

## **A VIEW of Eli Lilly – Content Guide**

A VIEW of Eli Lilly is a multimedia resource in support of the Applied GCSE for Science and the work related curriculum.

Eli Lilly is one of the world's largest research based pharmaceutical companies, employing more than 40,000 people worldwide. Opened in 1967, Erl Wood in Surrey was Lilly's first research and development site outside the United States and over 600 people now work there. As the company's European Centre of Excellence for neuroscience research the site hosts many scientists looking for new compounds to help treat psychiatric and neurological diseases.

The VIEW of Eli Lilly provides the young person with an opportunity to explore the Erl Wood site and better understand the application of science in a real business.

Upon entering the site the visitor can move towards the Erl Wood Manor House, finding out more about the history of the building and Eli Lilly as a company. Several senior staff can be interviewed at the Manor House including those with responsibility for Research, IT, Finance, HR, Patents, Corporate and Regulatory Affairs as well as the Managing Director.

Moving past the Manor House the visitor can access the laboratories. A corridor provides the means to explore 15 laboratories applying chemistry and biology to the objectives of the business. In each laboratory evidence can be found in the form of panoramic images, closer images, sequences, documents, audio interviews and short video sequences. These focus on the application of science, scientific processes, lab equipment and health and safety measures. The fifty interviews that can be found include; Research Chemists, Medicinal Chemists, Analytical Chemists, Computational Chemist, Biologist, .Electro-physiologist, Technician, Industrial placement student and others.

Exploration of Eli Lilly shows science at work and scientists at work. The work that is seen is organised towards the objective of scientific discovery. All of this is seen in the context of a multi-national company engaged in world wide research and development.

The evidence presented to the student can contribute to a better understanding of topics such as;

- Health and safety in the laboratory,
- The role of automation in scientific discovery,
- Waste management,
- Environmental issues,
- Ethical issues facing science today.
- Business and Enterprise.

The tour that follows allows you to visit every location available in a VIEW of Eli Lilly. You will move between all the panoramic images and are encouraged to look around at each position, to best review the workplace that is Eli Lilly.

If you do not wish to tour but rather establish what evidence is in each area or lab, then use this guide as a simple contents list.

At each panoramic image any extra evidence that is available for you to review, will be pointed out. This evidence will be in the form of;

Close up single images and sequences of images,  
Documents, posters, leaflets,  
Short video extracts,  
Interviews with a wide range of staff,

You can access evidence through hotspots on the panoramic images or through the timeline button.

You are reminded that whilst looking at a panoramic image you can use the SHIFT key on your keyboard to zoom in for a closer look and the CTRL key to zoom back out.

Remember to use the 'back' button to return from any evidence to the panoramic image, from where you can continue to move around the site.

The following instructions are a guide only and assume a basic understanding of how VIEW works.

If you are keen to move quickly to the operational areas at Eli Lilly then you can ignore the routes into the Manor House and quickly move past and towards the labs.

## **Welcome to a VIEW of Eli Lilly.**

Make sure that you have access to good quality audio, such as through a set of headphones.

You can download a copy of the maps at: [www.futurevu.com/Lilly.php](http://www.futurevu.com/Lilly.php) on which to make any notes as you tour. You will also find other activities for download that may be useful.

Click on 'enter' to begin your virtual tour.

The first single image is of the gate at the entrance to Eli Lilly's site at Erl Wood.

Click anywhere on the gate to move onto the site.

### **The Security gate and entrance to Eli Lilly**

Look around you,

Facing north,  
You will find a security guard at the gate and you can click on him for an interview.  
To the left of the security guard there is the pedestrian entrance to Eli Lilly.

Facing south,  
Is the exit from Eli Lilly.

Facing north,  
Click on the pedestrian entrance to enter the site.

### **Inside the Security gate and entrance to Eli Lilly**

Look around you.

Facing north,  
A road leads away and to the right towards the bottle gas yard and some new construction.

Facing north west  
The road leads towards the Manor House and the main Lab complex, which is where you will find the main points of interest on this tour.

Click on the road leading off north west, towards the Manor House.

## **Outside the south end of the Manor House – the car park.**

Look around you.

Facing north,  
is the route to the other end of the Manor House and the labs.

Facing west,  
You will meet Stacey, the Travel and Tours associate.

Facing south,  
You can return to the site security gate.

Facing south west, (to the right of the tree),  
You can click to find out more about the habitat for bats.  
At this point the timeline button appears and offers an interview with Sheila, an environmental advisor.

Facing north,  
You will find the entrance to the Manor House on the left,

Click on the entrance to the Manor House to move inside.

## **Inside the Manor House at the south end.**

Look around you.

Facing north west,  
Click on the picture frame to read about the Queen's Award.  
Under the frame you can click on the sign to find out more about what is happening at Eli Lilly today.

Facing north,  
Click on the sign to find out about a coming lecture.

Facing almost south,  
Click on a wall picture and find out about Eli Lilly, the man.

Facing south,  
Click on the wall pictures for a closer look at construction of the site.  
Click on the frame to the right of those pictures to see the 'shovel' !

Facing east,  
Click on the Manor House door to return to the car park.

## **Outside the south end of the Manor House – the car park.**

Facing north,  
Click to move towards the other end of the Manor House and towards the labs.

## **Outside the north end of the Manor House – Administration**

Look around you.

Facing north,  
You can proceed towards the labs.

Facing south,  
Returns you to the south end of the Manor House.

Facing just north of west,  
You can see the entrance to the stores.

Facing just south of west,  
You can see the entrance to the north end of the Manor House.

Click on the Manor House doors to move inside.

## **Inside the Manor House at the north end.**

Look around you.

Facing almost north,  
You can click on see the wall pictures more closely.

Facing south west,  
You can see a table with some brochures;

Click on the documents;  
- Location Map  
- Leading Scientists  
- Lilly in Europe  
- Lilly in the Community

...for a closer look, use the 'view images in more detail' button at the top of the screen.

Facing west  
You can see a black notice board with several departments listed.  
Click on any of these for an interview or closer look at their function.

Remember you can use the SHIFT key to zoom in and the CTRL key to zoom out, to help you read and select from the list.

You can interview;

- Ian, the HR Manager at Erl Wood.
- Josey and Emily in Finance
- Andy and Bert in IT
- Ian, Director of European Patent Operations.
- Dominique an Executive Director.
- Sue, an Executive Director
- Thirani, Clinical Development Associate.
- Colin, the Manager for Site Services
- Ian the Director of Research.

And ...

Take a look at the Erl Wood Conference facilities through some single images and text.

Don't forget to use the 'back' button to return to this point after an interview.

If you click on ...Managing Director

You will move to the **MD's Assistants room.**

Look around you.

Facing north,

You can click on Doreen, the MD's assistant, for an interview.

Click on the picture of Eli Lilly HQ on the wall.

A timeline here offers access to a page from the MD's appointment diary.

Facing north west,

Click on the microphone.

Click on the Surrey Wildlife Trust presentation on the wall.

Facing west,

You can see the door to return you to the entrance area of the Manor House, north.

Facing east,

You can click on the door to enter the MD's office.

Click on the MD's door and go in.

## **The Managing Director's office**

Look around you.

Facing north west,  
Click on the red document on the cabinet.

Facing north,  
Use the timeline to find an interview with Paul, the MD.

Facing east,  
Click on the display board for a closer look.  
Click on the Leadership poster for a closer look.  
Click on the keyboard on the table.

Facing south east,  
Click on the large screen.

Facing south,  
Click on the left hand glass trophy on the shelf.

Facing west  
Click on the door to leave the MD's room and return to the Assistant's room  
Click on the door to leave the Assistant's room and return to the Manor House north entrance area.

Facing north,  
Click on the doors to exit this area and return outside of the north end of the Manor House.

## **Outside the north end of the Manor House – Administration**

Facing west,  
Click to move into the stores.

### **The stores**

Look around this area.

Facing north,  
The timeline offers some examples of the materials stored in here.

Facing east,  
You can leave the stores and return outside.

Click east to exit the stores and return outside to the Manor House.

## **Outside the north end of the Manor House – Administration**

Facing north,  
[Click to move towards the labs.](#)

## **Outside the link lobby leading to the labs.**

Look around you.

Facing south,  
You can return to the Manor House.

Facing north,  
You can enter the doors of the link lobby.

[Click to move inside the link lobby.](#)

## **The Link Lobby**

Look around you.

Facing south,  
You can click on the doors to go outside of the link lobby.

Facing north,  
You can click on the journals for a closer look.

Facing south,  
You can click on Nikki for some audio information.

Facing south west,  
The timeline offers access to information about;

- Volunteer fire crews, and
- The 'Best place to work' award.

Facing north west,  
The timeline offers access to information about;

- changes to facilities, and
- Staff events and facilities.

Facing north,  
The timeline offers access to an interview with the team leader for the information centre.

Facing east,  
The timeline offers access to an interview with the Catering Manager.

Facing north east,  
You can click (just to the left of the food counter), to go around the corner towards the lab corridor.  
[Click to move into the lab corridor.](#)

### **The lab corridor, far west end**

Look around this area

Facing east,  
You can click to enter;

- Lab 1 - Analytical Chemistry 1
- Lab 2 - Medicinal Chemistry
- Lab 3 - Analytical Chemistry 2
- Lab 4 – Modeling

The timeline offers access to information about the drug development process.

Facing east,  
Click to move further eastwards down the corridor.

Facing south,  
Click to return to the Link Lobby.  
Click on the staff noticeboard for a closer look.

Facing east,  
[Click on lab 1 to go inside](#)

### **Lab 1**

Look around you.

Facing north,  
Click on the NMR controller cabinet on the left hand side, to see inside.  
The timeline offers access to an interview with Keith, the AT group Research Leader.

Facing north east,  
Click on the Fourier Transform Infra Red instrument on the bench for a series of images.

Facing east,  
Click on the smaller NMR instrument for a closer look.

The timeline offers access to a short video extract showing the NMR machine loading samples.

Facing south west,  
Click on the LCMS equipment to the right of the door for more information.

Facing north west,  
Click on the larger NMR machine for a series of images and a closer look.

Facing south west,  
[Click on the door to exit this lab.](#)

### **The lab corridor, far west end**

Facing east, click on lab 2 to go inside

### **Lab 2**

Look around this area

Facing east,  
The timeline offers access to a lab shower  
Click on the green first aid sign and the fire notice to the right of the door for further information.

Facing north east,  
Click on the posters for more information about waste management.

Facing south,  
Click on;  
- The orange warning triangle, and  
- The eye wash kit

Facing west,  
The timeline offers access to an interview with Martine, a Medicinal Research Chemist.

Facing east,  
[Click to move further into lab2](#)

Look around this area

Facing west,  
Click the grey cupboard (bottom left), to look inside

Facing north west,  
Click on the posters for more information.

Facing north east,  
Click on Manisha for an interview.  
Click on the air flow control above the scientist's head for more information.  
Click on the fume cupboard controls for more information.  
The timeline offers access to a series of images showing Manisha at work.

Facing west,  
Click on the bottles on the left hand side for more information.  
Click on the grey cupboard, (bottom right) to see inside.

Facing south east,  
Click on Nicolas for an interview.  
Click on the formulae written on the fume cupboard, for a closer look.  
The timeline offers access to a series of images showing Nicolas at work.

Facing south,  
Click on the papers on the right hand bench for graphical information.

Facing south west,  
Click on the papers pinned close to the electrical socket for the periodic table.

Facing west,  
Click west to move closer to the exit from this lab.

Facing north,  
Click north to exit this lab and return to the corridor.

### **The lab corridor, far west end**

Facing east, click on lab 3 to go inside

### **Lab 3**

Look around this area

Facing south east,  
The timeline offers access to images showing submitting a sample for purification.

Facing south,  
The timeline offers some information on equipment protection.

Facing south west,  
The timeline offers access to an interview with Marie, an Analytical Chemist.

Facing south,  
Click on the door to exit this lab and return to the lab corridor.

### **The lab corridor, far west end**

Facing east, click on lab 4 to go inside

### **Lab 4**

Look around this area

Facing south east,  
Click on Michael, a computational chemist, for an interview.  
Click on Michael's screen to see what his PC is doing.  
The timeline offers access to an interview with Sandra, a computational chemist.

Facing south west,  
Click on the left hand PC screen to find out how the computer can help the chemist with his work.

Facing north,  
Click on the door to exit this lab and return to the lab corridor.

### **The lab corridor, far west end**

Facing east, click to move further east down the lab corridor.

### **The lab corridor – west**

Look around you.

Facing west, click to enter;

- Lab 5 - Synthetic Technologies Group (1)
- Lab 6 - Synthetic Technologies Group (2)
- Lab 7 - Discovery Chemistry Synthesis Group

Click on the pictures on the wall on the left hand side for information about community activities.

Click here if you wish to move back towards the far west end of the Lab corridor.

Facing south east,  
You can click on Lab 8 – The sample management centre

Facing west, you can click on;  
Lab 9 - Bioinformatics and Molecular Biology  
And the noticeboard for information about scientific papers.

Click here if you wish to move further towards the east end of the lab corridor.

Facing west,  
Click on lab 5 to go inside.

## **Lab 5**

Look around you.

Facing north east,  
Click on the tap for further information.  
The timeline offers an image of the drying oven.

Facing east,  
Click on the shelf to see the filters.

Facing north,  
Click on the TECAN robot on the left hand side for closer images.

Facing south west,  
Click on Marcus, the student on placement at Eli Lilly, for an interview.

Facing west, click to move further inside the lab.

Facing south west, click on the fume cupboard for a series of images and more information.

The timeline offers access to Marcus demonstrating, through a series of images - rapid parallel synthesis sequence.

Facing east,  
Click to move closer to the exit from this lab

Facing north,  
Click the door to exit this lab and return to the lab corridor.

## **The lab corridor – west**

Facing west,  
[Click on lab 6 to go inside.](#)

### **Lab 6**

Look around this area

Facing south west,  
Click on the yellow cases for more information.

Facing east,  
The timeline offers two short video extracts;  
- a bar code reader, and  
- an automatic weighing machine.

Facing south east,  
The timeline offers access to a closer image of the spills trolley.

Facing south,  
[Click to move further into this lab.](#)

Look around this area

Facing south west,  
Click on Ian, a Chemist, for an interview.

The timeline offers access to a series of images showing the use of the evaporator.

Facing north,  
[Click to move towards the exit from this lab.](#)

Facing north,  
[Click to exit from this lab and return to the lab corridor.](#)

## **The lab corridor – west**

Facing north west,  
[Click on lab 7 to go inside.](#)

## Lab 7

Look around this area

Facing south west,  
Click on the large scale evaporator for more information,

Facing almost west,  
Click on

- the emergency shower, (above the exit door),
- the warning signs on the cupboard doors,
- the protective hoods above the shelves,
- the eyewash kit close to the sink,
- for closer images and more information.

Facing north,  
Click on the yellow spillage kit (bottom right), for a series of images and more information.

Facing north east,  
Click on the microwave reactors for a closer view.

Facing north west,  
Click on the bottles on the lower shelf for an image about hazard warning signs.

Facing south east,  
Click on the reactor for a series of images and closer views.  
The timeline offers an interview with Niall, a Research Chemist.

Facing south west,  
[Click on the door to exit this lab and return to the lab corridor.](#)

## The lab corridor – west

Facing south east,  
[Click on lab 8 to go inside.](#)

## Lab 8

Look around this area

Facing south,  
Click on Aderonke, the Sample Management Officer, for an interview

Facing west,  
Click on the trays for a series of images explaining the sample management process.

Facing north east,  
Click on the door to exit the room and return to the lab corridor.

### **The lab corridor – west**

Facing east,  
Click on lab 9 to go inside.

### **Lab 9**

Look around this area

Facing south east,  
Click on Peter, a Research scientist, for an interview.  
Click on Peter's PC screen to find out more about what he is doing.  
The timeline offers access to;

- Safety measures in the lab,
- The autoclave, and
- A radioisotope record sheet.

Facing south,  
Click on the door to enter the **Molecular Biology lab.**

Look around this area

Facing south west,  
Click on the gloves on the bench for more information.

Facing east,  
Click to move towards the other end of the lab.

Look around this area

Facing north east,  
Click on the two PCR machines on the bench.  
The timeline offers a series of images and information about amplifying DNA using a PCR machine.  
Click on the incubator to the left of the PCR machines for more information.

Facing south east,  
The timeline offer an interview with Non, a Research Pharmacologist,  
and an image series about copying DNA using bacteria.

Facing south west,  
On the bench, click on;  
- A balance and stirrer,  
- Pipettes and  
- A stirrer.

Facing north west,  
Click on the yellow waste container.

Facing north west,  
Click on the door to exit this lab into the office.

Facing north,  
Click on the door to exit this office into the lab corridor.

### **The lab corridor – west**

Facing east,  
Click to move further east down the lab corridor.

### **The lab corridor – east**

Look around this area

Facing west, click to enter;

Lab 10 – Protein Expression and Molecular Pharmacology Lab

### **Lab 10**

Look around this area

Facing south west,  
Click to go around the other side of the bench.

Facing north,  
The timeline offers access to a short video extract of a mixing machine.

Facing east,  
The timeline offers access to an interview with Suchira, a Research Scientist, and  
A series of images showing a scientist performing a protein assay.

Facing south east,  
Click near the hands of the scientists to see more of a protein identification process.  
The timeline offers access to a scientist using a fluorescence microscope.

Facing south,  
Click to the right of the scientists to move back around the other side of the lab, closer to the exit.

Facing south,  
Click on the door to exit this lab, back into the lab corridor.

### **The lab corridor – east**

Facing north east,  
click to enter Lab 11 – Tissue Culture

### **Lab 11**

The first image is a single image of the entrance to Lab 11  
The image is of Ruth, the team leader. Click towards Ruth's feet to see the use of overshoes.

Click to the left of Ruth (the door), to go into the main lab.

Look around this area

Facing north west,  
Click on Ruth for an interview with her, as Team Leader.

Facing west,  
Click on the left hand incubator to look inside.

Facing almost south west,  
Click on Sarah, a biologist, for an interview.  
Click on Liz, a biologist, for an interview.  
The timeline offers access to;  

- a series of images showing cell plating,
- a video extract showing cell counting by computer, and
- automating a process using a robot.

Facing east,  
Click to move out of this lab and return to the lab corridor.

### **The lab corridor – east**

Facing east,  
Click to enter Lab 12 – Electrophysiology

### **Lab 12**

Look around this area

Facing north east,  
Click on Tristan, an electrophysiologist, for an interview.

The timeline offers access to a series of images showing how the scientist measures and electrical signal.

Facing south,  
Click on the door to leave this lab and return to the lab corridor.

### **The lab corridor – east**

Facing east,  
click to enter Lab 13 – Calcium Imaging

### **Lab 13**

Look around this area

Facing west,  
Click on Lisa, a Research Scientist, for an interview.  
The timeline offers access to a series of images showing the calcium imaging process.

Facing north west,  
The timeline shows some a video extract of output from the computer

Facing north,  
Click on the door to exit this lab and return to the lab corridor.

## **The lab corridor – east**

Facing South

Click on any of the four offices for interviews;

- O1 – Mark, , In Vivo Research Leader
- O2 - Anne, Discovery Operations Manager
- O3 - Sandy, Biology Action Group Head
- O4 – Stephen, Biology Project Leader

Facing south east, click on the map for a closer look.

Facing south west, click on the poster for a closer look.

Facing east,

Click to move towards the far east end of the lab corridor.

## **The lab corridor, far east end**

Look around this area

Facing west,

Click to enter Lab 14 – Screening

## **Lab 14**

Look around this area

Facing north west,

Click on Helen, a member of the SAR Group, for an interview.

The timeline offers access to a series of images to show a calcium flux assay.

Facing west,

Click on Richard, a senior technician, for an interview.

Facing south,

The timeline offers access to some images of the use of an electronic pipette.

Facing east,

The timeline offers access to images showing the Biomek machine.

Facing north east,

Click on the door to leave this lab and return to the lab corridor.

## **The lab corridor, far east end**

Facing west,  
Click on Lab 15 to enter Histopathology

### **Lab 15**

Look around this area

Facing south east,  
Click on Michael, a scientist, for an interview.  
The timeline offers access to

- a series of images showing how the scientists obtain and stain tissue cells.
- A video extract showing slicing thin sections of tissue.

Facing almost south,  
The timeline offers access to an image showing how health and safety impacts on the scientist's work.

Facing east,  
Click on the door to enter the adjacent lab.

Look around this area

Facing south,  
Click on Mark, a senior technician, for an interview.

Facing north west,  
Click on the PC screen for a closer look.  
Click on the door to exit this room back into the main lab.

In the main lab, facing west,  
Click towards the door to move into an adjacent room.

Look around this area

Facing north east,  
Click on the PC screen to find out more about analysing tissue samples.

Facing south,  
Click on the open door to exit this room and return to the main lab.

Facing south,  
Click on the door to exit this lab and return to the lab corridor.

## **The lab corridor, far east end**

Facing east, click on the display graphics for a closer look.

Facing west,

Click forward three times to move back to the far west end of the lab corridor.

Facing south,

Click to move back into the link lobby.

Facing south,

Click the doors to move back outside the link lobby.

Facing south,

Click to move back towards the Manor House.

Facing south,

Click to move back towards the Manor House entrance south.

Facing south,

Click to move back towards the security gate.

## **The Security gate and entrance to Eli Lilly**

Facing north,

Click the road leading right towards engineering and the storage area.

## **Storage area**

Look around this area.

Facing west,

Click to move forward to see some construction at Eli Lilly.

## **Construction at Eli Lilly**

Look around this area.

Facing west,

Click for interviews with;

- Richard - an engineering manager
- Alex - Project Engineering Group Leader

## **End of tour.**