Crucible

A Bible resource for use with small groups based on the history of Steelmaking in Sheffield.
What is Unlock?

Unlock, by various names, has been around for over 30 years trying to help (mainly) urban Christians to understand and share their faith appropriately. We are especially concerned with communication in a traditional tabloid (non-book) culture. As well as maintaining our team of workers, we publish a variety of resources and can provide training for group leaders.

Our approach is to take people’s own experience and/or context as the ‘text’. Everyone can speak with authority about their own experience or context. These texts are already ‘stored’ in their, or their community’s, memory. They do not have to be learned, they are already familiar. But they can be explored, compared to other ‘texts’ including stories in the Bible, critiqued, and learning drawn from them, which can be applied.

In other words, we can learn about our faith simply by:
1. sharing stories from our own everyday experience and
2. relating them to the stories in the Bible and
3. deciding what to do about it
4. then taking action and
5. sharing stories of the actions we have taken and so on . . . .

Our life experience matters; our stories; our joys and sorrows. The Bible has plenty to say - more than we’ll ever know - about our lives if we know how to read it and apply it...if we know how to UNLOCK it!

This material aims to:
Let people reflect on the links between their own stories and the process of steelmaking and the stories in the Bible. It is particularly suited for a small group who are not in a traditional church setting.

This material will not:
Provide black and white answers to how we should respond to Biblical texts. It is best used as a guide to help on the journey of exploring possible solutions through telling stories, relating them to the Bible and responding to them individually and together.
Ground rules for participants:
The first session should set out some “ground rules” for the discussions, to let people know what will happen in them and how they are expected to contribute. Decide these together so everyone can have a sense of ownership as to how the group is run. Some examples are as follows:

* Everyone will contribute as much or as little of their personal stories that they are comfortable with.

* Everything said during these sessions will stay within the group and be treated as confidential, whether it’s someone’s personal story or opinion.

* People can opt out of exercises, without having to give a reason for it.

* Most discussions will be “unfinished” and be interrupted after short periods of time. This is as it should be, since the aim is to start discussions, not finish them.

* There are no “right” or “wrong” answers or opinions, and those who perhaps have more in-depth knowledge of the Bible should feel free to contribute to the discussions with “facts” provided they know that those comments are not more valid than other opinions expressed in the group.
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If you have any queries relating to Unlock materials, please contact:

Unlock
Handsworth Parish Centre
Handsworth Road
Handsworth
Sheffield S13 9BZ

01142 939060
office@unlock-urban.org.uk
The traditional method of Bible study

The majority of bible studies start with
And moves onto an analysis of the
text and the deduction of general
Finally, there is encouragement to
apply this to life

"There was once a .." "The good Samaritan
helped his neighbour…” "We must help .."

This style provides a framework, within which the person can store the
information in his/her mind, in note form or on disc) for retrieval when it is
needed. This requires a way of thinking and communicating which is based
on book and lecture methods of learning; it is not the appropriate method for

Unlock’s method of Bible study

Unlocking real life stories of
urban people
Unlock’s methods begin with a
group of people sharing their real life
experiences. Unlock’s materials
suggest different things that will help
this to happen - for example, a few
questions, a game or a video clip.

... leading to more
experiences to be
unlocked!

Revealing Good News of the
Down to Earth Christ
These real life stories are compared
with similar situations in the Bible
Unlock materials provide Bible
passages on individual pages, that can
be photocopied for use with a group.

Releasing life changing skills and confidence
Change happens as a result of linking real life experiences
with the Bible -
“We learn it now and we learn it for life.”
The individuals and groups involved change, and there is
often action among those around them.
Unlocking real life stories of urban people
Revealing Good News of the Down to Earth Christ
Releasing life changing skills and confidence

Steel and the scrap heap

• What do you understand by the word crucible?
• What was the first thing that came into your mind when you heard ‘crucible’?
• Briefly discuss this understanding of crucible.
Benjamin Huntsman was born on the 4th June 1704 at Epworth in Lincolnshire, the year after John Wesley was born, also in Epworth. His parents were German and his Father was a Quaker farmer.

His working life started as a clock, lock and toolmaker in Doncaster. He soon built up a reputation as having a wide scientific knowledge and being a very skilled craftsman. He became dissatisfied with the quality of steel available for his clock springs and other important items and started to experiment in trying to make better quality steel, initially at Doncaster, but later at Handsworth in Sheffield. He moved to Handsworth in 1740 for the cheaper fuel available. He later moved to Attercliffe where he built his factory producing ‘crucible steel’. And Sheffield’s reputation as a steelmaking centre had begun as Huntsman produced the first cast steel in the world.

Many other companies were established and the invention of the Bessemer Converter a hundred years later, by Henry Bessemer, made Sheffield the centre of the world for steelmaking.
The crucible has been a central symbol of the drama and the awesome power involved in the process. The modern process in the Sheffield and Rotherham areas involve large electric arc furnaces.

The steelmaking process is about transformation. If the scrap and the final steel are examined under the microscope the transformation can be seen. The material has been transformed and made new - so let's start the journey from the scrap heap.

**On the scrap heap**

The modern steelmaking process involves the melting of scrap. There are many companies in South Yorkshire that just buy and grade and then sell scrap. It comes from old cars, the
outer parts of cookers and washing machines etc. It also comes from recycling steel from other parts of the steelworks.

Every steelworks will have a scrap department, where scrap is sorted for the melting shops. There are literally hundreds of different types of scrap, so they have to be handled very carefully.

- Have you ever felt that you were on the scrap heap?
- Have other people you know felt that they were on the scrap heap?
- What were the reasons?
- What does it feel like to be there?
- Have you had an experience of being removed from the scrap heap?
- What made the difference?

**Revealing** Good news of the Down to Earth Christ ...

Have a look at one or both of these texts from the Bible.

*Psalm 113: 7 & 8* He (God) raises the poor from the dust and lifts the needy from the ash heap; he seats them with princes, with the princes of their people.

The truer translation of the ash heap is the dung heap.

- What might the dung heap be today?

*Mark 1:40-42* A man with leprosy came to Jesus and begged him on his knees, ‘If you are willing, you can make me clean.’ Filled with compassion, Jesus reached out his hand and touched the man.
‘I am willing,’ he said. ‘Be clean!’ Immediately the leprosy left him and he was cured.

- What was Jesus’ reaction and response?
- Who are the ‘lepers’ of today?
- How might they be removed from the scrap heap?
- What might our reaction and response be?

**Releasing life changing skills and confidence...**
- Has our discussion helped you look at yourself or others being on the scrap heap differently?
- Has it changed the way you think?
- Will it change the way we act?
- How?

‘dung-heap’ by Sten Porse, via Wikimedia Commons
Into the Melting Shop

The process involves melting the weighed scrap, producing various slags to refine the steel and when the refining process is completed the molten steel is emptied from the furnace and transferred to a ladle, something like a large bucket, lined with bricks that can stand very high temperatures. From the ladle the steel is either fed into a continuous casting process or is cast into ingots (large blocks of steel) or into moulds producing various components.

The steelmaking process is a complex one but put very simply it is about controlling the steel, both physically and chemically. Once the steel is completely melted various samples of the steel are taken at various stages of the refining process and the chemical analysis is rapidly obtained. The time from taking
out the sample to receiving the full analysis is only a few minutes.

Depending on the analysis the refining process is adjusted by the slag control. The slag is a layer of molten chemical constituents on top of the steel, produced by limestone, or iron ore (oxide), or fluorspar etc. Oxygen may be blown through the steel to adjust the carbon and other elements. This “oxygen blow” used to cause the bright orange smoke coming from the melting shop roofs and dirtying the washing that was hanging from the nearby washing lines.

When the steel is ready the teeming and casting happens.
Have a look at these words from the Bible.

**Malachi 3: 2-4**  “But who will be able to endure it when he comes? Who will be able to stand and face him when he appears? For he will be like a blazing fire that refines metal, or like a strong soap that bleaches clothes. He will sit like a refiner of silver, burning away the dross. He will purify the Levites, refining them like gold and silver, so that they may once again offer acceptable sacrifices to the Lord. Then once more the Lord will accept the offerings brought to him by the people of Judah and Jerusalem, as he did in the past.

**Romans 12:1-2**  And so, dear brothers and sisters, I plead with you to give your bodies to God because of all he has done for you. Let them be a living and holy sacrifice—the kind he will find acceptable. This is truly the way to worship him. Don’t copy the behaviour and customs of this world, but let God transform you into a new person by changing the way you think. Then you will learn to know God’s will for you, which is good and pleasing and perfect.

**Releasing life changing skills and confidence...**

- Can you see how you have been through the fire?
- In what ways has this changed you?
• Is the change and transformation a one off process or does it continue?
• How?
• Have there been times of significant transformation in your life?
• If so how has it happened?
• What sort of differences has it made?
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Ladling, Teeming and Casting Aside

From the melting shop, the molten steel is either fed into a continuous casting process or is cast into ingots (large blocks of steel) or into moulds producing various components.

The steel melting and refining process is a complex process that needs a high degree of skill and care. In a similar way the teeming and casting stage is a skilled part of the whole process and is one of the most dangerous. Molten steel at a temperature of more than 1,600°C, needs to be kept under control at all times. Whether the process is continuous casting, the production of ingots of various sizes, or components casting, great care and control is necessary.

Sheffield Forgemasters © David Chang
The production process then continues beyond the melting shop into the finishing sections, or to the various rolling mills, or forges.

This teeming and casting aside gives the moulding and shaping to the steel, to make it suitable for the next stage. The next stages make the steel suitable for purpose.

The pouring of the steel into the ladle is one of the most awe-inspiring sights in industry with up to 150 tons of molten steel being transferred to the ladle, with the fire, flames, sparks and smoke. The sense of power and danger are always there, as well as the sense of powerful creative force.

- Have you seen a furnace being “tapped”?
- If not have a look at the accompanying photos?
- In what ways have you been moulded and shaped?
- Has it sometimes been through fire, through difficulties and crises?
- In what ways?

The Holy Spirit came in power and force, to create the church, and it is the Holy Spirit that gives the church a continuing sustenance. It also makes disciples suitable for purpose, through the gifts that it brings to their communities.

**Revealing Good news of the Down to Earth Christ ...**

Divide the group into two’s or three’s and give each group one of the Bible extracts below to read. (Discretely ensure there is at least one person in each group who is comfortable reading aloud, if this is not the case be prepared to select and read out just one or two of the readings yourself.)
Matthew 3:1  "I baptize with water those who repent of their sins and turn to God. But someone is coming soon who is greater than I am—so much greater that I'm not worthy even to be his slave and carry his sandals. He will baptize you with the Holy Spirit and with fire."

Mark 1:7 & 8  John announced: "Someone is coming soon who is greater than I am—so much greater that I'm not even worthy to stoop down like a slave and untie the straps of his sandals. I baptize you with water, but he will baptize you with the Holy Spirit!"

Luke 3:15 & 16  Everyone was expecting the Messiah to come soon, and they were eager to know whether John might be the Messiah. John answered their questions by saying, "I baptize you with water; but someone is coming soon who is greater than I am—so much greater that I'm not even worthy to be his slave and untie the straps of his sandals. He will baptize you with the Holy Spirit and with fire."

John 1:32 & 33  Then John testified, "I saw the Holy Spirit descending like a dove from heaven and resting upon him. I didn’t know he was the one, but when God sent me to baptize with water, he told me, 'The one on whom you see the Spirit descend and rest is the one who will baptize with the Holy Spirit.'"
After reading the text, still in groups, look at the following questions:-

- Are there words that describe what John the Baptist felt about Jesus?
- Are there words that describe what John the Baptist felt about the Holy Spirit?
- What does the Holy Spirit mean to you?

Come together to form the larger group and share some of your thoughts and findings.

- Share briefly the three questions above?
- What do you think is meant by being baptized by the Holy Spirit and fire?
- What difference do you think it might make?

**Releasing life changing skills and confidence...**

Has our discussion altered the way we might have answered the following two questions?

- In what ways have you been moulded and shaped?
- Has it sometimes been through fire, through difficulties and crises?
- In what ways?
- In what ways has our discussion changed the way we understand and experience the Holy Spirit?

Perhaps you could use your creative side to express what the Holy Spirit means to you. Using paints or pastels, or clay, or by making a collage, have a go at this creative way of communication (see appendix for an idea to develop this activity further*). Remember you can share this with others, but equally it can be your own expression and yours alone.
Session 4

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Releasing life changing skills and confidence

4a Rolling, forging and hammering.

Unlocking real life stories of urban people ...

These stages move the steelmaking process on to shape and strengthen the steel. The blocks of steel, called ingots or blooms, may be squeezed through the rolls to make the cross section smaller. It may pass through several rolls each with a different size, each “pass” making the steel smaller in section and obviously much longer.

The steel may be hammered or pressed down by a hydraulic press, also known as a forge. A blacksmith shapes the steel on the anvil, using various types of hammers.

Corus Redcar Steelworks at Night, http://creativecommons.org/licenses/by/2.0/
In these processes the steel is shaped to requirements and it is strengthened by the process. The pressing through the rolls and the pressing or hammering in a forge or on the anvil has made the steel stronger.

- Have you ever felt squeezed into places or situations you’d rather not go?
- Have you felt pressed down with so much on top of you?
- Have you ever felt bashed and beaten - not necessarily physically?
- What has happened in your life that has made you stronger?

Revealing Good news of the Down to Earth Christ ...

Shaping and Strengthening
• What do the following words say to you about suffering, shaping and strengthening?

1 Peter 1:3-7  All praise to God, the Father of our Lord Jesus Christ. It is by his great mercy that we have been born again, because God raised Jesus Christ from the dead. Now we live with great expectation, and we have a priceless inheritance—an inheritance that is kept in heaven for you, pure and undefiled, beyond the reach of change and decay. And through your faith, God is protecting you by his power until you receive this salvation, which is ready to be revealed on the last day for all to see. So be truly glad. There is wonderful joy ahead, even though you have to endure many trials for a little while. These trials will show that your faith is genuine. It is being tested as fire tests and purifies gold—though your faith is far more precious than mere gold. So when your faith remains strong through many trials, it will bring you much praise and glory and honour on the day when Jesus Christ is revealed to the whole world.

Romans 5:1-5  Therefore, since we have been made right in God’s sight by faith, we have peace with God because of what Jesus Christ our Lord has done for us. Because of our faith, Christ has brought us into this place of undeserved privilege where we now stand, and we confidently and joyfully look forward to sharing God’s glory. We can rejoice, too, when we run into problems and trials, for we know that they help us develop endurance. And endurance develops
strength of character, and character strengthens our confident hope of salvation. And this hope will not lead to disappointment. For we know how dearly God loves us, because he has given us the Holy Spirit to fill our hearts with his love.

Releasing life changing skills and confidence...

- How do you want to respond?
- Has this discussion changed the way we think about suffering, shaping and strengthening?
- How might it change way you see the Bible?
- How might it change the way that you behave?

4b Conclusion

We have worked our way through the steelmaking process from the scrap to furnace, through the teeming and casting stages and finally to the finishing in the rolling mills, forges or hammers.

In a similar way we have worked through the transformation process of the Christian Faith, from the scrap heap, the dung heap or the pile of (s)crap that can be people’s lives - to the
change and transformation process needed for the journey of life and faith.

This is in many ways only the start. The rolled and forged steel has to be machined or treated further to make it fit for a particular purpose. In the same way our journey as followers of Jesus is never complete. We are always in the change process, continually shaped, strengthened and made fit for purpose by God through the Holy Spirit.

Unlocking real life stories of urban people
Revealing Good News of the Down to Earth Christ
Releasing life changing skills and confidence

‘Crucible’ was developed by Steve Millwood, Unlock Sheffield Field Worker.
www.unlock-urban.org.uk
Appendix: - additional resource and activity ideas.
Pick out what you think will work with your group.

Session 1
*Crucible*
- The Crucible for Silver from Delirious? Album The Cutting Edge Disc 1 1997 (maybe too much mention of Jesus for a new unchurched group?)
- On Fire from Switch Foot album The Beautiful Let Down 2005
  [http://www.youtube.com/watch?v=Q81yI6M95TE](http://www.youtube.com/watch?v=Q81yI6M95TE)

*Scrap Heap*
- Robots film 2005 20th Century Fox. The whole film is about out dated models of robots fighting not to go on the scrap heap. Choose a clip.
- Fix you from Cold play’s album X&Y 2005 also available to download for free on their 2009 album leftrightleftrightleftright
  [http://lrlrl.coldplay.com/leftright.html](http://lrlrl.coldplay.com/leftright.html)
- Activity - Place a waste bin, or recycling bin, in the middle of the group throughout the session. At the beginning you could ask ‘What parts of your life have felt like you were in there?’ (This could be a recycling bin with clean (and not sharp!) recycling waste in it - then participants could look through the bin bag, at the end of the session (in releasing life changing skills) for something that they could take off the scrap heap - that they or someone they know might have a use for, or use things from the bin to make a piece of art - sculpture or collage)

- Or - use a small compost or recycling bin and ask participants to write on paper, the part of their life that felt like it was in the bin, (i.e. rubbish or unvalued) and put the paper pieces into the bin. Followed, at the end of the session, by an opportunity to reclaim any items from bin and reflect on anything that has turned out to be useful from that experience of feeling rubbish or unvalued, that didn't seem useful at the time.

Session 2
Into the Melting pot
- these could be at beginning for unlocking stories or at end for releasing skills...

- Food - this session could start or finish with a fondue meal or a chocolate fountain to go with the melting things theme!
- Changes from David Bowie Album Best of Bowie 2002 or at
• God Put a Smile on Your Face from Cold Play album A Rush of Blood to the Head 2002
• Girl on Fire from Sarah Masen’s album The Dreamlife of Angels 2001
• A before & after sequence from any super hero with a costume film - i.e. Superman going from Clark Kent to Superman suit in phone box, or a wonder woman spin. [http://www.youtube.com/watch?v=3ZCbF_eOTw4](http://www.youtube.com/watch?v=3ZCbF_eOTw4) (from 1 min & 59 seconds into this there is a minute of wonder woman transformation spins!)

**Session 3**

• Play a ‘hot potatoes’ game - you need a timer with an alarm and a potato. The group agrees a forfeit and the one holding (or dropping) the potato when the alarm goes off has to do the forfeit.
• The last activity in session 3* (on page 18) could be developed into a prayerful activity, so the piece of art could become an invitation to the Holy Spirit to use that person’s gifts and to fill them.

**Session 4**

- for the Rolling Forging and Hammering Section

• Here Comes the Rain Again from Eurythmics Album Greatest Hits 1991 see [http://www.last.fm/music/Eurythmics/_/Here+Comes+the+Rain+Again](http://www.last.fm/music/Eurythmics/_/Here+Comes+the+Rain+Again) for 2 versions the studio track from the album or the more reflective acoustic version on the video
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