# BUILDINGATOWN



Education



English Science Mathematics HASS Arts Technologies

# **Itinerary**

	Task	Approximate completion time	You will need	Completed (tick or shade when this task is completed)
1	Leading the town (slides 3-7)	40 minutes	Internet Access	
2	Your town's identity (slides 8-13)	50 minutes	Internet Access	
3	Climate <u>(slides 14-23)</u>	25 minutes Challenge 20 minutes	Internet Access	
4	Building your town (slides 24-31)	40 minutes	Internet Access or Paper and pencils	
5	Building a home (slides 32-36)	45 minutes	Internet Access or Paper and pencils	
6	Powering the town (slides 37-45)	98 minutes	Internet Access	
7	Planning a party <u>(slides 46- 51)</u>	60 minutes	Internet Access or Paper and pencils	
8	Advertising the town (slides 52)	60 minutes	Internet Access or Paper and pencils	

# Congratulations to the new Mayor!

A new town has formed in a rural community, 150 km away from Australia's fastest growing city. Following a recent election, you have been elected the town's first mayor. The new town has very few shops, services, and homes but is becoming very popular with people leaving the city. It is known for its rich soil, pleasant climate and for the few gold nuggets found in the local river.

What is a Mayor?

Visit this website to find out more about being a Mayor in Australia.

Being a Mayor in Australia

Scan the QR code or enter the URL



What will be your priorities?
What will you learn?
What challenges will you overcome?

Let's prepare for your new role!



https://kids.kiddle.co/Local\_gov ernment\_in\_Australia

#### **Becoming a mayor**

Becoming a mayor takes more than talent and hard work. Watch this video to find out the steps of becoming a mayor. Fill in the empty spaces to write the 4 steps needed to get the top job in town.

Pink boxes are where you write your answers



https://www.youtube. com/watch?v=DUhw QWi5GFo&t=3s



Scan the QR code or enter the URL

Steps

#### Being a mayor

Before choosing to become a mayor, you may want to know more about the roles and responsibilities. Watch this video to find out more about being a town mayor. Fill in the empty spaces to write down some of the roles and responsibilities.



https://youtu.be/zttxo nJaWP0



Scan the QR code or enter the URL.

Roles

#### Did you know...

In Australia, the elected person responsible for looking after the entire state or territory is a **Premier or Chief Minister**. In other countries, they are known as **Governors**.

#### Can you pass the Mayor quiz?

Are you able to identify which are Australian states and towns? Can you recall who is the person responsible for running states and towns?

	Is it a <b>state</b> or a <b>town?</b>	Who is in charge - Mayor or Premier?
Wagga Wagga		
Victoria		
Tasmania		
Queanbeyan		
Queensland		
Orange		
Dubbo		

#### Writing a speech



Write a persuasive speech about why you should be the first mayor for the new town. This article will remind you about persuasive writing if you need it.

# Writing a speech

#### What should we call the town?

Question	My Answer
What did you call your town?	
Why did you call it that?	

#### Flags and Emblems

Countries, cities and towns have flags and emblems that represent them. States and territories have them too.

The flags and emblems have special meanings.

For example, the Australian Aboriginal flag is made up of three colours, each with a meaning.



**Black** represents the Aboriginal people of Australia.

**Yellow** circle represents the Sun, the giver of life and protector.

Red represents the red earth, the red ochre used in ceremonies and Aboriginal peoples' spiritual relation to the land. Scan the QR co



https://www.naidoc.org.au/about/indigenous-australian-flags

Scan the QR code or enter the URL to learn more about the Aboriginal flag

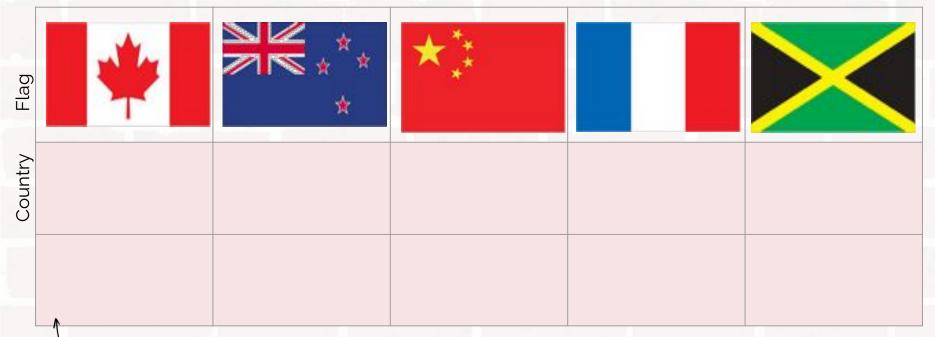
#### **Looking at flags**

Use <u>this website</u> to find out which country each of these flags come from.



Scan the QR code or enter the URL below to access the website

https://www.worldometers.info/geograp hy/flags-of-the-world/



Extension: research the symbolism of each flag and write it in the bottom row.

#### The Australian Capital Territory Flag

Use this <u>website</u>



and this <u>video</u>



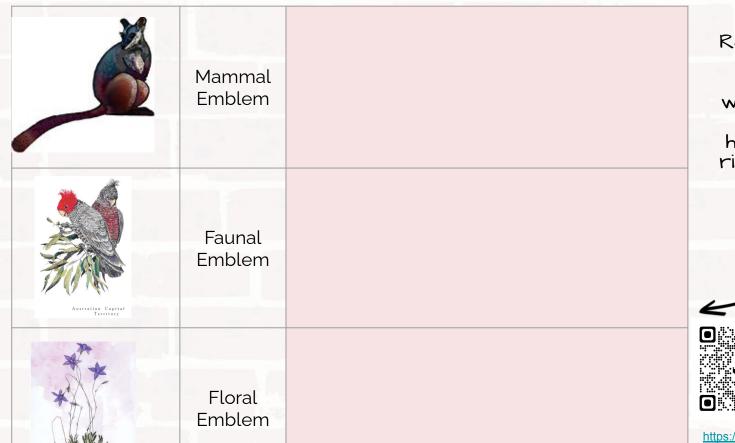
Scan the QR codes or enter the URLs to access the website and video, to help you answer the questions below. https://www.youtube.com/watch?v=AzDIC29oE30

Draw the ACT flag here

https://www.cmtedd.act.gov.au/communication/flags

Question:	My answer:
1. Who designed the ACT flag?	
2. What colours make up the ACT flag?	
3. What objects make up the coat of arms seen in the flag and what do each represent?	
4. What are the 3 branches of government that are represented in the coat of arms?	

#### Canberra's emblems



Research each of
Canberra's
emblems on the
website below and
write what you
have learnt in the
right column about
each one. What
makes them
significant to
Canberra?



Scan the QR code or enter the URL to access the website

 $\frac{https://www.cmtedd.act.gov.au/communic}{ation/flags}$ 

#### The town's coat of arms

Design a <u>coat of arms</u> for your town. Think about why you have chosen each object and element found in your coat of arms, e.g. colour, shape, symbols.



#### Scan the QR code or enter the URL below to access the website

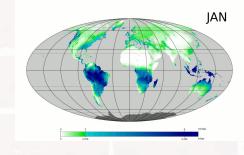


https://www.cmtedd.act.gov.au/communication/flags

Design	About my design

#### Climate information for your town

Australia's Bureau of Meteorology collects **weather** and **climate** information for towns and cities across the entire country. This information can be useful for the citizens and workers of your town. Fill in the spaces to list why knowing this information may be important for all the citizens living in a region.



# Reasons to understand the climate and weather in your region? tomorrow.

Did you know...
Weather refers to the day to day forecast. An example is that rain is expected

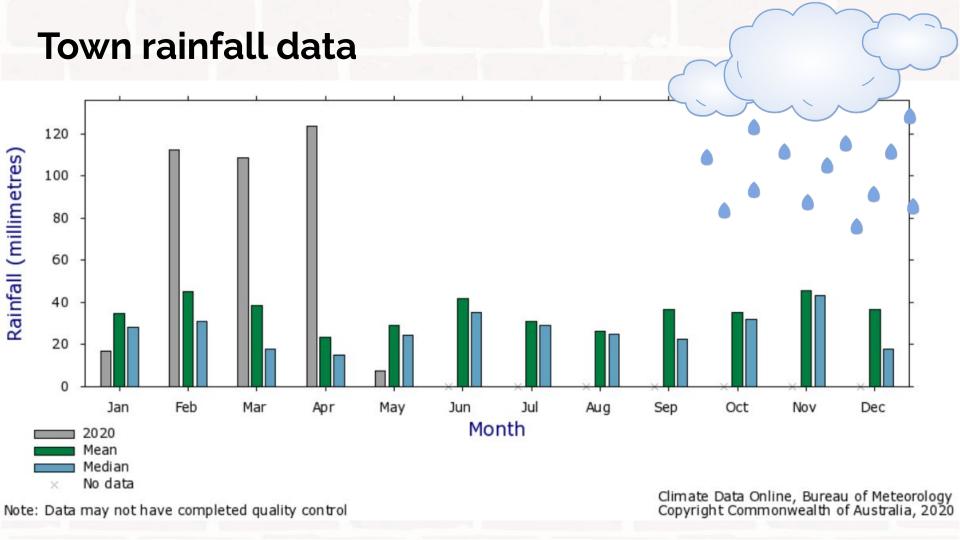
Climate refers to the long-term study of the weather in a region or the planet over a number of years or centuries. An example is global warming and ice ages.

#### View the town's climate data

Scan the QR code to access the website with information for you

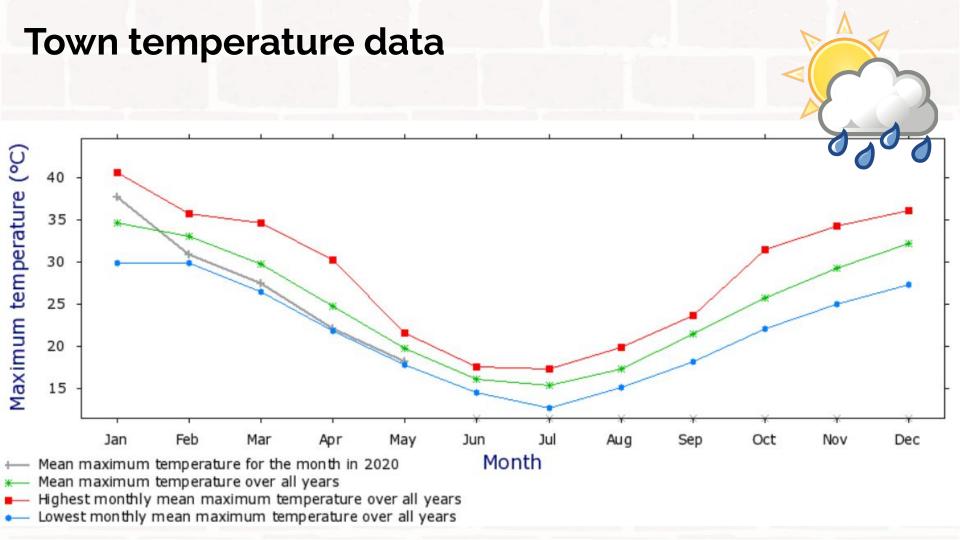


- The next slides contain climate data for your town taken from the Bureau of Meteorology.
- The graphs show the most recent information for the first 5 months of 2020 as well as average values from past years.
- By studying the monthly average values (mean past years, this helps us to predict how any changes in weather will affect a region and the people who live there.
- Observe and compare 2020 rainfall and temperature data as seen in the graphs to past averages and answer the questions that follow.



#### Town rainfall data

Question:	My answer:
1. Which month(s) appear to have the highest average (mean) rainfall?	
2. What was the highest amount of rainfall (in mm) for 2020?	
3. How does the rainfall for 2020 compare to what has happened on average in the past? Explain if the climate is changing.	
4. Observe the rainfall recorded for May 2020. Explain if the citizens should be concerned.	



# Town temperature data

Question:	My answer:
1. Which is generally the hottest month of the year?	
2. Observe the maximum average (mean) temperature for all past years. How does 2020 compare to the temperature in the past?	
3. Which season appears to be the coldest?	
4. This graph only shows the maximum temperature and not the minimum temperature. What is meant by <b>minimum</b> temperature?	

# Search Canberra's temperature data

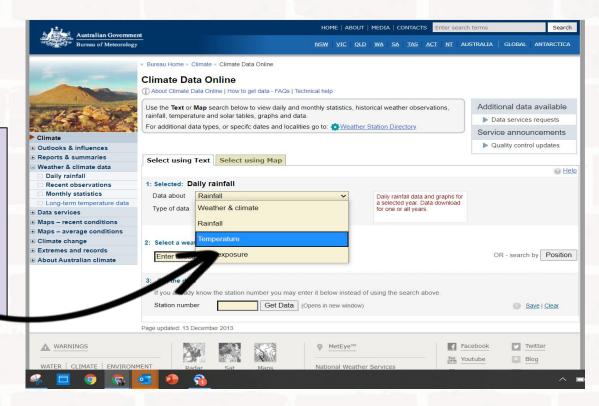


#### Step 1:

Visit the Bureau of Meteorology website by scanning the QR code or entering the URL

#### Step 2:

Select
'Temperature' from
the menu

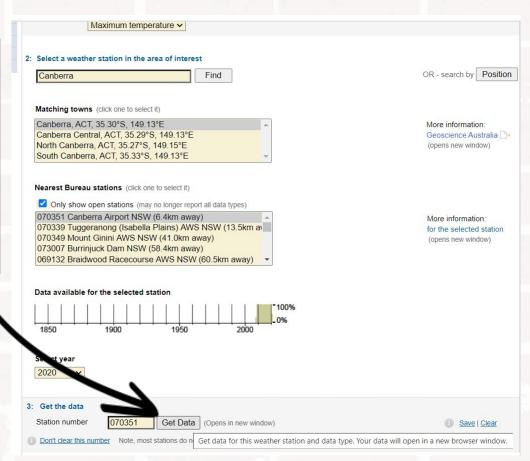




#### Search the Canberra's temperature data... continued

Step 3:

Fill in the information for Canberra and then click on 'Get Data'



#### Search the ACT's temperature data... continued

15th	33.2	29.8	19.6	24.4	15.0	14.1			
16th	29.3	26.0	20.5	22.6	16.1	15.2			
17th	24.8	26.3	22.9	18.8	17.1	13.4			
18th	25.3	31.2	25.2	18.5	17.3	14.9			
19th	31.3	21.1	28.1	17.9	17.4	15.8			
20th	27.9	25.4	28.6	18.2	15.3	17.1			
21st	27.6	26.5	24.3	20.8	14.3	12.4			
22nd	34.3	26.3	25.4	20.7	12.9	10.6			
23rd	34.9	26.5	21.5	18.7	11.3	11.6			
24th	28.8	29.7	23.0	22.3	14.1	15.2			
25th	33.7	30.6	24.9	20.8	13.6	13.1			
26th	34.7	29.8	20.9	17.5	15.2	12.2			
27th	35.9	26.2	21.5	18.5	14.3	11.2			
28th	34.4	28.3	22.1	21.9	16.6	13.0			
29th	32.0	26.7	25.0	16.8	14.6	11.4			
30th	37.3		23.7	9.7	15.5				
31st	41.9		23.6		16.0				
Highest daily	44.0	42.7	31.1	25.8	19.8	17.1			
Lowest daily	21.5	18.4	18.2	9.7	9.4	10.6			
Monthly mean	31.7	27.7	23.4	18.9	15.0				

Annual mean maximum temperature to May this year = 23.3 °C

View all monthly data

Plot year of daily data

#### Summary statistics for all years

Move mouse over highest and lowest daily temperature to view dates

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	30.8	28.2	25.2	21.0	16.6	13.4	12.8	14.2	18.1	21.7	25.3	27.8
Highest monthly mean	34.5	30.1	27.7	25.0	17.6	14.1	13.7	16.0	21.0	24.8	29.4	31.7
Lowest monthly mean	27.4	25.0	22.1	18.9	15.0	12.9	11.5	12.3	15.8	18.5	22.5	23.6
Highest Daily	44.0	42.7	35.5	31.8	24.5	17.7	18.8	21.3	30.2	32.1	39.9	41.1
Lowest Daily	17.1	16.9	16.4	9.7	9.1	4.1	7.0	7.5	9.2	8.6	11.9	14.8

III Plot statistics and this year

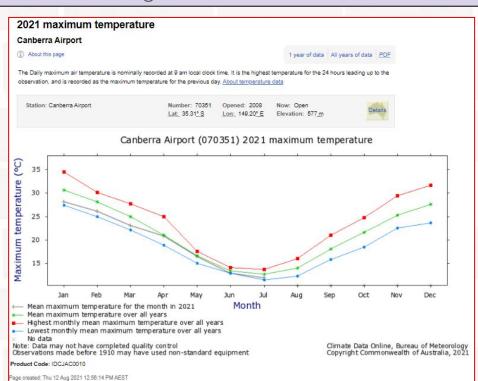
Data within the table which are in italics represent observations which have not been fully quality controlled, a process which may take a number of months to complete. While these data may be correct, you should exercise caution in their use. For observations of daily maximum temperature which span more than one day it indicates that there is some uncertainty associated with the exact date on which the daily maximum temperature occurred.

#### Step 4:

Once the data appears, click on 'Plot statistics and this year' to view the graph.

#### Graph of Canberra's temperature data

**Step 5:** Use your graph or the sample below to answer the questions to the right.

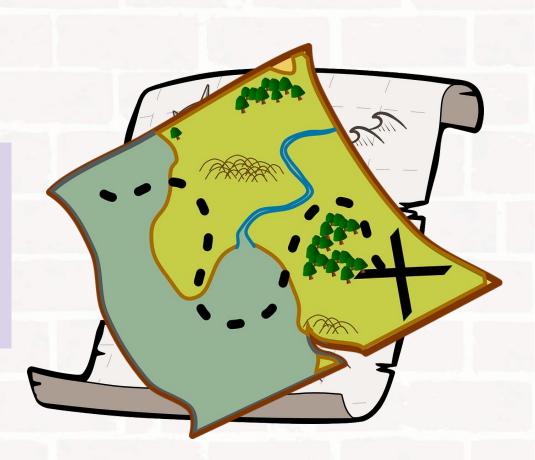


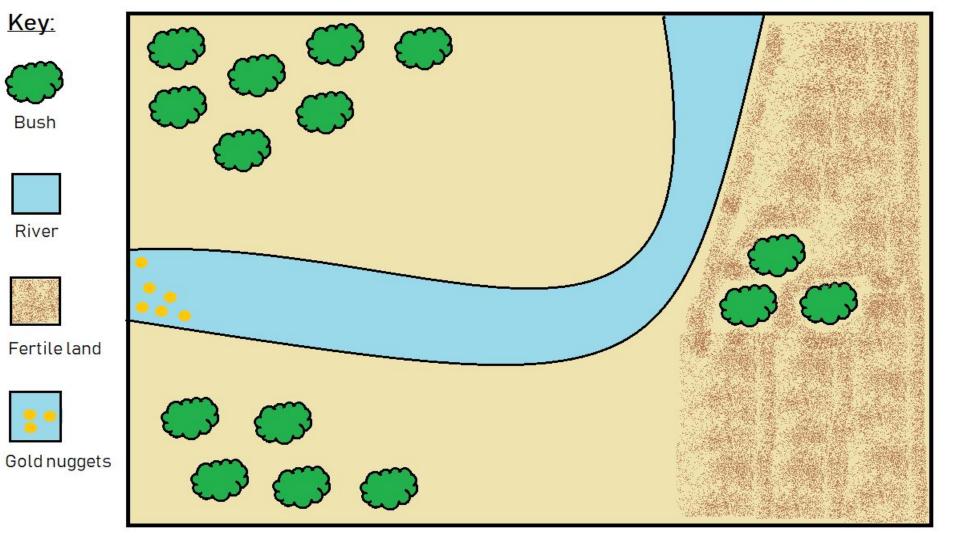


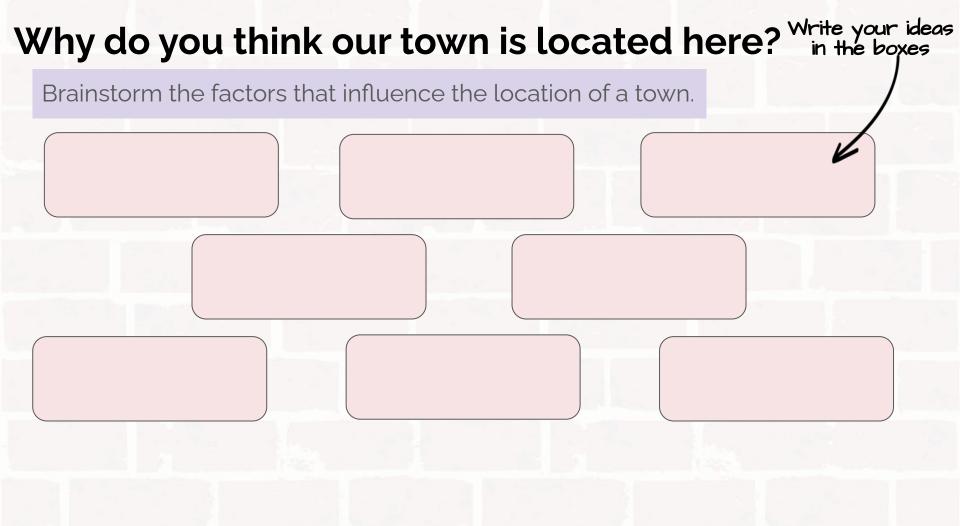
Find 3 differences you noticed between Canberra and your town's temperature data.

#### Map of the town

- On the **next slide** is a map of the town site.
- Use the key on the map to look at the resources the site has.







#### What should we build in the town?

You could ask about their hobbies, places they visit, schools, museums, hospitals etc.

Design a survey to find out what people want in their town. Ask 5 people their opinions. What questions will you ask them?

Question	Response 1	Response 2	Response 3	Response 4	Response 5
1. What hobbies do you have?					
2.					
3.					
4.					
5.					

#### Going further with surveying



Create a graph showing the results of your survey.

The graphs could be:

- **★** Bar charts
- ★ Pie charts

You could use <u>Google sheets</u> to do this.



Scan the QR code or enter the URL for to view a video that shows how to do this on Google sheets



https://www.youtube.com/ watch?v=7vNLa9liJkY

# Survey results

Question:	My answer:
1. What did you find out from your survey?	
2. Were there any results that surprised you?	
3. What do you think are the most important things to have in a town?	
4. Some towns have rules about what can be built or how it will look. This preserves history of old sites and buildings and protects wildlife. What rules will you have?	

#### Town planning

- Add symbols to the town map on the following page to show where you will build.
- You can use the symbols below or you can find or make your own.
- Consider the effect on the environment and how best to use the town's natural resources.



Add a <u>**key**</u> to your map:

#### **Building homes for your town**



Build a net to design a home.

Add labels showing the sizes of each room. Here is an example to help you:

	Living room	Kitchen	itchen I be		12m
5m	Bedroom 1	Bedroom 2		Bathroom	

# My home design

Design your home on this page:

### My home design

#### After you design your home, answer these questions.

Question	My answer
1. What is the shape of your house?	
2. What is the length of your house (in metres)?	
3. What is the width of your house (m)?	
4. Calculate the perimeter of your house (m)	
5. Calculate the area of your house (m²).	

#### My home design

- Choose one room in your house to furnish.
- Create a net for your room on the following slide and cut out these icons or your own icons as furniture.



# My home design

Design your net for a room and furnish it on this slide.



# How will the town be powered?





#### Renewable

Renewable energy is a natural source of energy that will never run out.

Sources such as **wind**, the **Sun** and **water** are renewable energy sources that can be used to create **electricity**.

#### Non-renewable

Non-renewable energy is also known as fossil fuels. Much of the world's energy is produced by burning fossil fuels such as **coal**, **oil** and **gas**.

These natural resources were formed from the remains of plants and animals that died millions of years ago.

Non-renewable energy: fossil fuels

Scan QR code or enter URL to view <u>this website</u>

https://www.bbc.co.uk/bitesize/guides/zggk87h/revision/1



Scan QR code or enter URL to watch <u>this video</u>

https://www.youtube.com/watch ?v=zaXBVYrgljo



Use this information to complete the table below

Question:	My answer:
1. Name 3 fossil fuels	
2. How was coal formed?	
3. How were oil and gas formed?	
4. Fossil fuels are finite resources. What does this mean?	
5. What are the problems with fossil fuels?	

### Fossil fuels and carbon



Carbon is contained in fossil fuels. When we burn fossil fuels the carbon is released. Watch this video then write a story imagining you were a carbon atom! Where do you go? What effects do you have?



Scan the QR code or enter the URL for to view the video



https://www.youtube.com/watch?v=2Jp1D1dzxj8

## Renewable energy

Scan QR code or enter URL to view this website

https://arena.gov.au/what-is-renewable-energy/



Scan QR code or enter URL to watch <u>this video</u>

https://www.cnbc.com/video/20 19/11/28/who-is-leading-in-rene wable-energy.html



Use this information to complete the table below



Type of energy	Example of a country it's used in





https://www.bbc.co.uk/bit esize/guides/zggk87h/re vision/3 Scan the QR or enter the URL for more information on Wind Power

Insert image here

How does wind power work?

Advantages	Disadvantages
*	*
*	*

My opinion on wind power is:





https://www.bbc.co.uk/bitesize/ guides/zggk87h/revision/4 Scan the QR or enter the URL for more information on hydropower

Insert image here

How do you get energy from water?

Advantages	Disadvantages
* * *	* *

My opinion on water energy is:



# Geothermal



scan the QR or https://www.bbc.co.uk/bitesiz enter the URL for e/guides/zggk87h/revision/5 more information on aeothermal energy

Insert image here

How does geothermal energy work?

Advantages	Disadvantages
* * *	* *

My opinion on geothermal energy is:



Insert image here





https://www.bbc.co.uk/bitesiz e/guides/zggk87h/revision/6 Scan the QR or enter the URL for more information on Solar energy

How does solar power work?

Advantages	Disadvantages
*	*
*	*

My opinion on solar power is:



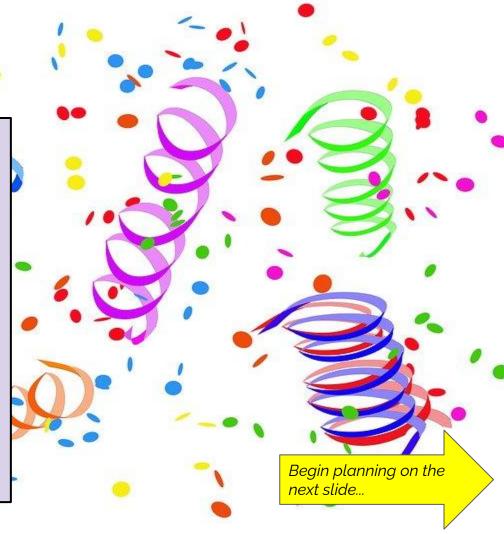


Write a paragraph explaining which energy source you have chosen to power your town. Include the advantages of this resource and why you chose it over the other options.

## Town party planning

It's now time to celebrate and welcome citizens to your great town. Several things need to happen if you plan to hold a successful event:

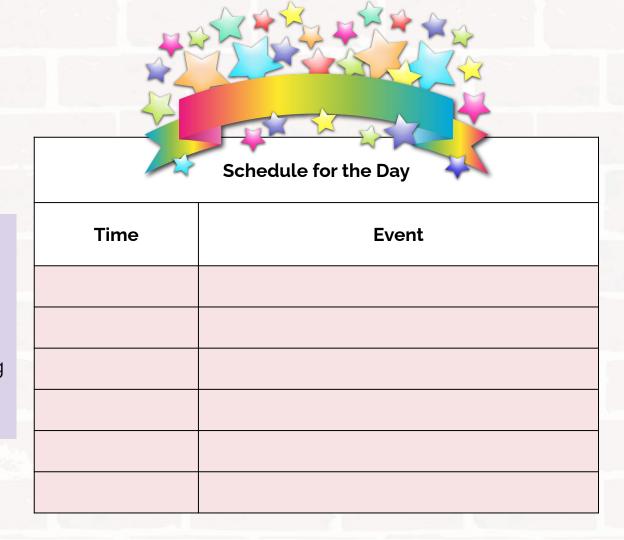
- Prepare an itinerary or schedule for the festivities happening on the day
- 2. Develop a budget for the event
- 3. Invite people to attend the event.



## **Itinerary**

What events or types of entertainment are being offered at the Town Party?

Write the proposed schedule here and how long each activity is expected to last.



## **Budget - food**

Total spend on food = \$

You have a total budget of \$5,000 for food and entertainment and can invite 100 guests.

Item	Cost per person	Number required	Total cost
Cupcakes	\$1		
Brownies	\$1.50		
Sandwiches	\$1.25		
Pies	\$2		
Fruit	\$0.50		
Juice	\$0.75		
Water	\$0.10		

## **Budget - entertainment**

Total budget = \$5000

Total spend on food = \$

Total spend on entertainment = \$

Total spend = \$

Item	Cost	Number required	Total cost
Face painter	\$250		
Bouncy castle	\$750		
Ferris wheel	\$2000		
Fireworks	\$1500		
Live band	\$1000		
Dog show	\$50		

# Create your invitation

Use the next blank slide to design the invitation you will send for the party.

#### You should include:

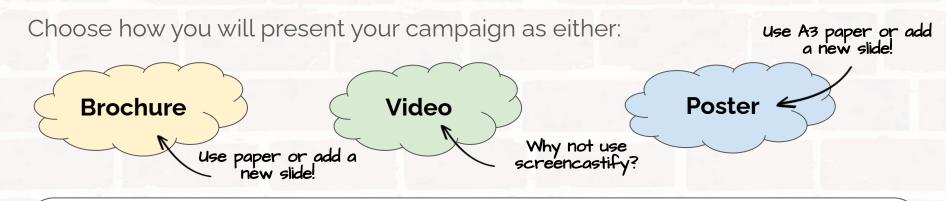
- ★ Date and time of the party
- ★ Why we are having a party
- **★** Events
- ★ Food and drink
- ★ Any special guests
- ★ Location
- ★ Dress code



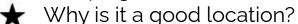
# Party invitation:

## Advertising the town

For your final task you need to create an advertising campaign to make people want to visit or move to your town.



#### Your campaign should include:



What jobs can you do there?  $\star$  Is housing affordable?

What are the schools like?

★ What can you do in the town?

★ What is the lifestyle like?

# Well done!

You have finished your adventure and built a town.



## Information for teachers:

To inform your planning and assessment, the following slides detail areas of the curriculum that are covered by completing this module, 'Building a Town'.

- Year 5 English and Science
- Year 5 Maths
- Year 5 HASS
- Year 6 English and Science
- Year 6 HASS
- > Year 6 Maths
- Year 5&6 Technologies and Arts



English	Year.5.80	Analyses and explains literal and implied information from a variety of texts
Year 5	Year.5.85	Creates imaginative, informative and persuasive texts for different purposes and audiences
	Year.5.86	Makes presentations which include multimodal elements for defined purposes
	Year.5.89 Selects specific vocabulary and uses accurate spelling and punctuation	
	Year.5.90	Edits work for cohesive structure and meaning

Science Year.5.374 Constructs tables and graphs to organise data and identifies patter		Constructs tables and graphs to organise data and identifies patterns in the data	
Year 5	Year.5.375	Compares patterns in data with predictions when suggesting explanations	



Maths	Year.5.225	Solves simple problems involving the four operations using a range of strategies	
Year 5	Year.5.229	Explains plans for simple budgets	
	Year.5.230	Connects three-dimensional objects with two-dimensional representations	
	Year.5.231	Describes transformations of two-dimensional shapes and identifies line and rotational symmetry	
	Year.5.232 Interprets different data sets		
	Year.5.241z	Poses questions to gather data, and constructs data displays appropriate for the data	



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HASS	Year.5.565	Explains the characteristics of places in different locations at local to national scales
Year 5	Year.5.568	Identifies the importance of values and processes to Australia's democracy and describes the roles of different people in Australia's legal system
	Year.5.569	Recognises that choices need to be made when allocating resources
	Year.5.570	Describes factors that influence choices as consumers and identifies strategies that can be used to inform these choices
	Year.5.571	Describes different views on how to respond to an issue or challenge
	Year.5.573	Locates and collects data and information from a range of sources to answer inquiry questions
	Year.5.574	Examines sources to determine purpose and to identify different viewpoints
	Year.5.575	Interprets data to identify and describe distributions, simple patterns and trends, and to infer relationships, and suggest conclusions based on evidence



English	Year.6.91	Understands how the use of text structures can achieve particular effects
Year 6		
	Year.6.91	Understands how the use of text structures can achieve particular effects
	Year.6.97	Shows how specific details can be used to support a point of view
	Year.6.99	Creates detailed texts elaborating on key ideas for a range of purposes and audiences

Science	Year.6.378	Analyses requirements for the transfer of electricity and describes how energy can be transformed from one form to another when generating electricity
Year 6		
	Year.6.381	Explains how scientific knowledge helps us to solve problems and informs decisions and identifies historical and cultural contributions

HASS	Year.6.604	Describes, compares and explains the diverse characteristics of different places in different locations from local to global scales
Year 6		
	Year.6.606	Explains the importance of people, institutions and processes to Australia's democracy and legal system
	Year.6.611	Explains different views on how to respond to an issue or challenge
	Year.6.613	Locates and collects useful data and information from primary and secondary sources
	Year.6.615	Interprets data to identify, describe and compare distributions, patterns and trends, and to infer relationships, and evaluate evidence to draw conclusions
	Year.6.617	Organises and represents data in a range of formats, including large- and small-scale maps, using appropriate conventions
	Year.6.618	Collaboratively generates alternative responses to an issue, uses criteria to make decisions and identifies the advantages and disadvantages of preferring one decision over others
	Year.6.619	Reflects on learning to propose action in response to an issue or challenge and describes the probable effects of the proposal



Maths	Year.6.252	Interprets timetables
Year 6	Year.6.256	Interprets and compares a variety of data displays including those displays for two categorical variables
	Year.6.257	Interprets secondary data displayed in the media

Techr	nologies	Y5/6.3477	Collects and validates data from a range of sources to assist in making judgements
Year g	5 & 6		

The Arts	Y5/6.3500	Structures elements and processes of arts subjects to make artworks that communicate
Year 5 & 6		meaning