Futurelab Thinking Guides

Think and work through issues, topics or questions, to help shape, define and focus ideas.

www.futurelab.org.uk
This pack provides a series of ready-made interactive 'thinking guides' or 'frameworks' which can support students' projects and research. Thinking guides support the thinking or working through of an issue, topic or question and help to shape, define and focus an idea and also support the planning required to investigate it further. These thinking guides can be used as a basis for whole class discussion, or emailed to individuals or groups to complete. They can also be used as a presentation tool to share your findings and thinking with others.

With this pack you can:
- use our ready-made thinking guides
- make a new thinking guide from scratch
- use it to set class projects
- print them out for each student
- change and customise thinking guides, you can add or change text, shapes, images etc.
- as a teacher, you can set up the sequence that you want the thinking guide to be revealed in, so that you can stage the thinking activity
- you can present your project
- you can send your thinking guide to a whole group of people
- work in groups on the same thinking guide.

These thinking guides have been created due to popular demand as an editable and printable resource that can be used easily in the classroom (as well as other spaces where guides are needed to help structuring thinking and planning). They build on Futurelab's work with young people and teachers to scaffold enquiry and project work.

The guides build on Futurelab's Enquiring Minds programme. Enquiring Minds was a three-year research and development programme, run by Futurelab and funded by Microsoft. The project developed a distinctive approach to teaching and learning that takes seriously the knowledge, ideas, interests and skills that students bring into schools and enables young people to take more responsibility for the content, processes, and outcomes of their learning. For more details about the work and for free guides and handbooks visit www.enquiringminds.org.uk.
Map your ideas
Review plans

This activity can be used to analyse or appraise anything in a structured way.

Student name:
Topic:
Anticipate issues

Use it to work backwards (from the right box to the left box) from an imagined perfect future to a feasible and possible present.

1) Envision a perfect future
2) Now describe that perfect future with fictional examples
3) Now step back to how this could be realistically achieved
4) Now step back to what might be possible now
A tool for creating lots of ideas in response to a broad issue or problem and then turning those ideas into actions.
Possible/probable/preferable futures

Think about the way in which a particular theme or issue may develop in the future.

Student name: 
Topic:

Future developments

Future developments

Future developments
Solve problems
Knowing trees

Helps you think about a question or problem and to identify sources or evidence to support your ideas.

- Source / proof / evidence
- Where should I look?
- Breaking it into pieces (mini-ideas or micro-questions)
- Idea or question

Identify where you need to look for relevant information

Student name:  
Topic:
### Is / is not

Scope out the boundaries of a problem or analyse a situation by clearly stating what it is and what it is not.

<table>
<thead>
<tr>
<th>THE SITUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is...</td>
</tr>
<tr>
<td>Is not...</td>
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</table>
Assess a problem from a different perspective or stimulate new thinking when you are stuck in a rut.

**THE PROBLEM**
(Add the issue here... e.g. the room is dark)

**OBVIOUS WAY OF LOOKING AT IT**
(Add the obvious way of looking at it e.g. add more light)

**THE REVERSAL**
Choose a new way to approach the issue: opposite viewpoint, inside vs. outside, male vs. female etc. (e.g. remove the dark)

**Idea 1**

**Idea 2**

**Idea 3**

Student name:
Topic:
**Using the essence**

Create new ideas by getting to the heart of the issue and then looking elsewhere whilst retaining the essential qualities.

<table>
<thead>
<tr>
<th>What's the essence of the issue? (in one word)</th>
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</thead>
<tbody>
<tr>
<td>What is the heart of this situation? What is it all about? What are its essential qualities? What is its core of being?</td>
</tr>
<tr>
<td>(e.g. You're looking for an idea to make the queues at theme parks less boring. You might identify the essence of the issue as 'waiting'.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What else has this as its essence?</th>
<th>Characteristic 1</th>
<th>Characteristic 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain #1 (e.g. a doctor's waiting room, or airport lounge)</td>
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</table>

<table>
<thead>
<tr>
<th>What else has this as its essence?</th>
<th>Characteristic 1</th>
<th>Characteristic 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain #2</td>
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</table>

**Apply ideas/characteristics to the original issue**

(e.g. things to read, TV, arcade machines, etc?)

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Student name:  
Topic:  

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Digging up roots

This guide is about exploring a problem by starting with lots of information and gradually digging down to get to the 'root' of the problem.

Sources

The topsoil
What are the similarities in these sources and data?

The dirt
What are the differences in these sources and data?

The compost
What do we know now?

Range of data

Root of the problem

Student name: Topic:
Explore
Futures Wheel

Think through the consequences and impacts of an event. What are the knock on effects?

ADD EVENT
e.g. Rise in cost of oil

Add consequence
e.g. rise in petrol prices

Add consequence
e.g. fewer car journeys

Add consequence
e.g. less pollution

Student name:
Topic:
Question everything you read, hear and see.

**Questioner:**
Your job is to question your topic. Add in any further questions you have about things you are discovering. Sort your answers so you can share them with the group.

Student name:  
Topic:
Compare and contrast

Make comparisons between two topics. Establish what is unique and what is similar about each one.

**TOPIC:** Add topic name here

What is different about this?

What is similar about them?

**TOPIC:** Add topic name here

What is different about this?

Student name:

Topic:

I think that…
**A day in the life**

Seeing things as they are experienced.

Use this to create 'user profiles'. Storyboard a typical day - to think through the experiences of someone or something. A useful tool to get a picture of your audience or customers if you are developing a new product or service.

<table>
<thead>
<tr>
<th>Who's life...?</th>
<th>[upload picture - optional]</th>
<th>Research notes</th>
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</thead>
<tbody>
<tr>
<td>7am-9am</td>
<td>9am – 12 noon</td>
<td>12 noon – 3pm</td>
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<tr>
<td>3pm-6pm</td>
<td>6pm-9pm</td>
<td>9pm – 1am</td>
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</tbody>
</table>

Student name:  
Topic:
Analyse
Tracking an enquiry

Plan your enquiry. Establish the big questions. Identify your likely sources. Document the facts.

### FOCUS OF ENQUIRY

### BIG QUESTIONS

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
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### Sources of evidence

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### Facts / evidence

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Facts or opinions

Sort out the facts from the opinions about a particular topic. Document what you agree/disagree with.

Opinions I agree with…

Opinions I disagree with…

Other opinions I have…

To explore further…
This thinking guide is useful for establishing what you want to know, then making sense of what you find out.

<table>
<thead>
<tr>
<th>What I want to know</th>
<th>What I found out</th>
<th>Why is it important?</th>
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I wonder if...
The Problem, Issue, Theme, Need

*Example: Want to design an environmentally friendly carrier bag...*

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<th>S</th>
<th>C</th>
<th>A</th>
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<tbody>
<tr>
<td><strong>What can be substituted?</strong></td>
<td><strong>What could be combined with something else – a blend, assortment etc.</strong></td>
<td><strong>What can be adapted?</strong></td>
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</tbody>
</table>

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<thead>
<tr>
<th>M</th>
<th>P</th>
<th>E</th>
<th>R</th>
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</thead>
</table>
| **What can be modified?**
- change meaning, colour, smell, form, shape | **What can be put to other uses?**
- new ways to use as is | **What can be eliminated?**
- waste | **What can be re-arranged?** |

**SCAMPER**

Analyse something according to the SCAMPER principle - what could be substituted, combined, adapted, modified, put to other uses, eliminated or rearranged?

**Student name:**

**Topic:**
Traffic lights

A thinking guide to analyse a particular situation - what changes would you make?

If you could make anything **stop**, what would it be?

Why?

If you could make anything **ready**, what would it be?

Why?

If you could make anything **go**, what would it be?

Why?
Different Perspectives
From a different angle…

Examine a topic through a variety of different subject lenses. Understand how knowledge changes dependent on the perspective from which it is viewed.

Student name: 
Topic: 

TOPIC / THEME / QUESTION

e.g. water
Thinking boxes

Analyse an object or topic from different perspectives: local, global and its place in history.

Task:
1) Describe the object
2) What it means to you
3) How it affects things locally
4) How it affects things globally
5) How it has changed in the past and future

Student name:
Topic:
Plus, minus, interesting

Evaluate an issue or idea by identifying its plusses, minuses and any interesting points.

<table>
<thead>
<tr>
<th>THE ISSUE</th>
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<tr>
<td><strong>Plus points</strong></td>
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Student name:

Topic:
Examine existing and new ideas

Investigate supporting evidence and conflicting views; then make your own new ideas.

<table>
<thead>
<tr>
<th>Inquiry question / statement</th>
<th>My hypothesis</th>
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New ideas:

Student name:
Topic:
Compass Rose

Examine a phenomenon, object or issue from a variety of perspectives.

Phenomenon, object, or issue

Natural

Technological

Environmental / Economic

Social

Student name:

Topic:
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Terms and Conditions

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