Adverse Weather Learning

Here are some tasks and challenges for you to complete while you are learning at home due to the weather.

English

Write a short story, poem or opening chapter to continue the following:

You wake up and the world is completely frozen…

D&T

Design (and model, if possible) a vehicle that could travel through deep snow.

Context

In many parts of the world, heavy snowfall can make it difficult for emergency services, supply vehicles, or everyday transport to move efficiently. Your challenge is to **design and model a vehicle capable of travelling through deep snow**, considering real-world problems such as traction, stability, weight distribution, and environmental impact.

What You Need to Do

1. **Research:**
    - Find out how real snow vehicles work (e.g., snowmobiles, snowploughs, snowcats).
    - Look at the features that help them move over snow — such as wide tracks, skis, or low weight.
2. **Design:**
    - Create **sketches** of your vehicle showing different views (side, top, front).
    - Label your drawing to show key features — for example, how it moves, where the driver sits, how it's powered.
    - Explain **why** your design would work well in snow.
3. **Model (optional):**
    - If you can, make a simple **model or prototype** of your design.
    - Use whatever you have at home — card, paper, LEGO, recycled materials, or digital design tools.
4. **Evaluate:**
    - Write a short paragraph explaining what works well in your design and what you might improve.

D&T

Draw and label your design.

Evaluate your design:

Science

Compare the weather forecast for your local area to school over a 5-day period. Research and record how the weather might change, minimum and maximum temperatures, chance of precipitation and sunrise and sunset times.

Weather forecast for _____.

	Mon	Tues	Weds	Thurs	Fri
Weather forecast					
Minimum Temperature					
Maximum Temperature					
Chance of Precipitation					
Sunrise					
Sunset					

Weather forecast for Heasley Mill.

	Mon	Tues	Weds	Thurs	Fri
Weather forecast					
Minimum Temperature					
Maximum Temperature					
Chance of Precipitation					
Sunrise					
Sunset					

Compare the two forecasts, what do you notice?

Maths

You've been asked to organise a **community "Snow Day Café"** where people can buy hot drinks and snacks. You have a budget of **£50** to spend.

Your challenge:

1. Research (or estimate) the prices of hot chocolate, marshmallows, biscuits, and cups.
2. Create a **shopping list** showing what you can buy within your £50 budget.
3. Work out how much each item would cost **per serving**.
4. If you sell each hot drink for £1.50 and each biscuit for 50p, calculate your **total profit** if you sell out.

Extension:

- Create a bar chart showing how your £50 was spent.
- How would your profit change if prices increased by 10%?

Maths

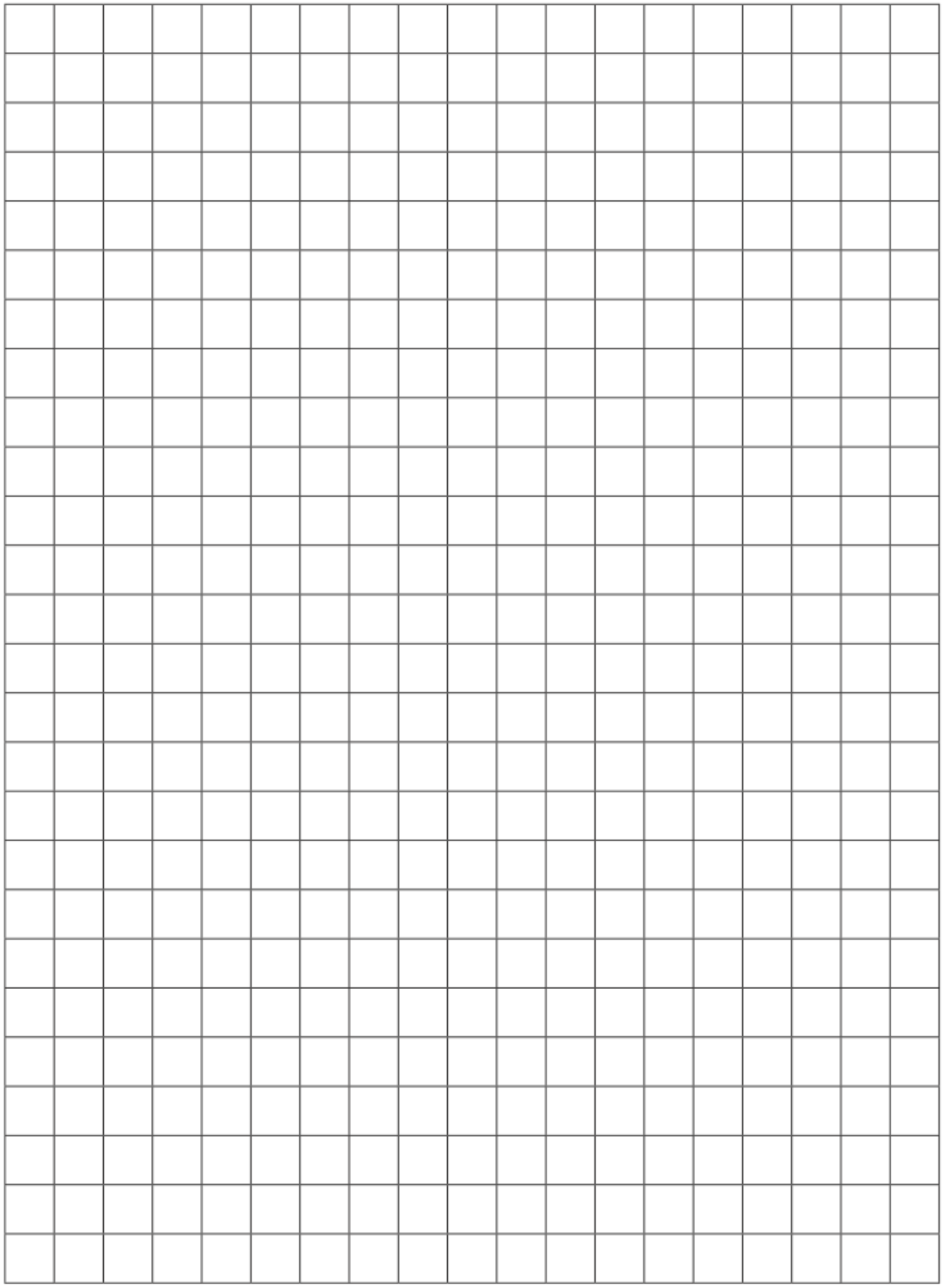
Track and analyse the **temperature changes** during the snow week!

Your challenge:

1. Use a thermometer or look online for the **daily temperatures** in your local area over 5 days.
2. Record the data in a **table**.
3. Draw a **line graph** to show how the temperature changes.
4. Calculate the **mean, median, and range** of your data.

Extension:

- Predict what the temperature might be over the next 3 days using your graph.
- Explain how **negative numbers** are used in weather forecasting.



History

Research a famous winter event in history e.g., The Great Frost of 1709 or Nepoleon's winter campaign.

Create a fact file or presentation to show your findings.