Class 4 Rinsey Autumn 2020 Medium term Plan **Machines, friend or foe?**

<table>
<tr>
<td>Topic

Essential Question
Are machines our friends or foes?</td>
<td>Launch

Steampunk airships
Story map
Ranking machines/technology
Simple machine hunt</td>
<td>Class Book

Before I Met Dudley
iRobot
Clockwork
Cogheart</td>
<td>End Authentic Outcome

An on – line celebration of writing, music and performance.</td>
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<td rowspan="2">What will the classroom look like?
There will be the main question illustrated with examples that the pupils will have ranked between friend and enemy, with reasoning.
A start of a city on the back wall to be added to by children – houses, steps and joining bridges, levers and pulleys.
Large suspended cogs
Steampunk dirigibles

DT techniques and model ideas

Class fiction and non fiction books within the topic area</td>
<td rowspan="2">Developing the classroom

A machine – city where the pupils add to the functions of the city as they discover machines and their uses
A corridor timeline of significant machine and technology development
Dadwavers and sentence wall
Spelling prompts
Maths working wall, starting with place value
Steampunk dirigibles hanging from the ceiling made as an introduction activity
Ranked machines from friendly to not so friendly
Reasoning for persuasion of a point of view</td>
<td>Trips/visits to support project

Use of outdoor learning spaces – machines drama – based on studies texts, performance poetry, sculpture and dance.
The rhythms of machines.
If possible, socially distanced visit to machine – rich environment, to be decided within risk assessment guidelines.</td>
<td>Literacy genres

Letters
Narrative (building suspense, description)
Non chronological report
Poetry
Persuasive</td>
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<td>Use of outdoor class
Class reader in story – telling area
Drama freeze – frames in amphitheatre
Large simple machine exploration i.e. levers – wheelbarrows/porter trolley
Catapult courses</td>
<td>Innovative use of ICT

Pic collage simple machine hunt
Story maker – around chosen theme
Function machine calculator
Graphic novels</td>
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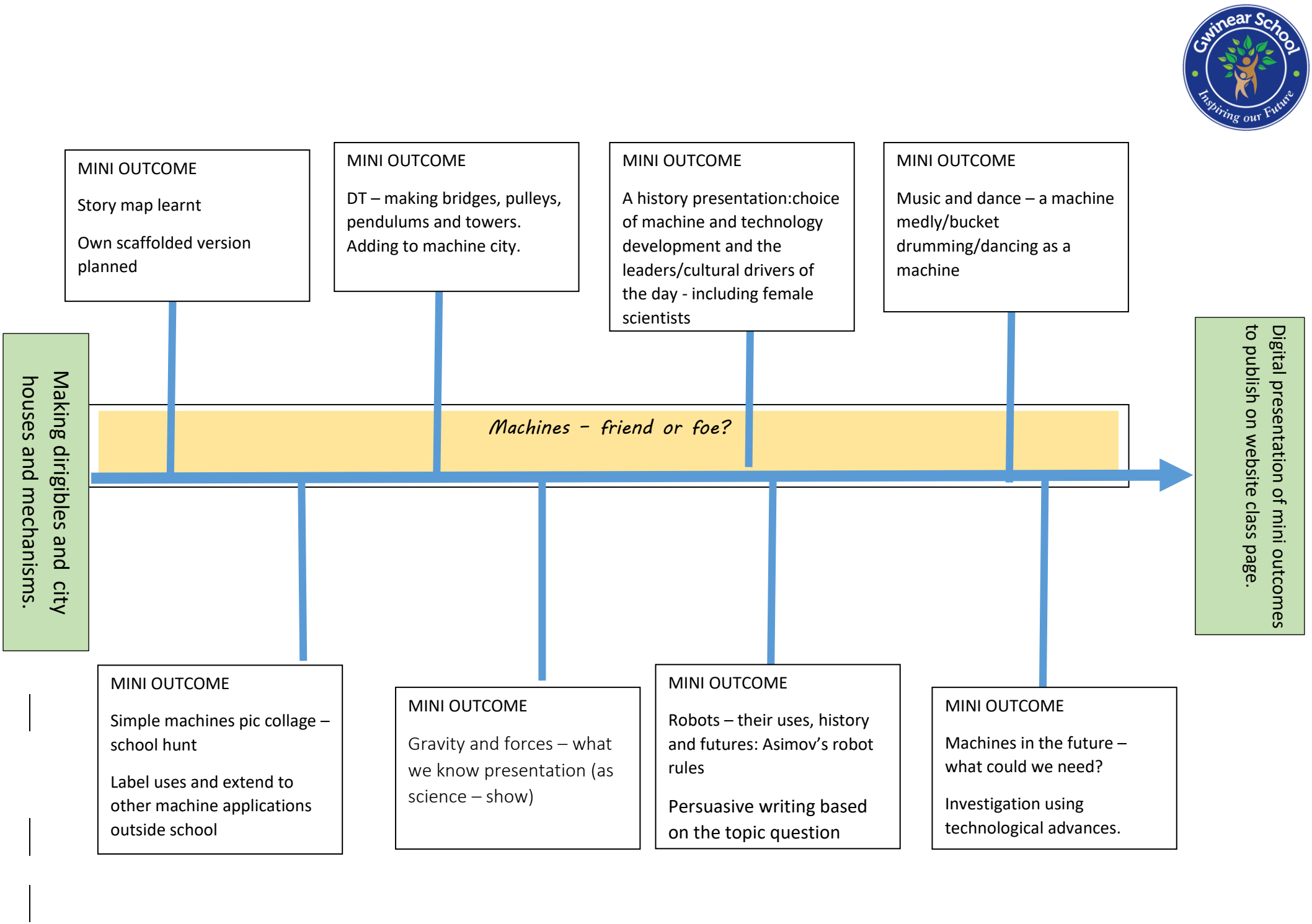
MINI OUTCOME
Story map learnt
Own scaffolded version planned
MINI OUTCOME
DT – making bridges, pulleys, pendulums and towers. Adding to machine city.
MINI OUTCOME
A history presentation:choice of machine and technology development and the leaders/cultural drivers of the day - including female scientists
MINI OUTCOME
Music and dance – a machine medly/bucket drumming/dancing as a machine
Making dirigibles and city houses and mechanisms.
Machines – friend or foe?
Digital presentation of mini outcomes to publish on website class page.
MINI OUTCOME
Simple machines pic collage – school hunt
Label uses and extend to other machine applications outside school
MINI OUTCOME
Gravity and forces – what we know presentation (as science – show)
MINI OUTCOME
Robots – their uses, history and futures: Asimov's robot rules
Persuasive writing based on the topic question
MINI OUTCOME
Machines in the future – what could we need?
Investigation using technological advances.

MACHINES – FRIEND OR FOE?

Using the theme of 'Machines, friend or foe?', we will be discovering why we need machines, how they have changed our world and understanding, who has developed them and why and what machines in the future could bring.

English

Before I Met Dudley – real and imagined mechanics

https://www.youtube.com/watch?v=Bp4tGTNNi1I (from 1.06)

iRobot – 'Robbie'

How Dogs really Work

Clockwork

Sources for writing: Ingenious wood/metal machines https://www.youtube.com/watch?v=_7rdKaLh2To

Heath Robinson: https://www.youtube.com/watch?v=9c8UC2iYAm0

Science

- Linked to DT
- Simple machines
- Forces
- Scientific process

Application of science in the real world

Timeline of scientific discoveries linked to technology

Discovery of female scientists

Design technology- 'tinkering' https://www.youtube.com/watch?v=KKBHM2ZCcVo

Heath Robinson designs and ideas, Wallace and Grommit Rob Higgs https://www.youtube.com/watch?v=wSuH9u0kvhU

Catapults, balloon cars, paddle boats, cams, lever mechanism https://www.youtube.com/watch?v=xh1jTtAxs_Q

Cutting and Joining techniques

History:

Inventions and what seemed important by the period of the era (ie wars, needs)

Female inventors, scientists and inventors

The impact of discoveries and advances-

Weapons and machinery

Industrial revolution

Technology and space

Music/dance
https://www.extremetech.com/extreme/278999-boston-dynamics-spotmini-robot-can-bust-a-move
Bucket – drumming
Listening activities from machine sources
Dancing using machine – like moves, to build to one large machine as distancing allows

DT/Art Bridget Riley, Heath Robinson

Machine – inspired cut outs/Patrick Caulder moblies

Collage/ colour collage

Printing/ kinesthstic art

Still life of machines

Designing and notemaking

Cutting/finishing techniques

Joining techniques for 3D models