Map Examples for Primary School

Simply Better Thinking
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Rationale Overview

Rationale utilizes a logical structure with colour and images to provide the visual framework to build critical thinking and communication skills.

There are two invaluable map formats for primary school students. These provide the tool for organizing information and structuring ideas and reasoning.

1. GROUPING MAPS provide pupils a tool to gather, group and structure information and ideas. They are one step further from brainstorming because they show the relationship between categories and sub categories.

2. REASONING MAPS scaffold the thinking process in a clear and logical manner.

Higher level primary students can develop their communication and writing skills by using the Rationale ESSAY PLANNER. This provides a visual template with exported prose to assist with writing clear and reasoned paragraphs or short essays.

This guide will provide you with some Rationale examples to inspire your critical thinking classroom. We would love to hear how you go, you can contact us at education@austink.com if you have any comments, questions or feedback.
Grouping maps categorize data into a logical structure. This helps you sort your information and determine how different things are related to one another.

- The most general item or category goes here - this is the central theme that unites all the information.
- The items in this row break up the subcategory by providing examples of it.
- This row is a type or a further refinement of the general theme above.
Here is an example of how grouping maps can be built.

Step 1: Brainstorm

What can you buy at the supermarket?

- Mars Bar
- Apples
- Jelly
- REV milk
- Peas
- Brie
- Sponge Cake
- Carrots
- Maltesers
- PURA milk
- Cheddar
Step 2: Group

Fresh Foods
- Apples
- Peas
- Bananas
- Carrots

Sweet Foods
- Jelly
- Mars Bar
- Maltesers
- Sponge Cake

Dairy
- REV milk
- PURA milk
- Brie
- Cheddar
Step 3: Classify

Dairy
- Milk
- Brie
- Cheddar

Fresh Foods
- Carrots
- Peas
- Bananas
- Apples

Vegetables

Fruit

Sweet Foods
- Desserts
- Chocolate
- Sponge Cake
- Jelly
- Mars Bar
- Maltesers
Step 4: Organise
Some more examples of grouping maps...
Numbers

Even Numbers
- Are Multiples of 2
- End in 2, 4, 6, 8 or 0

Odd Numbers
- Are not multiples of 2
- End in 1, 3, 5, 7, or 9

Synonyms

Good
- Great
- Terrific
- Wonderful
- Lovely
- Fantastic
- Splendid

Bad
- Awful
- Horrid
- Atrocious
- Dreadful
- Beastly
- Horrible
Reasoning Maps

Reasoning maps allow you to structure arguments for or against a position. You can also use basis boxes to show different forms of evidence or sources of information.

- **Position**: The main issue; to be accepted or rejected.
  - **Reason**: Information which directly supports the Position.
  - **Objection**: Information which counts against the Position.
  - **Reason**: Information backing up the reason above.
  - **Objection**: Information which counts against the reason above.
  - **Reason**: Information backing up the objection immediately above.
  - **Objection (Rebuttal)**: Information which counts against the objection immediately above.

Examples:
- **Example**: Provide an example supporting the claim.
- **Web**: Provide details of the web page or site.
- **Personal Experience**: Describe the experience you had which leads you to support the claim.

Add as many reasons or objections as you need to the map by dragging them from the Reasoning Tab in Rationale and dropping them where you need them.
Here is an example of how reasoning maps can be built.

**Step 1**
Using a 'position' box, type in the topic to be discussed.

**Position**
Everyone should eat breakfast.

**Step 2**
Ask pupils to think of a reason to support this position (claim).

**Breakfast is the most important meal of the day.**

**because**
Breakfast is the most important meal of the day.
Breakfast is the most important meal of the day. Breakfast provides you with the energy that the body needs to start the day well.

Position
Everyone should eat breakfast.

Because
Breakfast is the most important meal of the day.

Step 3
Now discuss as a group a reason to support the claim above.

Position
Everyone should eat breakfast.

Because
Breakfast is the most important meal of the day.

Step 4
Now discuss an objection to the position.

Position
Everyone should eat breakfast.

But
Sometimes you’re not hungry at breakfast time.

Because
Breakfast provides you with the energy that the body needs to start the day well.
Step 5
Now add an objection to the objection. (This is called a rebuttal and the box will automatically change to orange when connected to an objection box.)

Step 6
Discuss where your evidence is from and use basis boxes to show your sources of information.

Everyone should eat breakfast.

Sometimes you're not hungry at breakfast time.

Breakfast is the most important meal of the day.

It's good for you even if you're not hungry.

Breakfast provides you with the energy that the body needs to start the day well.

Expert Opinion
Dr. G. Hall from the Institute of Healthy Eating, Australia

Web
"Why Breakfast?" by Sarah Lane
www.classbrain.com
Step 7
Evaluate the argument. Start by discussing how reliable the evidence is and work your way up each branch of the map. Finally, decide whether you will accept or reject your position based on the evidence you have. Maybe you will decide that more evidence is needed before you accept or reject the position.

Everyone should eat breakfast.

Sometimes you're not hungry at breakfast time.

but

however

It's good for you even if you're not hungry.

because

Expert Opinion
Dr. G. Hall from the Institute of Healthy Eating, Australia

because

Breakfast is the most important meal of the day.

because

Breakfast provides you with the energy that the body needs to start the day well.

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Breakfast is the most important meal of the day.

because

Breakfast provides you with the energy that the body needs to start the day well.

Web
"Why Breakfast?" by Sarah Lane
www.classbrain.com
1. We should drink lots of water.
   - Water helps us digest food.
   - Water is needed to keep your body temperature constant.
   - Water helps get rid of waste products.

   - because
   - because
   - because

2. Water helps us digest food.
   - because Water carries around digestive enzymes, which break down food.

3. Water is needed to keep your body temperature constant.
   - because Your body uses water when you sweat.


---

Images can be used as a background to your map. Here is an example of how an image can be used in the presentation of a map.
Wearing uniforms is a good idea

- People focus on their work when they wear a uniform.
  - People are not thinking about how they look.
  - People are not spending time wondering what to wear.

- People look the same.
  - People cannot show their individuality.

- Uniforms are expensive.
  - Buying clothes is expensive.
  - Our school winter uniform costs $424.

- but
  - however
  - because
We should eat fruit everyday.

Fruit is good for your health.
- Fruit has vitamins and minerals which are good for you.
- Fruit is not fattening.

Fruit is expensive.
- Bananas are $5 each.
- Oranges are $3 a bag

Not all fruit is expensive.
Logging companies are cutting down too many trees.

because

Animals die when the trees they live in are cut down.

because

We need the trees to take in carbon dioxide and give out oxygen.

because

We need oxygen to breathe.

because

We need to remove carbon dioxide to stop global warming.

because

We use wood for many different purposes.

because

The logging companies believe it is an important industry.

because

Logging provides many jobs.

because

Logging contributes a lot of money to the economy.

because

Rainforests should not be logged.

because

We can replace the trees we cut down.

because

This won't replace old growth rainforest.

Web

31 million hectares is cut down each year according to the Worldwide Conservation Fund

www.conserveworld.org

Quote

"Half to three quarters of the world's rainforest is being cut down for paper", The Rainforest Report by Dr. Bob Trees
Rationale has several essay templates. When the templates are complete the map can be exported to a word document that puts it in a basic essay format.

You must brush your teeth every morning and evening because it is necessary to get rid of plaque in your teeth.

This map is constructed on the 'argumentative essay' template.

I have no time to brush my teeth but it only takes 3-4 minutes to brush your teeth properly.

You must brush your teeth every morning and evening because brushing your teeth will give you fresh smelling breath because the minty smell of the toothpaste will hide the smell of bad breath.

because too much plaque can cause holes to appear in your teeth however
You must brush your teeth every morning and evening. There are two main reasons supporting this position, and the main objection to it can be rebutted.

The first reason is that it is necessary to get rid of plaque in your teeth, since too much plaque can cause holes to appear in your teeth. [You can put a relevant example or an explanation of this here, or provide further evidence for it. Do you have a source, reference or a quote you can use?]

The second reason to think that you must brush your teeth every morning and evening is that brushing your teeth will give you fresh smelling breath. This is because the minty smell of the toothpaste will hide the smell of bad breath. [You can put a relevant example or an explanation of this here, or provide further evidence for it. Do you have a source, reference or a quote you can use?]

On the other hand, a consideration against the idea that you must brush your teeth every morning and evening is that I have no time to brush my teeth. [If you can think of someone who has made this claim refer to him/her. You may even provide a quote.] This objection is not convincing, however, because it only takes 3-4 minutes to brush your teeth properly. [You can put a relevant example or an explanation of this here, or provide further evidence for it. Do you have a source, reference or a quote you can use?]

Based on this reasoning it is clear that you must brush your teeth every morning and evening. [Can you think of any changes in circumstances that would make you reconsider your position? Describe them and explain why and how your position might change.]

I have corrected spelling, grammar and punctuation. □ I have made sure that all my sentences make sense.
□ I have checked with my teacher that this essay is appropriate for this subject.
□ I have followed the relevant guidelines to complete my essay.
□ I have typed my essay title and my name at the top of the page.
□ I have fixed the formatting and deleted the guidance information. (If you're working in Microsoft Word, to restore everything to the normal font press Ctrl+A then Ctrl+Spacebar on your keyboard.)
Position
There should be more public transport

Objection
it would cost the Government a lot of money

Reason 1
there isn't enough public transport.

Reason 2
there are too many cars on the road

Reason 3
it would be better for the environment

Objection
but

Reason 1
because
Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Reason 2
because
Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Reason 3
because
Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

but

Objection
however

Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Position
There should be more public transport

Objection
it would cost the Government a lot of money

Reason 1
there isn't enough public transport.

Reason 2
there are too many cars on the road

Reason 3
it would be better for the environment

Objection
but

Reason 1
because
Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Reason 2
because
Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Reason 3
because
Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

but

Objection
however

Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

Support for Reason 1
because
Support for Reason 1
because
Support for Reason 3
because

This map is constructed on the 'letter to the editor' template.
Dear Sir / Madam,

I am writing to contend that **There should be more public transport.** This is contrary to the view voiced by ... [provide details of the person/s taking the contrary position and details as to where you have heard or read it] The objection raised by supporters of this view is that it would cost the Government a lot of money. I reject this claim because spending that money is good for everyone’s future. [You can put a relevant example or an explanation of this here, or provide further evidence for it.]

Furthermore, there are three strong reasons to support my view that **There should be more public transport**. The first reason is that there isn’t enough public transport, since many buses and trains are overcrowded. [You can put a relevant explanation of this here, or provide details of the basis for this claim.] In addition, this reason is supported by the fact that there are places with no access to public transport. [You can put a relevant example or an explanation of this here, or provide further evidence for it, such as an expert opinion, statistic or quote.]

The second reason is the obvious view that there are too many cars on the road. [You can put a relevant example or an explanation of this here, or provide further evidence for it.]

Finally, it is clear that **There should be more public transport** given it would be better for the environment. This reason is supported by the contention that public transport produces less pollution than cars. [You can put a relevant example or basis for the claim here.]

I restate my position that **There should be more public transport**. I urge you to also adopt this view. [What would you like people to do about this? Recommend a course of action in keeping with your position that the editor or readers can take to resolve the issue to your satisfaction.]

Yours sincerely,
They share similar physical features

Both Ron and Dumbledore are auburn-haired, tall, thin and long-nosed

Dumbledore knows things that only Ron, Hermione or Harry should know

Both have a great love for sweets

Ron is always eating sweets while Dumbledore uses the names of sweets as passwords

Dumbledore and Ron are magical wizards who can do anything

They appear at the same time

Dumbledore is Ron Weasley
Bollywood films are great

They have singing, dancing and bright costumes

They have good looking actors

Most Bollywood films are over 3 hours

They're not too long if they are entertaining

They're too long

Bollywood films are fun to watch

because

because

because

but

however
The Critical Thinking Process

1. Gather ideas

Issue: Windfarms - To be or not to be?

- Environmental audits have shown the likelihood of wildlife being injured by windfarms is rare
- Windfarms do not add to greenhouse gases
- Windfarms are not the power solution for the twenty first century
- Coal, oil & gas are less expensive sources of energy than wind power
- Windfarms do not disturb wildlife

- Wind power will be a cheaper energy source once the infrastructure is in place
- Windfarms are more environmentally friendly than coal, oil and gas alternatives
2. Structure ideas.

Windfarms are the power solution for the twenty first century

- Windfarms are more environmentally friendly than coal, oil and gas alternatives
- Windfarms do not disturb wildlife
- Coal, oil & gas are less expensive sources of energy than wind power
- Windfarms do not add to greenhouse gases
- Environmental audits have shown the likelihood of wildlife being injured by windfarms is rare
- Wind power will be a cheaper energy source once the infrastructure is in place

The boxes can be colour coded to help group similar ideas.
3. Create an argument

Windfarms are the power solution for the twenty first century

because

Windfarms are more environmentally friendly than coal, oil and gas alternatives

because

Windfarms do not add to greenhouse gases

Quote

Invest in Victoria, News Archive-Wind power cutting more greenhouse gases.
The research shows clearly that the production of electricity from wind results in less burning of fossil fuels. A typical two megawatt wind turbine in Victoria will reduce greenhouse emissions by about 6,000 tonnes per year. (Mr Thwaites)

because

Windfarms do not disturb wildlife

because

Environmental audits have shown the likelihood of wildlife being injured by windfarms is rare

Quote

Defenders of Wildlife, Renewable energy principals & recommendations. ‘Bird and bat mortality can usually be kept to a minimum by ensuring appropriate siting of the windfarm, selecting appropriate turbine types and arrangement, and by using tower and turbine designs that cause the least mortality.’

but

Coal, oil & gas are less expensive sources of energy than wind power

however

Wind power will be a cheaper energy source once the infrastructure is in place

Publication

Wind Industry Developments, Wind Farm Basics -Fact Sheet 2004

Basis boxes can now be put on the map to show the source of the information.
Windfarms are the power solution for the twenty first century

Windfarms are more environmentally friendly than coal, oil and gas alternatives

because

Windfarms do not add to greenhouse gases

because

Windfarms do not disturb wildlife

because

Environmental audits have shown the likelihood of wildlife being injured by windfarms is rare

but

Coal, oil & gas are less expensive sources of energy than wind power

however

Wind power will be a cheaper energy source once the infrastructure is in place

The position can now be evaluated by deciding the strength of each reason or objection. Then, by weighing up the reasons against the objections the main position can be accepted or refuted.
5. Transform your map into a draft essay.

**Essay Preview**

**State your position**

Your position is your view or opinion on the issue you are considering. State your position clearly in a single sentence. More help

**Windfarms are the power solution for the twenty first century.** There are two main reasons supporting this position, and the main objection to it can be rebutted.

The first reason is that Windfarms are more environmentally friendly than coal, oil and gas alternatives, since Windfarms do not add to greenhouse gases.

The second reason to think that Windfarms are the power solution for the twenty first century is that Windfarms do not disturb wildlife. This is because Environmental audits have shown that the likelihood of wildlife being injured by wind farms is rare.

On the other hand, a consideration against the idea that Windfarms are the power solution for the twenty first century is that Coal, oil & gas are less expensive sources of energy than wind power.
Windfarms are the solution for the twenty first century. There are two main reasons supporting this position, and the main objection to it can be rebutted.

The first reason is that windfarms are more environmentally friendly than coal, oil and gas alternatives, since windfarms do not add to green house gases.

The second reason to think that windfarms are the solution for the twenty first century is that Windfarms do not disturb wildlife. This is because Environmental audits have shown that the likelihood of wildlife being injured by wind farms is rare.

On the other hand, a consideration against the idea that Windfarms are the solution for the twenty first century is that Coal, oil & gas are less expensive sources of energy than wind power. This objection is not convincing, however, because Wind power will be a cheaper energy source once the infrastructure is in place.

Based on this reasoning it is clear that Windfarms are the solution for the twenty first century.
Rationale: www.RationaleOnline.com

Rationale is a program of REASONINGLAB

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