

# Ballymun Engineering Trail

Trail Starts and ends at Ecostore, Ballymun



## The Rediscovery Centre

Leading change from waste to resource through reuse, redesign, research and education

The Rediscovery Centre brings together the skills and expertise of scientists, designers, business managers and craftsmen united in a common purpose of sustainability through resource efficiency and life cycle design. Our aims are to divert waste from landfill, provide community employment and training and inspire sustainable living. We achieve this by developing social enterprises which use waste and unwanted materials as a resource and raw material for new product design. Our operational processes and programmes provide workplace skills training and development for unemployed people, graduates and the community. Our public training courses, demonstrations and educational activities highlight the benefits of effective resource management and encourage everyone to REDISCOVER the value of waste.

Our current projects include:

- Rediscover Fashion
- Rediscover Furniture
- Rediscover Cycling
- Rediscover Paint
- Ecostore
- Education & Research Programmes

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# Ballymun Engineering Trail

Trail starts and ends at The Rediscovery Centre Ecostore, Ballymun.

## 1. Ecostore

The Rediscovery Centre uses waste materials to create new products. If you don't reuse or recycle your waste it ends up at a



site. These sites are designed, constructed and monitored by environmental engineers.

## 2 Tower Block

This tower block, along with 6 others, was designed and constructed by engineers in the 1960s. This is the only tower block left standing today and it is scheduled for demolition in 2014.

**Q: If each storey is 10 feet (3.5 meters) high, how high is the entire building?**

## 3 Swimming Pool

Chemical engineers have designed ways to keep pools clean and safe by circulating the water through a filtering system and adding chemicals to clean the water.

**Q: Can you name a chemical that is added to pool water?**

## 4 Street Lights

Did you know that street lights are designed to come on when it reaches a certain level of darkness – no-one has to flip a switch to turn them on! This is due to the presence of photo resistors in the lamps which are designed by electrical engineers.

**Count how many street lamps you pass between stations 3 and 5.**

## 5 Insulated houses

Environmental engineers think of ways to save energy. Insulation is used in most houses to retain heat and cut down on heating expenses. Insulation is found in between walls and in attics where it acts as a barrier to stop the heat from escaping through the walls and roof.

**Q: The following materials can be used as insulation.**

**Rate them 1-5 with 1 being the best.**

- Fibreglass    Denim    Cardboard  
 Polystyrene    Straw

## 6 Renewable energy

These buildings use solar panels to obtain energy from the sun. The panels contain photovoltaic cells to transform the sun's energy into electricity that we can use. The sun is a good source of renewable energy.

**Q: What is renewable energy and can you think of other sources of it?**

## 7 Coutry Park

Mechanical Engineers design machinery with moving parts and they often use springs in their designs. Springs work by storing energy when compressed and releasing energy when pressure is removed. There are springs used in the playground.

**Q: How many springs can you see?**

**Q: What else are springs used in?**

## 8 Boiler House

This boiler house, which was built in the 1960s by building services engineers, supplied heating and water to over 2,800 families around Ballymun. It was the largest and most modern mass heating system in Ireland at the time.

**Q: Given that the boiler house without the chimney is 20 feet tall, how tall do you think the chimney is?**

- 95 feet    165 feet    265 feet

**Draw a sketch of the boiler house in the box below.**

## 9 How high is a tree?

Read the plaques at the foot of these trees to find out why they were planted. Try to measure one of the trees by bending over and looking at the tree through your legs. Walk away until you can just see the bottom and top of the tree. The distance from where you are standing to the tree is the same as the height of the tree.

**Q: How high is the tree in paces?**

## 10 Look for a safe place...

Engineers have helped to design different methods to help manage traffic and pedestrians to keep them safe.

**What device, designed by electrical engineers, help keep pedestrians safe at this crossing?**