



## Work Experience

# Always a Winner

I completed the virtual White Rose Physics Work Experience programme. I found out about this opportunity through the sixth form bulletin. The programme lasted a week, and we were able to speak to professors of Physics from the University of Leeds, York and Sheffield. We completed an academic poster after talking to a professor which specialised in the field of our poster. My poster was on LCDs. We conducted our own research and spoke to the professors in order to ask questions about the field of study. The programme also allowed for us to explore careers we could do with a Physics A level and a physics degree. There were opportunities to complete tasks of degree standard such as answering mechanics problems. The event was very informative and allowed me to explore the opportunities available to me and I would recommend completing such work experience programmes to affirm your passions.

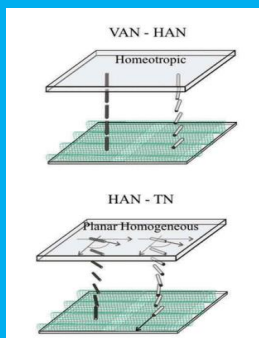
**Louisa Brearley 13C1**

The Sixth Form bulletin is issued every Friday and is emailed to all students and parents. Each week it is packed with useful information for our sixth form students.

### Where is next for LCDs? By Louisa Brearley

#### What are LCDs?

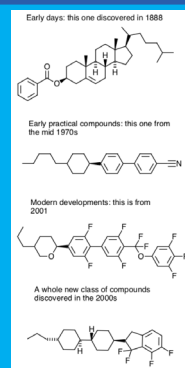
LCDs are defined as a display of information on a screen, which uses liquid crystals that become visible when electricity is passed through them. LCD is an abbreviation for liquid crystal display.



#### Uses of LCDs in replacing cathode ray tubes for medical imaging

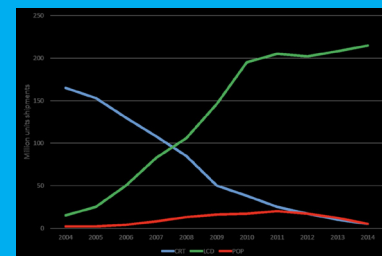
LCDs are being shown to be useful in cathode ray tubes as LCD technology is significantly improving. However, there are some problems with LCDs for this application as they are unable to detect subtle clinical diagnosis such as mammography. As seen in the diagram to the right, the green line represents the use of LCDs in cathode ray tubes and how it has become more popular in recent years.

References:  
<https://www.collinsdictionary.com/dictionary/english/lcd>  
<https://drive.google.com/drive/folders/1Nc3mmDnwzDHQoWLET8Xl72n50kcSA-H>  
<https://chemistry.stackexchange.com/questions/22014/what-type-of-organic-substance-is-used-in-lcd>  
<http://europepmc.org/backend/ptpmcrender.fcgi?accid=PMC3046712&blobtype=pdf>  
[https://www.researchgate.net/publication/319006213\\_Sticky\\_Transformation\\_How\\_path\\_dependencies\\_in\\_socio-technical\\_regimes\\_are\\_impeding\\_the\\_transformation\\_to\\_a\\_Green\\_Economy#pf8](https://www.researchgate.net/publication/319006213_Sticky_Transformation_How_path_dependencies_in_socio-technical_regimes_are_impeding_the_transformation_to_a_Green_Economy#pf8)



#### Diagram Explanation:

This is VAN operation using a grating opposite a homeotropic surface and TN operation when opposite a planar homogenous surface. TN geometry offers huge benefits such as a higher cell gap, achromatic performance and wide-viewing angles for the HAN state. Grating pitches of between 0.6  $\mu\text{m}$  and 1.0  $\mu\text{m}$ . The deep structures gave high optical form-birefringence at these pitches especially at the dark-state and contrast ratio when the polarisers are set at 45° to the grooves as required for the HAN white state. Operating in the TN mode allowed for the polarisers to be set parallel and perpendicular to the grating.



- LCDs are usually rigid rod-like molecules that tend to show some form of intermolecular order.
- LCDs have a range of uses from contact lenses to televisions
- LCDs are rapidly replacing cathode ray tube displays for medical imaging.

# Department Focus - Economics

We were delighted to see so many of our students succeeded in their exam results from the summer of 2021. A number of our Year 13s from last year have started Economics or Business related courses, ranging from Accounting, Accounting and Finance, Business with HR Management, and Economics to Football Business and Finance. Our congratulations to them all!

The Financial Times Student Advocate Work Experience will once again be offered through the Economics department after not being available last year. Our student advocate will be coming from Year 12. In a nutshell, "Student Advocates will develop leadership skills and confidence by representing the views of students to the FT and promoting the advantages of reading the FT to their friends and teachers", and so our advocate will be well placed to stretch their subject knowledge, develop their transferable skills and add to their CVs and Personal Statements.

The placement runs from October 2021 to April 2022 with a recommended undertaking of 4 hours per month.

As a reminder, or new information for our Year 12 students in particular, there is a wealth of information available (no subscription required) from the **Financial Times for Schools**. Sign up is required to



access the free resources.

Click on the icon from the link to the library page <https://libraryheckgrammar.co.uk/>

This should be of particular interest to students of Economics, Business, Politics, Geography and History - I am sure for many other students too. EPQ students might also find this useful. Teachers – this is also open to you!

Our Year 12 students have recently completed their baseline assessments, whilst the Year 13 students have refreshed their understanding with AS assessments.

All our students are encouraged to use their independent study time wisely and to read around the subject. This is not too difficult in Economics as there a number of ready to go sources available on-line. On the bus, at home, or any free time we recommend Theme specific links here from twitter, in addition to their usual google searches – they are full of up-to-date examples and suggestions from across the world:

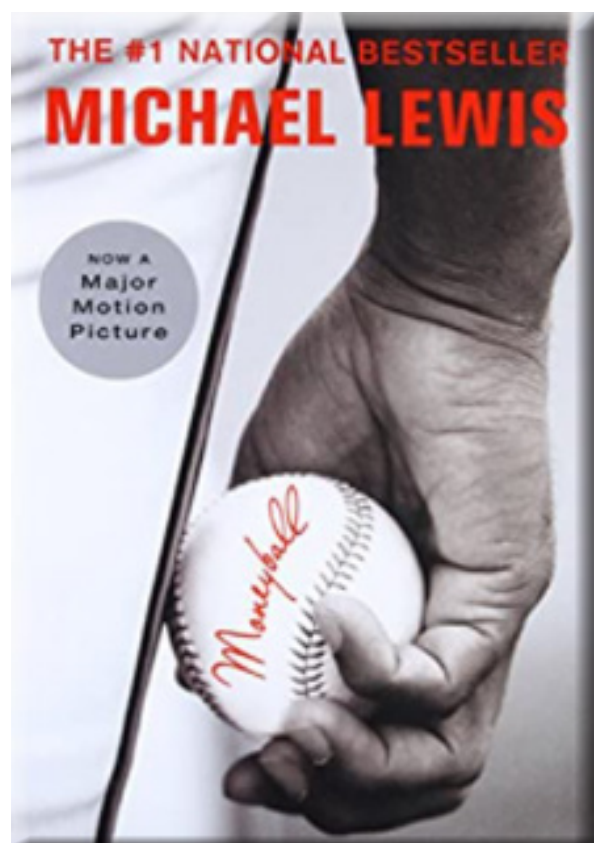
[#econ1](#) [#econ2](#) [#econ3](#) [#econ4](#)

(also

<https://twitter.com/ft4s>)

Current economic news stories which seem likely to run for a while (and therefore our students need to keep an eye on). These include the various shortages of products on our supermarket shelves, the (rational or irrational) behaviour of consumers "panic-buying", energy firms collapsing (think short-run close down point Theme 3 Economists), increasing inflation and the prospect of UK government closing trade deals since Brexit became a reality. Lastly, as part of our literacy drive, can I recommend "Moneyball: The Art of Winning an Unfair Game" by Michael Lewis. I ordered my copy earlier this month, but am still awaiting delivery – could it be that the delay has something to do with labour markets?

Mr Beecher



# Parent Notices

**Tuesday 5 October - Year 10 Parents' Information Evening**

**Thursday 7 October - Year 8 Parents' Information Evening**

**Thursday 14 - Saturday 16 October**

**Silver DofE Students Expedition**

**All students are now required to wear a facemask around school.  
Please ensure that you send you child with the appropriate face covering. School have a very limited stock.**

**In attempt to reduce the spread of covid 19 we are asking families to continue with the twice weekly lateral flow tests and to report ALL results via the school website.**

## Oooo to be a Terrier



Helena Forbes, year 7, has been selected to play in Huddersfield Town Women's Football Club Under 13s team and was the mascot at Huddersfield Town Women's football match on Sunday 26 September. Helena warmed up and walked out with them prior to the match.



Well done Helena, this is brilliant news. Lets hope that this is the start of something big.



# Mrs Hancock to take on the Virgin London Marathon

This Sunday, Mrs Hancock, Head of English, will be taking on the ultimate challenge: running the Virgin London Marathon. The event has already been postponed twice due to the pandemic, originally scheduled for April and then October 2020, but is now going ahead this weekend! It will be Mrs Hancock's first marathon and the culmination of a lot of training both last year and throughout this summer.

Mrs Hancock said: I started running back in 2014 as a way of getting fit and as someone who thrives on a challenge I originally set myself the goal of a 10K race. I have now completed numerous 10Ks, trail runs and half marathons and after missing out on the VLM ballot places I decided that I would approach a charity to ensure I could run in the 40th race just before my 40th birthday! If I was going to run 26.2 miles then it had to be the London Marathon – my childhood dream!

Sadly, the 2020 marathons were postponed due to the pandemic but I have maintained my fitness and followed beginner's marathon training programme, managing to run 20 miles in Hornsea at the start of September. I am now tapering for the big day and getting very excited (and nervous) about being able to take part in such an iconic event.

I also feel privileged and honoured to be running to support Cardiomyopathy UK as this is a heart condition that has affected my family. You can find out more about this condition and the charity here: <https://www.cardiomyopathy.org/>

The amount of support I have received after telling people about my marathon journey has been overwhelming. If you would like to read more about my story and make a donation to the charity, please visit my fundraising page here: <https://uk.virginmoneygiving>.













## HOUSE EVENTS

## Autumn 2021

**4 & 8 Oct**

**SENIOR GIRLS NETBALL (Yrs11 - 13)**  
**Sports Hall - Lunchtime**

**JUNIOR E-SPORTS (Yrs7&8)**

**Postponed**  
**New date TBC**

**8 & 15 Oct**

**SENIOR BOYS FOOTBALL (Yrs11-13)**  
**MUGA - Lunchtime**

**LAUNCH of HOUSE ART. 11 Oct**

**SENIOR DEBATES (Yrs10-13) - After School**

**11 & 18 Oct**

**12 & 19 Oct**

**INTERS GIRLS NETBALL (Yrs9 &10)**  
**Sports Hall - Lunchtime**

**HOUSE DANCE - After School**

**14 Oct**

**For further information see you Head of House**

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VISIT US @ [WWW.WEBSITE.COM](http://WWW.WEBSITE.COM)



# MUSIC

REGULAR - EXTRA-CURRICULAR ACTIVITIES

2021/22



## Music - Regular Extra-Curricular Activities – 2021/22

Regular Day	Ensemble	Time	Venue	Notes
Mondays	String Group	12.30 - 1.10pm	Room F102 Music Room	open to all string players
Tuesdays	Soul Band	12.30 - 1.10pm	Room F102 Music Room	See Mr Cole / Miss Sutcliffe for further details
Tuesdays	Percussion Group	3.20 - 4.00pm	Room F102 Music Room	open to all students – everyone welcome!
Tuesdays	GCSE Music Support	3.20 - 4.20pm	Room B105 ICT Music Room	open to GCSE music students for extra help in all GCSE Music work & theory
Wednesdays	Junior Choir	12.30 - 1.10pm	Room F102 Music Room	open to students of all abilities in years 7-9
Wednesdays	Rock and Pop Club	3.20 - 4.00pm	Room F102 Music Room	open to all students interested in performing in rock and pop groups
Wednesdays	Senior Girls Vocal Group	3.20 - 4.00pm	Room is TBC See Mr Hall	See Mr Hall for further details
Thursdays	Concert Band	3.15 - 4.15pm	Drama or S. Hall 8002 / Swann Hall	open to all band instrumentalists of about grade 2+ standard and above
Fridays	Senior Choir	12.30 - 1.10pm	Room F102 Music Room	open to students of all abilities in years 10-13

For any further information please see Mr Cole or Miss Sutcliffe



# Chess Club



Starting 27.9.21

Every Monday lunchtime

P.O.04

All Years And Skill Levels  
Welcome



HECKMONDWIKE  
GRAMMAR SCHOOL

## LGBTQ+ Club

A club for students from all years who identify as LGBTQ+ to meet in an inclusive and welcoming environment

If interested email:  
GBTQ+@heckgrammar.co.uk OR  
See/ Email: Miss Moss  
(nmoss@heckgrammar.co.uk)



## SGH: E-READER LIBRARY

The new ePlatform app is your ticket to unlock the world of eBooks and Audiobooks.

You have access to a book for 2 weeks  
You access via the website, or download the app.

To sign in you will need:

Username – this is your school username

Password – Library1

Please watch the videos to see how you can use the ePlatform.  
Scan the QR Code

Hints and tips for use  
Scan here

To access the platform and if you wish download the app Scan here





## DEBATE CLUB



### Details:

Starting 5/10/21 in P105 – the first few weeks will be about learning how to debate so you will need NO debating experience.

Any questions or queries email  
[18rathish@heckgrammar.co.uk](mailto:18rathish@heckgrammar.co.uk).

Starting 5/10/21 in P105



## TABLETOP GAMING CLUB

Interested in playing Warhammer 40K or other table top games? Want to learn more about these games?

Every Thursday after school, in S104 3.30 - 4.30pm, there is room to play and learn.

If you are interested, contact Thomas Haigh 10P2 ([18thaigh@heckgrammar.co.uk](mailto:18thaigh@heckgrammar.co.uk)) or join the Team (code dgwwl5x) for more information.



COMING TO HGS SUMMER 2022

## Grease

THE MUSICAL



AUDITIONS START • OCTOBER 2021

For further information please speak to  
the Music/Drama department staff





Every penny we raise means Macmillan can be right there for more people living with cancer.

Thank you to all who  
donated.

Final total

**£404.00**