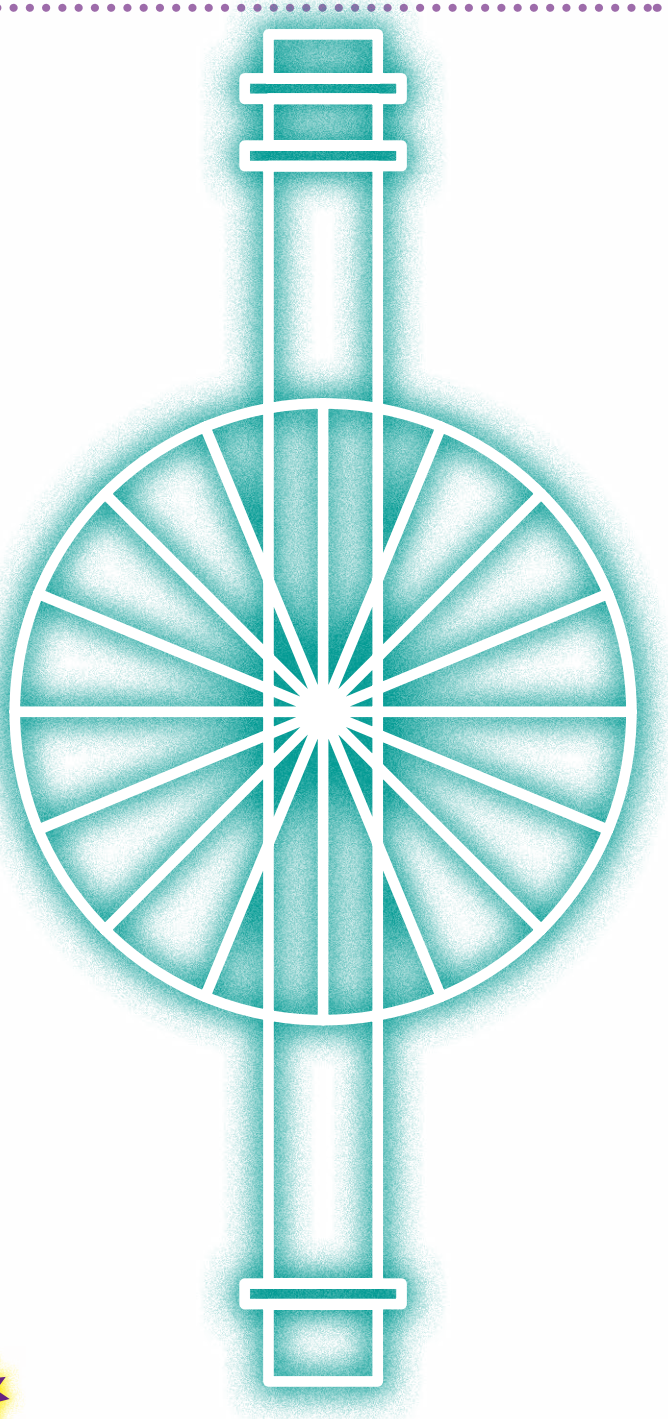
1. . . . . .

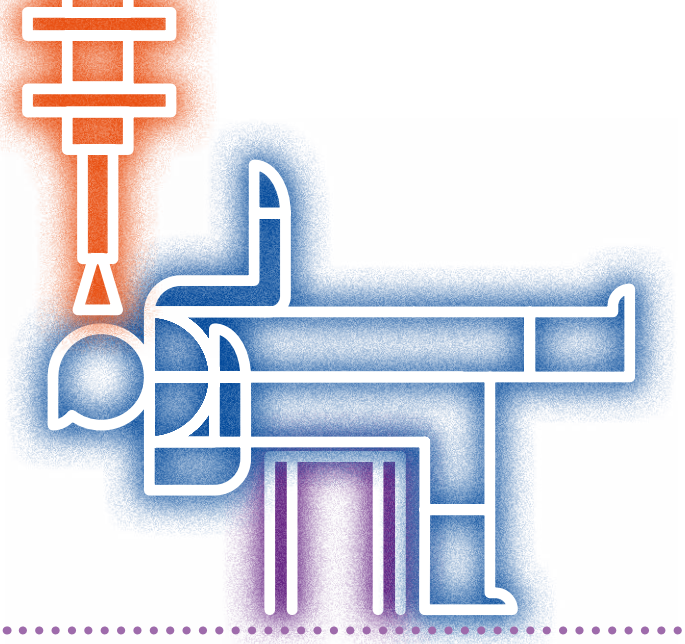
2. . . . . .

Bad:

1. . . . . .

2. . . . . .





5

Go to the other side of the Meridian Observatory to the **Airy Transit Room**.

George Airy was the seventh Astronomer Royal. This was his telescope. The roof had to be opened before the telescope could be used.

Watch the video of the man opening the roof.

Look outside the window. What can you see on the ground outside?

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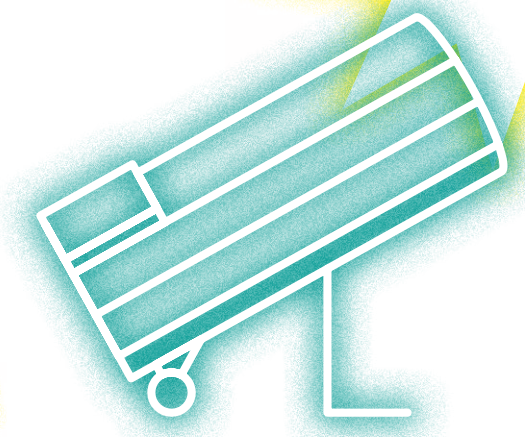
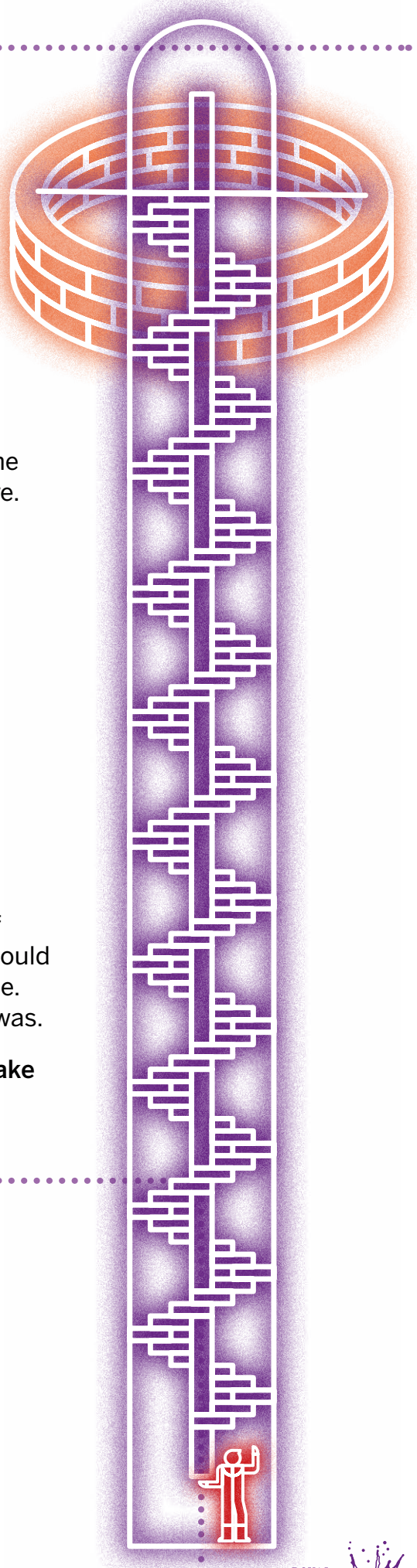




6

Find **Herschel's telescope**. This is actually only part of it. The rest got crushed when a tree fell on it. The full length of the telescope was 40 feet — 4 times longer than what you see here.

It used a mirror to

. . . . . .

light from stars to the eyepiece.

7

Some old telescopes had to be very long so that astronomers could see things that are very far away.

Astronomer John Flamsteed built a well in the 17th Century that was 30.5m (that's about 7 double decker buses on top of each other) deep and he placed a **telescope in the well**. He would then sit at the bottom of this well to look through his telescope. Find the circle made out of bricks that shows where this well was.

Draw in this box what you think he might have needed to make himself comfortable in the well. Remember, he did not have electricity so did not have things like TVs and computers.

Go past the **Time and Navy** gallery. Turn right and look for the orange building called the **Altazimuth Pavilion**.

8

Can you see something on the top?

The second Astronomer Royal, Edmund Halley realised that people on Earth can see this comet every 75 years. It will not be back until 2061.

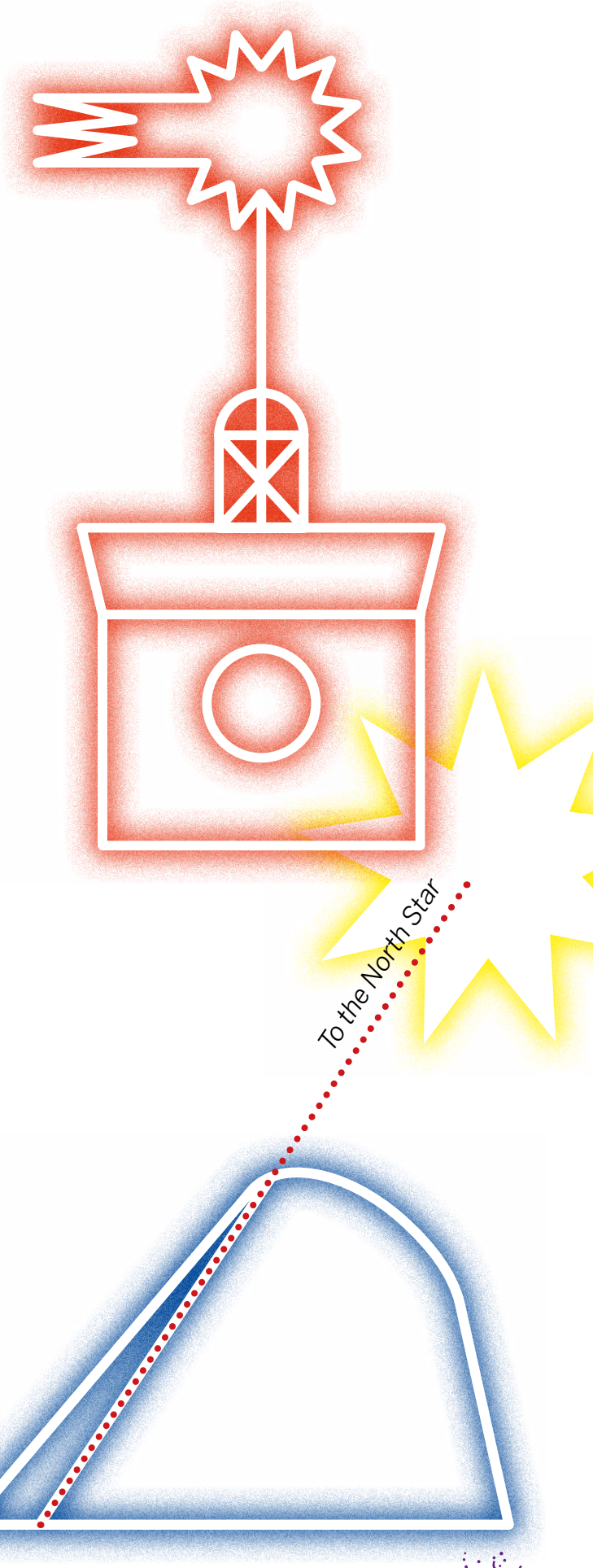
This building was built by William Christie. Go inside the building.

There was a telescope here that was used to take photos of the:

. . . . . .

Which is a:

. . . . . .



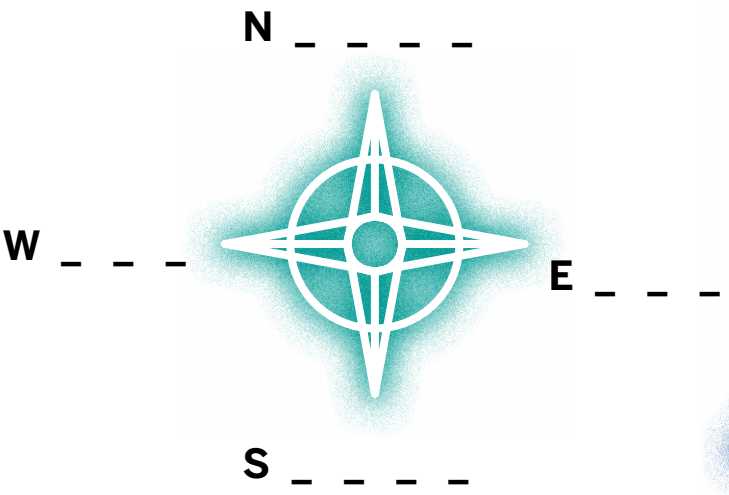
9

Underneath this metal cone is the **planetarium**.

If you look up at the sky along the line at the back of the cone, you will see where the North Star is.

The North Star is used to help people find out where they are on Earth.

Complete the labels on this compass:



10

This building was also built by William Christie in 1899. Go to the steps and look at the side of the building, you will see five names.

Write down the name of the scientist who is thought to have discovered gravity after an apple fell on his head:

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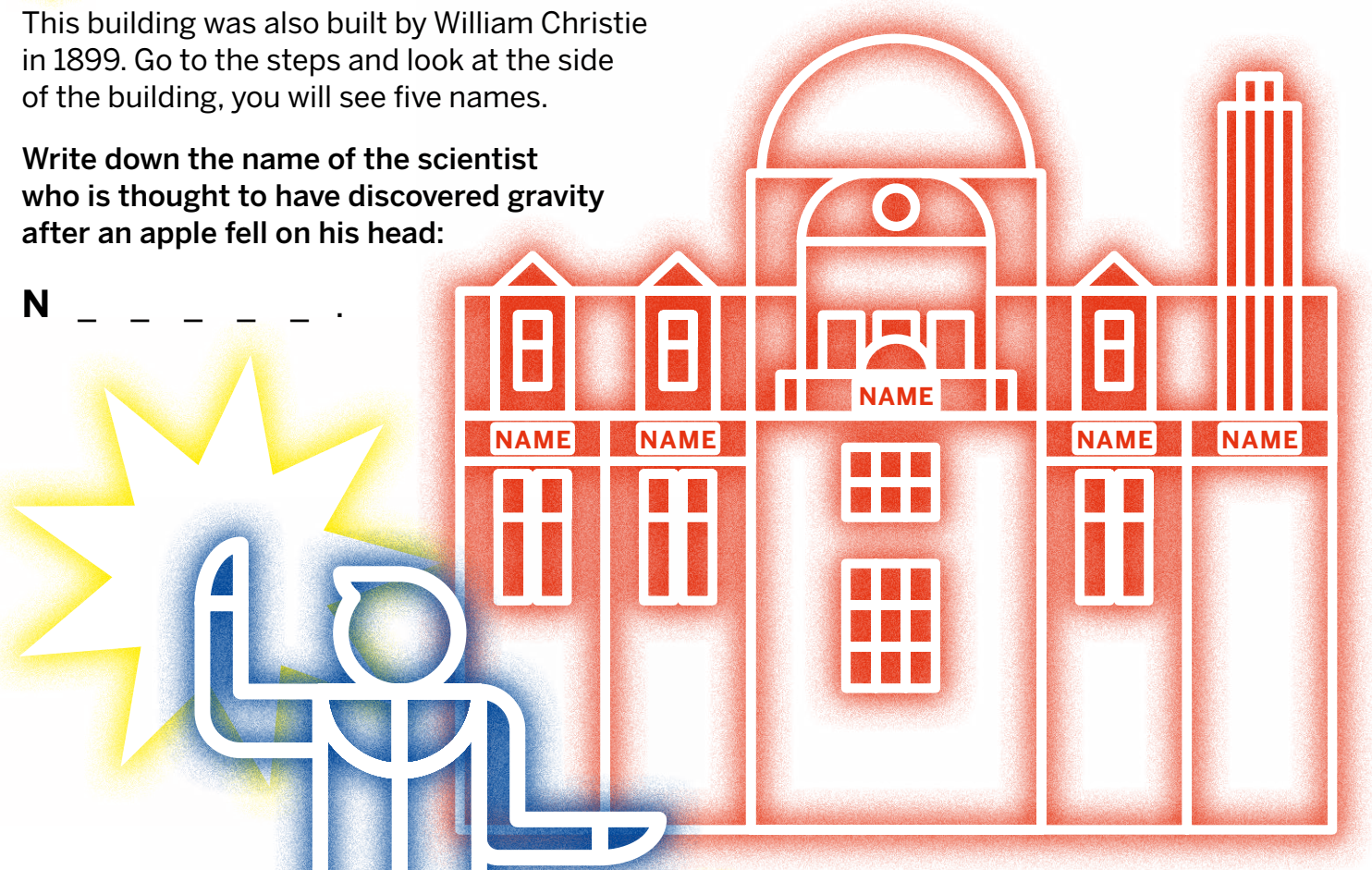

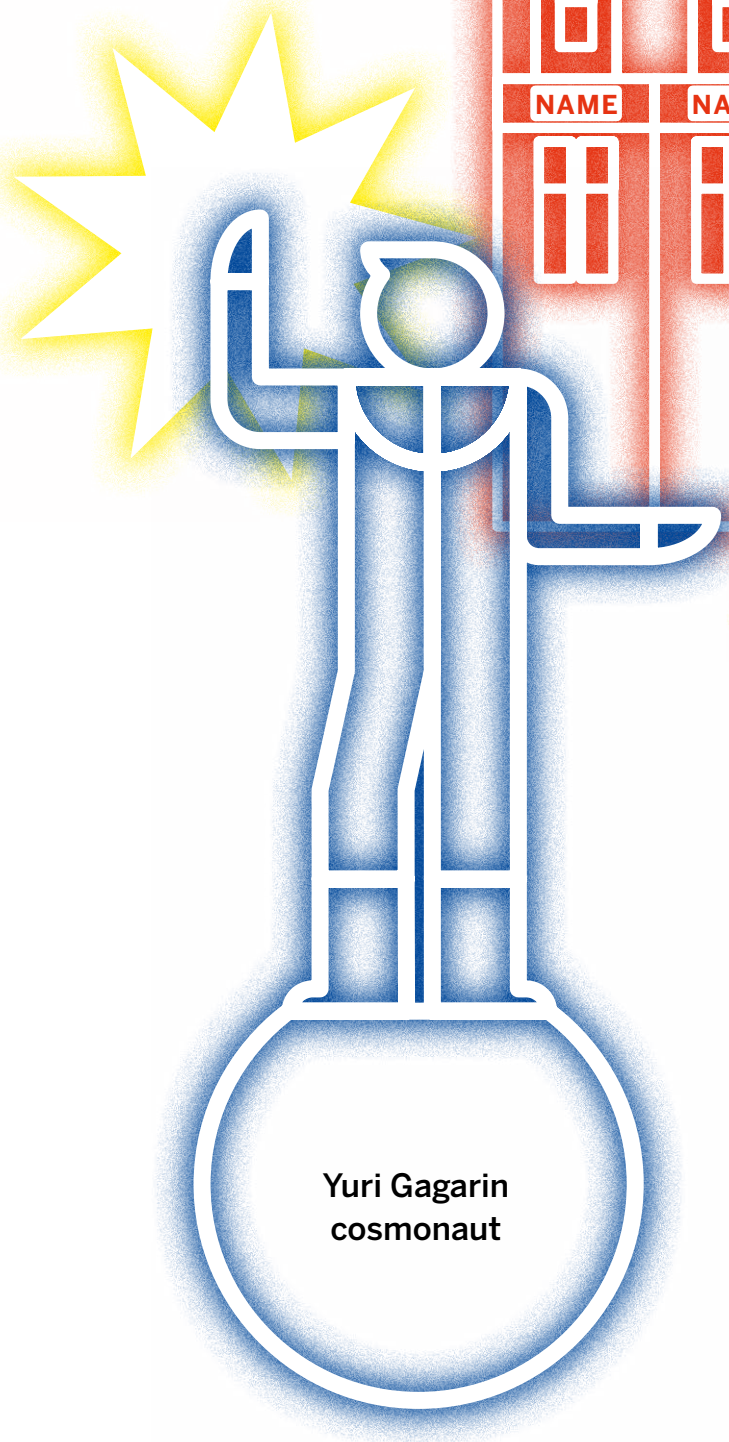

11

Count how many names you can find on the outside of the Astronomy Centre. Remember to count the name on the top of the entrance.

Also walk down the steps until you get to the statue of the cosmonaut (a Russian astronaut) and include his name. He was the first person to go into space in 1961.

There are ..... names.

If you could be an astronaut, what would you like to see?

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