



The Good Reasoning TREE

Learn the Art of Argument

The Good Reasoning Tree is a powerful tool to help people learn about the art of argument. Step by step, it guides them through a process of thinking about a proposition and helps them to decide what they think about it.

Will Ord strongly believes that young people need to be taught how to think and communicate well for great learning, the quality of their relationships, and in their role as active citizens. The Good Reasoning Tree is just one of the many tools he shares with schools across the world.

“ The Good Reasoning Tree has taken our students’ thinking and writing to a whole new level. It’s invaluable. ”

Secondary school teacher
Oxfordshire

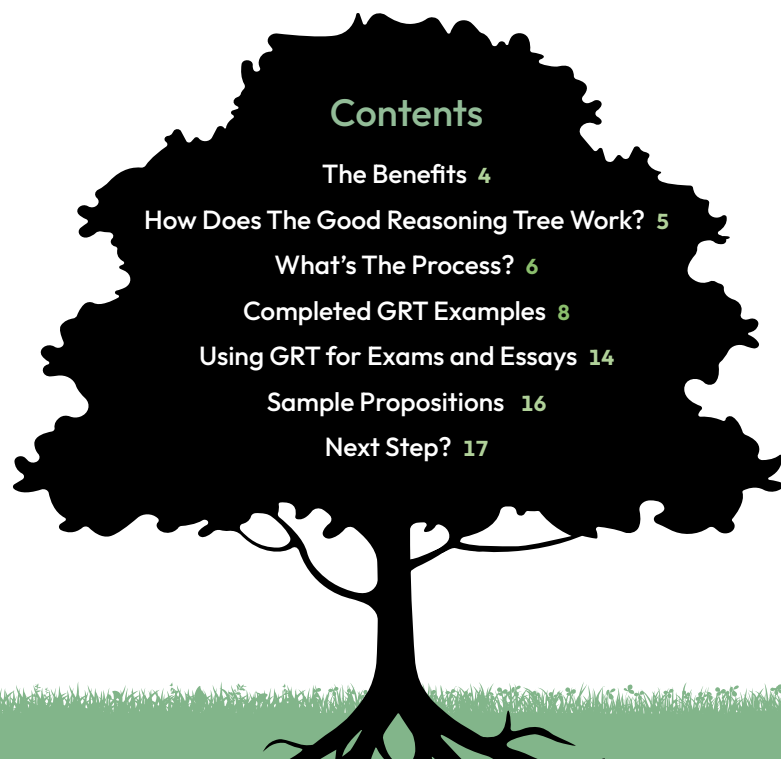
Will Ord

Don't just argue ... argue well!

Can Your Students Argue Well?

Anyone can share an opinion, but can they give good reasons and reliable evidence for it? Can they do so in a considerate way? Can they structure their ideas coherently and convincingly in exams and essays?

Arguments play a key part in our lives. They affect our relationships, our decision making and our ability to be responsible citizens. They are fundamental to the process of learning. But are children learning how to argue effectively in our schools? Are they learning to be critical, creative and collaborative thinkers?



The Good Reasoning Tree will help!

The Good Reasoning Tree (GRT) is a tool that can develop the art of argument very efficiently with your students.

It starts with a proposition, explores the reasons for and against it, weighs up a conclusion, and then considers the consequences. Most importantly, it makes the critical thinking process of an argument crystal clear.

It's also fun! The GRT invites collaboration and develops learners' affective skills as much as their critical and creative thinking. 'Being reasonable' needs to involve the head and heart. Are your students both reasoning and 'able to be reasoned with'?

Who Can Benefit From The Good Reasoning Tree?

Whether your students are 7 or 17, The Good Reasoning Tree is a highly adaptable activity. It comes in two versions (Basic and Advanced) so that you can easily adjust it to your context. It can be done by individuals, groups, as a class or as a challenging homework.

The following pages are full of ideas to help you build a more 'reason-able' world and boost great thinking across the curriculum. Enjoy experimenting with all of its potential!

Build a More 'Reason-able' World!

Empower people to:

- ⇒ make better decisions together
- ⇒ structure arguments effectively
- ⇒ improve critical and creative thinking skills
- ⇒ plan great essays or exam answers
- ⇒ prepare for debates or speeches
- ⇒ appreciate different perspectives
- ⇒ identify cognitive biases
- ⇒ develop better relationships
- ⇒ become better citizens

“Don't raise your voice,
improve your argument!”
Desmond Tutu

How Does The Good Reasoning Tree Work?

The Good Reasoning Tree (GRT) uses the analogy of a tree to organise critical and creative thinking in clear steps. It's a simple but very effective image for explaining how arguments work.

The Tree is a proposition that needs to be critically evaluated.

The Winds (reasons against) are trying to blow the tree down.

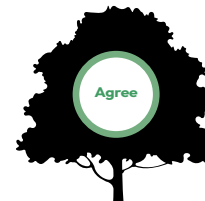
The Roots (reasons for) are trying to keep it standing up.

The Little Trees represent the conclusion, drawn from weighing up the reasons for and against:



Blown down

i.e. we disagree with the proposition and can articulate our reasoning clearly.



Standing upright

i.e. we agree with the proposition and can justify our conclusion.

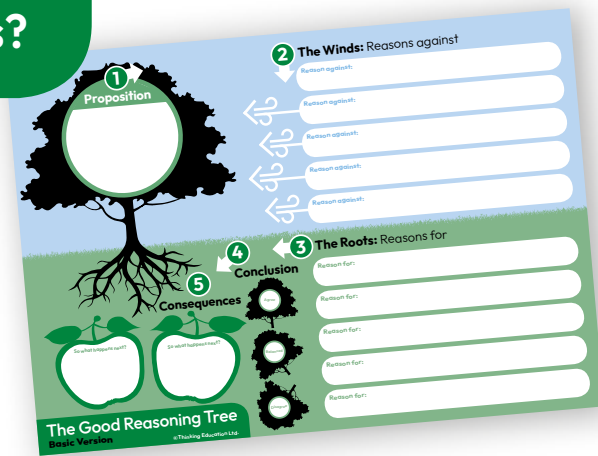


Bending over

i.e. we think that it's a 'closely balanced' argument and can explain why.

The Fruits represent the consequences. What could the outcomes of our conclusion be?

What's The Process?

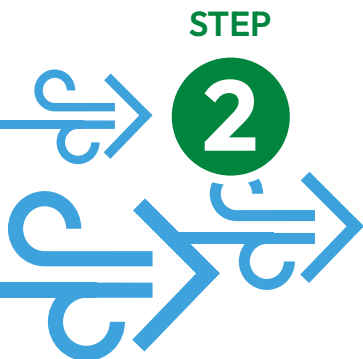


The Good Reasoning Tree: Basic Version



What's being proposed?

The leafy part of the tree represents the 'Proposition'. It could be a debating motion, an exam question, an opinion, an action, or a value that's held. For example, "16-year-olds should have the vote." For younger children, it might be: "Every school should have a zoo." A list of sample propositions covering a variety of topics, subjects and ages is included on page 16. They could be fun or serious. There are also sample A-level exam questions from actual exam papers (see page 15) to illustrate how GRT can be very useful in high-stakes contexts.



Reasons against

Everyone fills in the Winds which represent reasons against the proposition. They are trying to 'blow the proposition down'. How many reasons can students come up with? How would they phrase them succinctly? If more than five reasons are offered, they can just be added separately, or learners could choose the **strongest** five reasons to use.



Reasons for

Repeat Step 2 for the Roots. They represent reasons for the proposition, and try to keep the tree 'standing up'. It's important that everyone contributes to **both** the Winds and Roots in this process. Being challenged to think of both reasons for and against invites empathy, erodes cognitive biases, and exercises critical and creative thinking.



What's the conclusion?

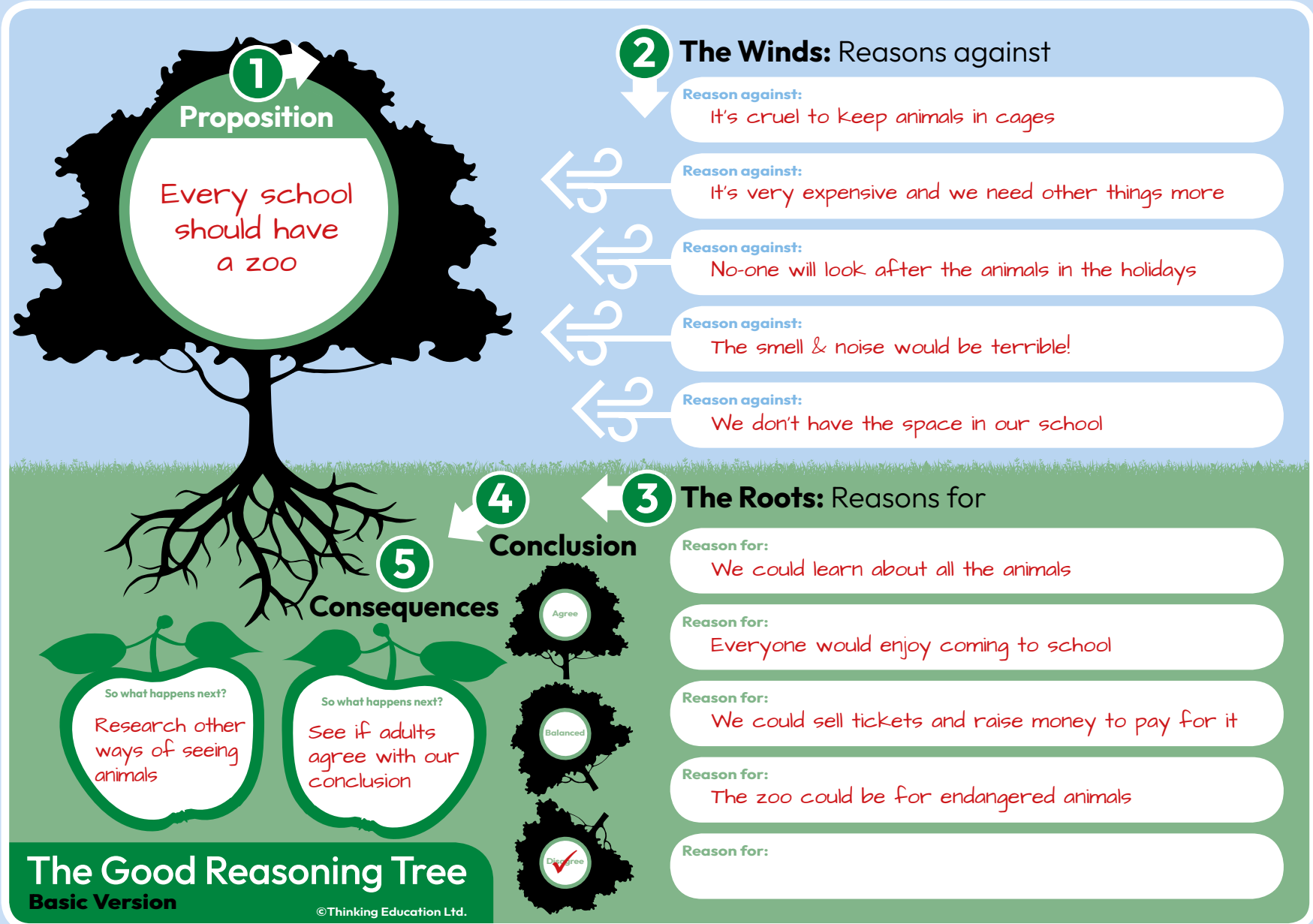
Reflect on the **strengths** and **number** of the Roots and the Winds. What do we conclude from weighing up the Roots and Winds? What happens to the tree? If the Roots are stronger than the Winds, tick the 'Agree' (upright) tree in the Conclusion area. This means we can agree with the Proposition and say why. If the Winds are stronger than the Roots, then tick the 'Disagree' tree that is blown over. If the Roots and Winds are fairly balanced, tick the 'Balanced' tree that is bending over. This means that it's hard to conclude either way. You could critically reassess the Roots and Winds to see if the balance can be tipped either way with new ideas.

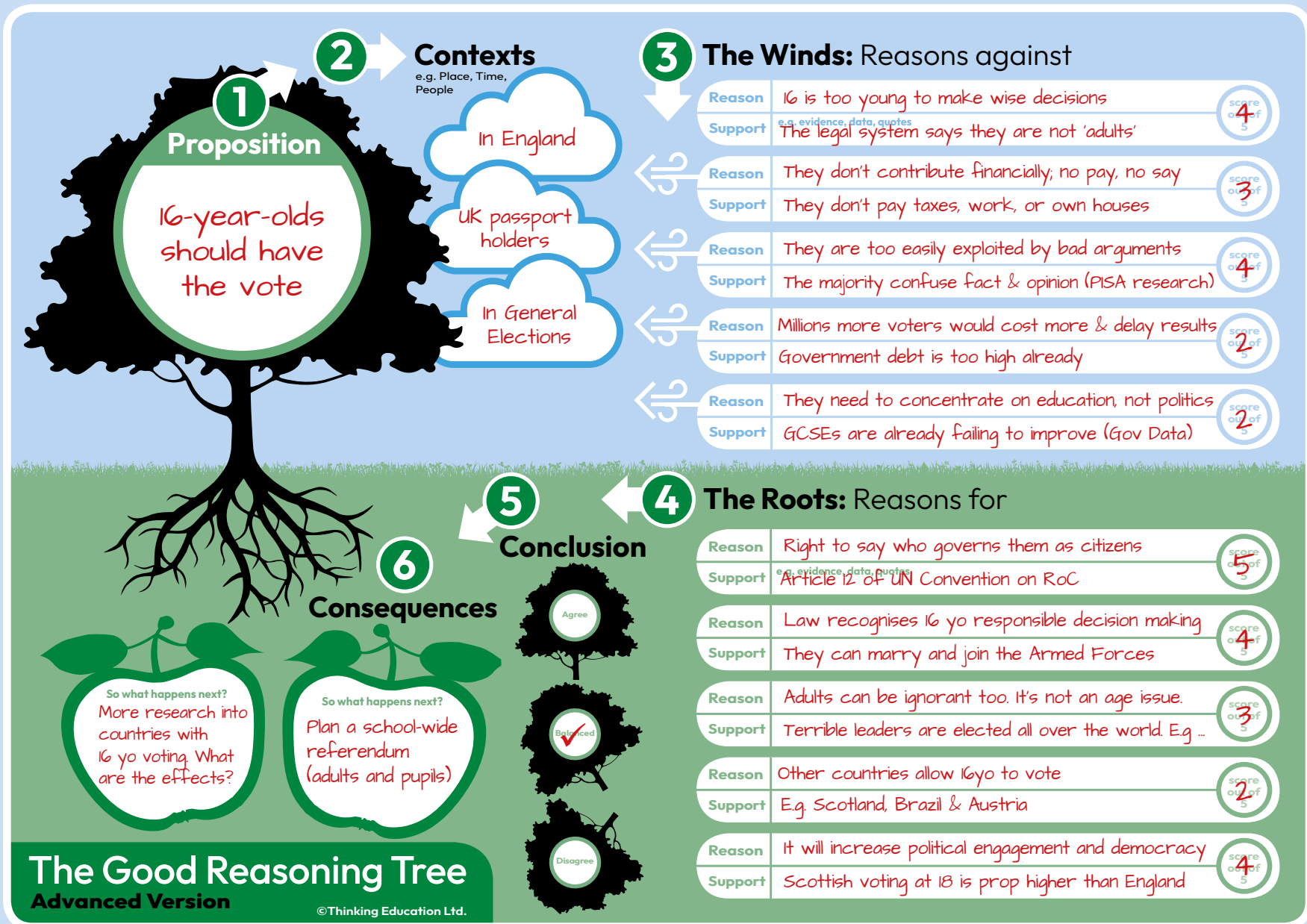


What are the consequences?

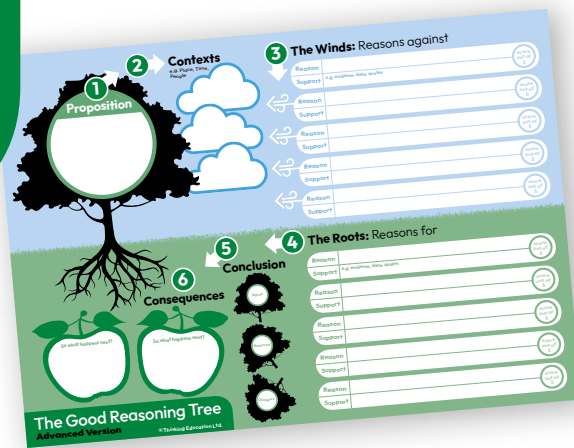
What are the consequences (Fruits) of the conclusion? For example, if it's concluded that 16-year-olds should have the vote, what might follow? What might the practical, ethical, political, social (etc.) consequences be? If the conclusion is fairly 'balanced', then what could be done to research, investigate, or sway opinion either way? For example, in the voting case, we might write "Research countries that have 16-year-old voting", or "Hold a school referendum" in the Fruit spaces.

Basic Version Example





How Does The Advanced Version Differ?



The Good Reasoning Tree: Advanced Version

The Advanced Version of GRT adds two extra elements that challenge participants to deepen their thinking. One is the extra step (Step 2) of the Clouds (the contexts). The other relates to both The Winds and The Roots.

STEP

2

Use contexts to refine the proposition

The Clouds represent the surrounding contexts for the proposition. For example, does the proposition only apply to particular people, places, times (or any other category)? Does it make certain assumptions that need to be made explicit? Are there terms in the proposition that need to be clarified?

In the example “16-year-olds should have the vote” one Cloud might be filled in with “UK” (place), another with “Next year” (time), and “Voting in a General Election” (other). Remember that you can leave sections blank too.

Thinking about the proposition context helps students to identify assumptions, refine the appropriate arena for debate, and exercise their creative and critical thinking skills.



STEP

3

&

STEP

4

Find evidence to support the reasons

For the Advanced Version, each Wind and Root section is divided into two parts (upper and lower). The upper part is filled out with the reason. The lower part is for anything that supports that reason. For instance, it might be some evidence, an example, some research data, a quote from a respected source, or an ethical value perhaps.

If helpful, each Wind and Root can be given a score from 1 – 5 in the circle.

1 = a very weak reason (poorly supported)

5 = a very strong reason (well supported)

For example:

Reason	They don't contribute financially; no pay, no say	score 3 of 5
Support	They don't pay taxes, work, or own houses	

The score might be agreed as a ‘3’ out of 5. It is a practical reason with three specific examples to back it up. Scores are decided as a group. It’s certainly not an exact science, so just estimate the score. The key purpose is to challenge participants to consider the relative **strength** of their reason, not just the numbers of reason.

Weigh it all up – what do we think?

Wind and Root scores can be totalled and compared. If they are fairly balanced then it’s ‘hard to decide’. However, ‘balanced’ does not mean neutralised! Perhaps more research, investigation, or reasons could be explored? Or can a compromise can be created?

EXTRA STEPS

Be Creative: Change The Context

If you want to think more creatively about the proposition, try setting different contexts (Clouds) to see if the conclusion changes as a result. In the voting example above, would things change if the context was China (place), or Europeans (people) or just Local Elections (other)?

Go Deeper: Challenge The Reasons

Ask “what makes a reason strong or weak?”. Challenge some of the assumptions, values, or beliefs that reasons for and against might be resting upon. For example, the “no pay, no say” reason against (see The Winds step on page 13) could be challenged. “**Should** only financial contributors have the vote?”.

Using GRT for Essays and Exams

Assignments, debates, essays and exams frequently demand the evaluation – a critical analysis – of an idea or proposition. The Good Reasoning Tree is a great way of thinking through:

- the key reasons that need to be articulated
- the evidence that supports those reasons
- how to structure essays in creative ways
- a well-balanced and justified conclusion

Exam Answers Upgraded!

Use GRT to work through exam questions and answers. Students could do this individually, in groups, as a class, or as a homework task.

Here are some sample exam questions from recent Economics, History and Geography A-Level papers (AQA). In each case, what would you write in the Proposition area to start The Good Reasoning Tree process with your students?



Economics A-Level question:

‘Using the data in the extracts and your knowledge of economics, evaluate the view that free market supply-side reforms to labour markets are beneficial to the UK economy.’

History A-Level question:

‘How far do you agree that the most significant consequence for China of its intervention in the Korean War was the enhancement of China’s international prestige?’



Geography A-Level question:

‘Evaluate the view that the threats to glaciated landscapes can only be managed successfully on a global scale.’

Generate creative essays from GRTs!

How could you sequence essay paragraphs from a completed GRT? One ‘straightforward’ way would be to cover Steps 1 – 6 in that order. But how about start with Step 5, then do Steps 1 and 2, alternate between Steps 3 and 4, and finish with 5 and 6? What other structures are possible here? Examiners appreciate creative essays!

Sample Propositions – Get Them Thinking!

Primary School

Every school should have a zoo.

Cats are better than dogs.

Children should make the school rules.

Children under seven should not ride bikes.

Computer games are good for people.

Life was better in Roman times.

Eating animals should be illegal.

Kindness is better than honesty.

We should not spend money on space exploration.

Poems are better than stories.

Secondary School

God exists.

Hamlet was a coward.

Global warming above 2°C is avoidable.

Artificial Intelligence is not a threat to humanity.

The world is overpopulated.

Cannabis should be legalised.

Democracy is the best form of government.

The main cause of the First World War was industrialisation.

Damien Hirst is not a real artist.

Plastic has done more good than harm.

Next Step? Book a Free Consultation!

The GRT is a great start, but there are many other areas you can develop to make the art of argument a strength of your school:

- developing speaking / debating skills
- negotiating ground rules
- recognising cognitive biases
- building good relationships
- identifying bad arguments
- understanding 'strengths of reason'.

Call Will Ord on **07876 020150** to explore what's possible!
Or contact him through www.thinkingeducation.co.uk
where you'll also find more information, resources
and courses on offer.

Who is Will Ord?

Will has worked in education for 30 years. He is Director of Thinking Education Ltd., an education training company based in England. He has two philosophy degrees, a PGCE, has been a Head of a Religious Education department, a university lecturer, an author, writer for The Times Educational Supplement (Tes), and was chair of SAPERE (the UK Philosophy for Children charity).

