

# STEAM AND VINTAGE SCHOOLS PACK 2020/2021

## **AIMS:**

Our aim is to encourage a new generation of steam and vintage enthusiasts.

Our goal is to inspire the imagination, introduce children to the history of locomotives, and teach through a fun and innovative approach.

For the first time in the club's history we are inviting schools to take part in a competition to introduce them to the fascinating world of steam engines.

## **WHAT IS THE COMPETITION?**

Dependent on age there are 3 ways to take part:

1. Write a fictional short story (100 words or less) about a steam engine.  
Things to think about:
  - a. Provide the Steam Engine a name
  - b. Think about the purpose of the engine; Does it have a job? Does it have a personality?
  - c. What makes it important? Are there other engines like it? How old is it?
  - d. Should it be preserved or put to the scrap heap?
2. Write one sentence in the puff of smoke to illustrate what the steam engine might be thinking.
  - a. Remember to colour in the picture
  - b. The engine could be thinking anything – it could be working in the present day, being shown off at a vintage fair or might be back in the past when it was first made...
3. Colour in the picture of the steam engine and give it a name to suit the decoration you have adorned it with.



## **WHAT WE CAN DO TO HELP:**

- \* We would work with your school to deliver a wholesome project.
- \* Winning pupils would be given a Jubilee Club Membership and receive free entry to the Jubilee Steam and Vintage Fair at Castle Fraser on the 19<sup>th</sup> & 20<sup>th</sup> June 2021.

## ABOUT US:

### We are the ultimate recyclers!

Throwing nothing away and repairing what is possible, we believe in preserving the integrity of locomotives to be as original as possible.

### We are friends and educators!

Helping each other put together engines, creating a fair for others to enjoy, and teach our important heritage in North East Scotland displaying how this feeds into a wider social history.

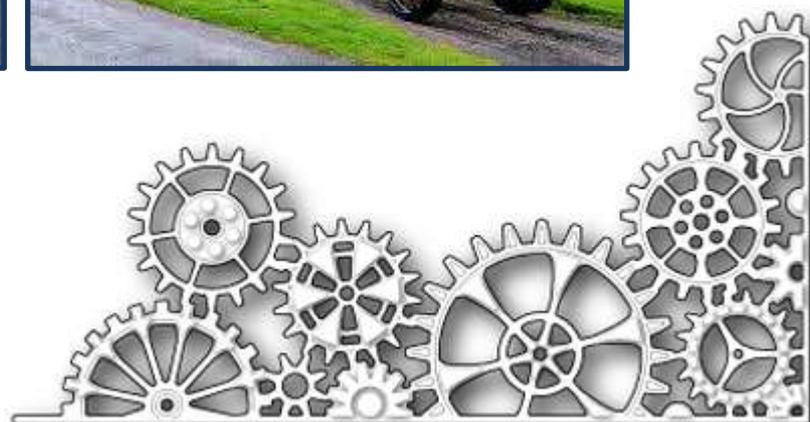
### We are part of something important!

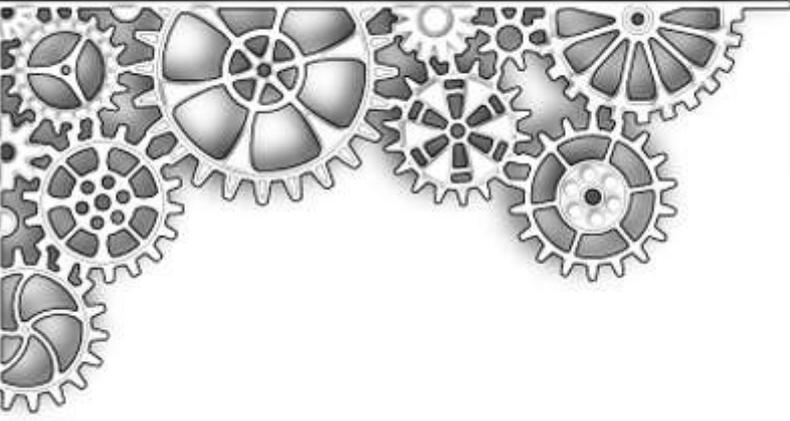
We promote all types of self-propelling steam engines and vehicles and support any moves to preserve portable and stationary engines. We save locomotives and become part of their past, present and future – we like to show that, in a throw-away society, it is better to restore rather than discard.

WE HAVE PUT TOGETHER AN INFORMATION PACK TO HELP SCHOOLS GET STARTED CITING THE HISTORY OF THE BON ACCORD STEAM ENGINE CLUB, HISTORY OF LOCOMOTIVES, BACKGROUND TO CASTLE FRASER AND A FEW OTHER BITS AND PIECES...

**A new generation of steam enthusiasts is needed to keep this important history alive.**

**It can teach you skills in restoration, engineering and historical research as well as welcoming you into a thriving social network whereby inquisitiveness is encouraged and an ability to 'spin a yarn' becomes ingrained into your**





# INFORMATION PACK

## CASTLE FRASER – THE HOME OF THE STEAM FAIR

Castle Fraser is a 16<sup>th</sup> century baronial tower house, built from local granite by local masons. The Frasers came to Scotland in the 12<sup>th</sup> century, from Normandy, in France and they celebrated their French origins by retaining the flower of the strawberry (fraise in French) as part of their coat-of-arms.

Andrew Fraser became the first Lord Fraser in 1633 and the family lived in the Castle until 1921 when the estate was bought at auction by the First Viscount Cowdray, for his second son, the Hon. Clive Pearson. The Cowdrays owned the neighbouring estate of Dunecht.

In 1946 Mr. Pearson gave Castle Fraser to his second daughter Lavinia, who, with her husband Major Michael Smiley undertook extensive preservation work to ensure that the Castle was wind and watertight for the foreseeable future. In 1976 they gave Castle Fraser, to the National Trust for Scotland to provide continuing care and conservation for everyone to enjoy.

There are many interesting features on, and in, the Castle – the “crow steps”; the triple gun-loops, the Laird’s Lug, the servants’ bells – and lots more. And in the grounds – the Moses Well, a Pump House and Ice House and the flight pond where rare damsel flies can be seen flitting over the water.



## FACTS ABOUT STEAM

- A Steam Engine is an engine which uses steam from boiling water to push the engine parts to make it move.
- The steam is made in a boiler which heats water to make the steam.
- In most instances a fire heats the boiler.
- Fuel for the fire may be wood, coal or petroleum.
- Nowadays nuclear energy or solar energy may be used instead of fire
- It was in the 1800s that worldwide experiments began using the power of steam to develop the movement of engine parts for a range of uses.
- Steam power was used to:
  - Work machines in factories
  - Power railway trains, steamships, mobile fire engines, steam-powered bicycles, velocipedes, aeolipiles, cars, even – aeroplanes!
- The large steam engines which you will see at the Bon Accord Steam & Vintage Fair at Castle Fraser in June are called– Showman’s Engines. They were designed to provide power and transport for travelling funfairs and circuses, and used to power fairground rides such as “The Gallopers” which you will be able to ride on at the Fair!
- Showman’s Engines/Special Scenic Engines were painted in bright colours, with shiny brass fittings and more recently they are often fitted with a string of lights around the top.
- Showman’s Engines & Steam Wagons have wonderful names – “Super Lion”, “Goliath”, “Finella”, Wanderin’ Willie” Heilan Lassie”, “Supreme”, “Britannia” – and lots more.



## THE INDUSTRIAL REVOLUTION

Put simply, the Industrial Revolution in the 18<sup>th</sup> century was among the most important points in history that changed the way the world worked. Manufacturing of goods moved from small shops to large factories in industrial cities to cater to the mass markets.

### Why did the Industrial Revolution happen?

There are several causes which culminated in a race to modernise:

- The rise of Capitalism – wealthy people wanted to start their own businesses and make more money so they left their mark in history and capitalism as an economic theory helped them achieve this.
- European Imperialism – European countries were taking over other areas of the world to create their Empires. This gave them access to new trade markets and supplies. They were also able to sell the goods, that they produced in their factories, more easily to other countries.
- Coal Mining – the United Kingdom could easily mine their coal, of which there was an abundant supply, which would power steam locomotives
- Agricultural Revolution – there was an increase in food production in the 17<sup>th</sup> century and the effects were felt in the 18<sup>th</sup> century with an increase in population due to more readily available foods. Therefore, there was a larger workforce in need of work.

### The role of steam?

The invention of the steam engine was crucial to the industrialisation of modern civilisation. For almost 200 years it was the outstanding source of power for industry and transport systems in the West. It prepared the way for the development of more sophisticated heat engines and for the large-scale generation of electricity, which together effectively displaced it from its supremacy in the 20th century.

In 1750 an inventor called James Watt built on the development of others and became a major contributor to steam technology.

- In 1763 Watt added a separate condenser to the Newcomen's engine which saved fuel
- During this period he was working with people involved in the iron-producing industry.
- Watt then teamed up with a former toy manufacturer who had changed profession.
  - In 1781 Watt, former toy man Boulton and a man named Murdoch built the 'rotary action steam engine'.
  - This was the major breakthrough because it could be used to power machinery
- In 1788 Watt fitted a centrifugal governor to keep the engine running at an even speed.
- Now there was an alternative power source for the wider industry and after 1800 the mass production of steam engines began.

The steam engine was the workhorse in all factories replacing animals, humans, windmills and waterwheels as sources of energy. Soon, steam engines became a way of travel with steam ships, trains, cars, tractors and wagons being invented to make trade cheaper and more effortless.

In short, the Industrial Revolution transformed the way trade was done and opened up Europe to the wider world.

## QUESTIONS

1. Where did the Frasers come from?.....
2. What is the French word for strawberry?.....
3. Name 3 interesting features at Castle Fraser:  
.....
4. How is steam produced?.....
5. What fuel can be used to make the fire?.....
6. In what century were steam engines being developed?.....
7. Which engine would you like to see at Castle Fraser?.....
8. What was the name of the inventor who developed the Steam Engine to work in factories?  
.....
9. Name one of the things that powered factories before steam engines .....

