

Friday 1st March

HEADS WEEKLY UPDATE



Armthorpe
Academy
FOUNDED 1965



New term, same focus.

For possibly the first time since I started in September, we've had the start of a new term with very few changes. Previously new terms had seen the launch of new initiatives, new staff starting at the Academy, or a new way of thinking about how things operate at Armthorpe.

Instead, this term must be about consolidating the things that we already do, about making sure that we're committed to doing what we say we are going to do. Change is always hard; change is also always inevitable. Everything we have done so far at the Academy is having a positive impact on the learning environment, and the teaching environment for the students and the staff here.

Data shows a significant drop in disrupted lessons, equally it shows a significant drop in disruptions outside of lessons. This is down to the commitment, hard work and buy in of the vast majority of students and staff to our recently launched 'Right to LEARN' and 'Right to TEACH' agenda. Simply put, your children deserve the right to disruption free lessons and my staff deserve the right to teach in a disruption free environment, it's really pleasing to know that the work we have started is helping us move towards this goal.

That said we're not there yet, there is still work to be done, work to be done on supporting the small proportion of students who are still struggling to buy into our new way of thinking, and work to be done making sure the staff here are as upskilled as possible to deliver fantastic lessons to your children.

Thank you to those parents that contributed ideas towards the names of the four houses that we are looking to launch at the Academy, staff have had their say, and I will be meeting with students in assembly next week to give them their opportunity too. From the ideas already put forward I am confident that we will come up with four names that truly reflects the history and heritage of Armthorpe. The survey is still open so if you do have any late ideas, please do feel free to continue to contribute.

On a final note, it was fantastic to see so many of you at our Year 9 & 11 parents evenings, thank you for the feedback on our new online booking system. As expected with anything new there were a few teething issues, but we seem to have ironed those out. If you are still having issues booking appointments for any of the upcoming parents' evenings, please get in contact with us as we can help with this.

As always, I would love to hear from you regarding any ideas you have to support the way we do things here at Armthorpe Academy, the last six months have absolutely flown by and it's strange to think I'm already halfway through my first year as Headteacher here. I'm extremely proud of what we've achieved in such a short space of time, but I am under no illusions as to the challenges that we all still face. Whilst the introduction of the house system is an exciting prospect for the future, I am also acutely aware that our year 11 students are now entering their final ten weeks before their summer exams. Unsurprisingly this will be a significant focus for me and my teaching staff over the upcoming term. Thank you in advance for your support in helping our students achieve and succeed.

Wonderful Work (join us in celebrating some of the amazing work our students have produced this week)

Benefits of life on a pale margin in colour

Benefits

- generating heat can be expensive using geothermal heat provides long term savings and has 0 CO₂ emissions.
- Products needed to build houses is expensive so having them on hand is a lot cheaper. They can spend the other money on other areas of development. It's also more readily available.
- Tourism brings in money so areas can become more protected.
- Swimming pools attract people who bring in more money without having to pay to heat. (Profit)
- Less money is spent on electricity and its readily available so people can afford to protect houses. (energy security)

Drawings:

- Hot water from within the earth's crust provides heat and hot water to nearly 90% of all buildings in Iceland.
- Volcanic rocks are used in construction of roads and buildings.
- The dramatic landscape with waterfalls, geysers and glaciers draw many tourists to Iceland.
- Naturally occurring hot water is used to heat greenhouses and swimming pools.
- Geothermal electricity is used to generate 25% of the country's electricity.
- The eruption of Eyjafjallajökull in 2010 made world headlines and drew attention to Iceland's volcanoes.

Other notes:

- Brings in tourists to see them erupting so money is brought in.

Wednesday 8 January 2020

Introduction to Chemistry

What is chemistry?

Chemistry is the study of matter and the changes it undergoes. Matter is anything that has mass and takes up space. Matter can be solid, liquid, gas, or plasma. Matter is made up of atoms and molecules. Matter can be pure or a mixture. Matter can be natural or synthetic. Matter can be used to make things that we use every day.

Properties of Matter

Mass: Mass is the amount of matter in an object. Mass is measured in kilograms (kg). Mass is a scalar quantity. Mass is conserved in a closed system.

Volume: Volume is the amount of space an object takes up. Volume is measured in cubic meters (m³). Volume is a scalar quantity. Volume is conserved in a closed system.

Density: Density is the mass of an object divided by its volume. Density is measured in kilograms per cubic meter (kg/m³). Density is a scalar quantity. Density is conserved in a closed system.

States of Matter: Matter can exist in four states: solid, liquid, gas, and plasma. Matter can change from one state to another. Matter can be pure or a mixture. Matter can be natural or synthetic. Matter can be used to make things that we use every day.

Climate Change

Definition: Climate change is a long-term change in the average weather conditions in a particular area. Climate change is caused by the greenhouse effect. The greenhouse effect is caused by the greenhouse gases in the atmosphere. The greenhouse gases trap heat in the atmosphere. The greenhouse effect is a natural process. The greenhouse effect is essential for life on Earth. The greenhouse effect is being enhanced by human activities. The enhanced greenhouse effect is causing global warming. Global warming is the increase in the average temperature of the Earth's atmosphere. Global warming is caused by the greenhouse effect. Global warming is a global problem. Global warming is a serious problem. Global warming is a threat to the environment. Global warming is a threat to human health. Global warming is a threat to the economy. Global warming is a threat to the world.

Causes:

- Greenhouse gases: CO₂, CH₄, N₂O, CFCs, HFCs, PFCs, SF₆.
- Human activities: burning fossil fuels, deforestation, industrial processes, agriculture, transportation.
- Natural processes: volcanic eruptions, solar radiation, ocean currents.

Effects:

- Global warming: increase in average temperature, melting glaciers, rising sea levels, droughts, floods, extreme weather events.
- Acid rain: damage to buildings, forests, and water bodies.
- Ozone depletion: increase in skin cancer, cataracts, and other health problems.
- Sea level rise: flooding of coastal areas, displacement of people.
- Loss of biodiversity: extinction of species, damage to ecosystems.
- Human health: heat stress, respiratory problems, food and water insecurity.

Solutions:

- Reduce greenhouse gas emissions: energy efficiency, renewable energy, public transport, recycling.
- Protect and restore ecosystems: reforestation, wetland restoration, marine protected areas.
- Adapt to climate change: sea level rise protection, drought-resistant crops, disaster preparedness.
- Policy and legislation: Paris Agreement, carbon pricing, climate change laws.
- Education and awareness: climate change education, public campaigns, individual actions.

Creative Writing - Continued

Drizzling droplets cascaded down and onto Newman's face. The heavy night shadowed over the unloved and dishevelled core of Mother Nature. He'd lay there with his shovel, his finger tips were entangled within the weeds whom have never been grazed by the Sun's warm compassion. Newman's crooked teeth were revealed as the withered trees spiralled in his view. Breeze, its gloomy appearance wrestled with the waters from above, fighting in every angle and second imaginable. His boney and grazed fingers shook up the shovel's neck, the wood was smooth, delightful to touch.

Solving Equations

Example 1 do:

$$\begin{cases} 3x + 8 = 23 \\ 3x = 20 \\ x = 5 \end{cases}$$

GO - Solve

$$\begin{aligned} 1) & 4x + 5 = 23 \\ & -4x & -5 & -5 \\ & \hline & 3x = 20 \\ & \div 3 & \div 3 & \div 3 \\ & \hline & x = 5 \end{aligned}$$

$$\begin{aligned} 3) & 6x + 8 = 44 \\ & -6x & -8 & -8 \\ & \hline & 0x = 36 \\ & \div 0 & \div 0 & \div 0 \\ & \hline & 0 = 36 \end{aligned}$$

$$\begin{aligned} 4) & 9x + 8 = 80 \\ & -8 & -8 & -8 \\ & \hline & 9x = 72 \\ & \div 9 & \div 9 & \div 9 \\ & \hline & x = 8 \end{aligned}$$

Assess

Solve: $6x + 7 = 37$

$$\begin{aligned} & -6x & -7 & -7 \\ & \hline & 0x = 30 \\ & \div 0 & \div 0 & \div 0 \\ & \hline & 0 = 30 \end{aligned}$$

Solve: $5x - 3 = 17$

$$\begin{aligned} & -5x & +3 & +3 \\ & \hline & 0x = 20 \\ & \div 0 & \div 0 & \div 0 \\ & \hline & 0 = 20 \end{aligned}$$

Factorising a Quadratic

Label:

$$\begin{aligned} f(x) &= 2x + 10 \\ g(x) &= x^2 + 3 \end{aligned}$$

a) find f(x)

$$f(x) = 2(x+5) + 0 = 2x + 10$$

b) find g(x)

$$g(x) = x^2 + 3 = (x+1)(x-1) + 4$$

c) find f'(x)

$$f'(x) = 2$$

d) find g'(x)

$$g'(x) = 2x$$

Behaviour & Attendance

Fantastic 5ive
Every Friday the top 5 students with the most behaviour points join me for a Hot Chocolate and a Cookie whilst we chat all things Armthorpe. From next week, their names will appear here!

Most Form Praise Points this week:
Yr7: Miss Whelan (5420) Yr8: Miss Dodd (9725)
Yr9: Mr White (4810) Yr10: Miss Stothard (4705)
Yr11: Mr Booth (1700)

Best Weekly Attendance:
Yr7: 7GWY (96.3%) Yr8: 8MLO (96.8%)
Yr9: 9ABU (100%!) Yr10: 10LST (97.6%)
Yr11: 11TSC (98.1%)

Dates for your Diary

- 5th March: Yr10 Parents evening
- 5th March: HPV Vaccine Yr8
- 6th March: Man City Trip
- 8th March: International Womens Day - STEM Outreach event
- 14th March: Yr8 Parents evening
- 26th March: Yr9 Options Evening
- 29th March: Last day of term