

The 5 Impossible Puzzles for Political Participation

Lesson Plan

The **5 Impossible Puzzles Lesson** highlights different structural challenges with the way our electoral and political system is supposed to work, as a way to ensure a comfortable familiarity with that system. The Lesson guides students through a series of stages wherein they find out, clarify, and organise their understanding, then share their information about the different Impossible Puzzles, and finally work together to consider possible ways in which the Impossible Puzzles might be resolved. By engaging with the details of why the systems don't – or, perhaps, cannot – work in the ways in which they might be supposed to work, and by considering how they might be adjusted to work better, students develop an easy understanding of those systems, and will find it easier to remember the details and to discuss them in future.

The lesson divides easily over the independent working stage (5), which could either be done in class or for homework, with the remainder of the class following on either immediately or in a subsequent lesson.

The total time indicated (20 mins) for the stages before the independent working stage (1-4) can easily be extended to take up a full class (allowing the students more organisation time, more time to share what they already know, or discussing the lesson objectives more fully, etc.), depending on the time you have available.

The various stages set out here are, of course, suggestions.

You should feel free to adapt as you feel is best for your teaching situation.

Lesson Contents:

- Lesson Overview and Stages
- Overview of the *5 Impossible Puzzles for Political Participation* (notes for teachers)
- Lesson Details and Materials
- Worksheets (1-3)

Learning Objectives:

- Students learn about the mechanics of the electoral system in the UK (or, typically, any representative democracy), from the perspective of the voters.

Wider Developmental Objectives:

- Students learn to listen to other's opinions without interrupting.
- Students learn to ask for clarification until they really grasp a concept.
- Students learn to wait until all participants have grasped all the concepts before discussion begins.
- Students learn to summarise complex ideas and express them in simple terms.
- Students learn how to conduct small meetings and produce a document within a fixed timeframe.
- Students are enabled to understand that their ideas can have meaningful contributions to make to wider, public discussion, and perhaps ultimately to contribute to improvement and change.

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Lesson Overview and Stages

Stage	Minutes
1. Warm Up.	3-5
2. Divide into groups.	2
3. Explain the lesson objectives.	2+
4. Students work in groups , sharing what they already know, and allocating tasks.	5-10
5. Students work individually , learning about one of the 5 Impossible Puzzles, and preparing to present to their group. (Could be homework)	40-50
6. Each student reports back to the group on 'their' Impossible Puzzle. Working as a group, students discuss the puzzles, and consider whether there are any possible changes which could be made, either to the electoral or political systems, or to the ways in which we use those systems. Initially brainstorming, collecting ideas, and then deciding on one idea for each Impossible Puzzle.	30-50
7. Whole class discussion of how serious the problems are, sharing and discussing together the groups' suggestions for possible solutions or changes to the ways in which the systems are used,	10+
8. Follow up (optional): Taking the Party Out of Politics is interested to include any suggestions as to ways in which these electoral and political systems (and others – see other lesson materials) can be improved, adjusted, or used differently, in order to make those systems work better, as well as to include any infographics/diagrams on our website. The best suggestions will be included in Season Three of the podcast series, either as suggestions which are reported and discussed (and which will be credited to those who have submitted them), or in discussion/interviews with the people who have made the suggestions. Students are encouraged to submit their ideas to info@talktogether.info .	

The 5 Impossible Puzzles for Political Participation

Overview for teachers of the 5 Impossible Puzzles

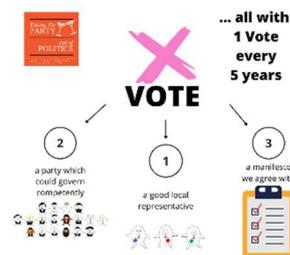
1. The first puzzle is the **Impossible Puzzle for Voters.** (Episode 1: Introduction¹)

This puzzle is the impossible challenge which we are trying to master, by trying to achieve three things with one vote –

- choose a good local representative,
- from a political party which looks as though it could form a competent national government,
- *and* which appears to have a good set of policies (what we call a Manifesto), to do the sorts of things which we think should be done.

All three things. Once every five years. With just one vote.

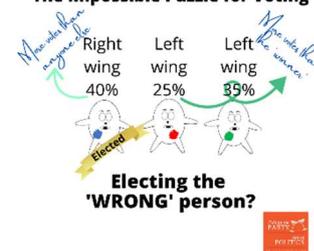
The impossible puzzle for voters



2. The second puzzle is the **Impossible Puzzle for Voting.** (Episode 4)

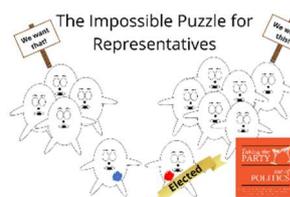
This puzzle comes down to the fact that our First Past the Post voting system means that it is the candidate with most votes who gets elected, not the candidate with a majority of the votes. For example, if there are three candidates, and one of the candidates gets 40% of the vote, whilst the other two candidates get 35% and 25%, then it is the candidate with 40% of the vote who gets elected.

The Impossible Puzzle for Voting



3. The third puzzle is the **Impossible Puzzle for Representatives.** (Episode 4)

If you are elected on the basis of a set of promises (your manifesto), then only some of the people in your constituency voted for that manifesto. How is it then possible to be fair, and even-handed, and to represent the needs of every one of your constituents? Even the ones who didn't vote for you. To be responsible to the people who voted for you, you should really deliver on what you said you would do, in your Manifesto. But to represent everyone in your constituency, you should also respond to the needs and wants of all of the other voters – including all the ones who wanted different things, and who voted against you.

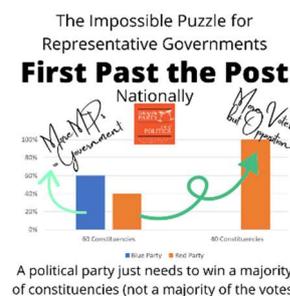


4. The fourth puzzle is the **Impossible Puzzle for Representative Governments.** (Episode 4)

This is about how our national governments very often receive less than 50% of the national vote. Which means that more than 50% of the people who voted, actually voted AGAINST the government, not for the government².

How can we claim to be living in a representative democracy, if about a third our representatives were elected with less than 50% of the votes in each of their constituencies, and then if our national government was elected with less than 50% of the national vote, with most people voting for other parties?

How do you represent the people who DIDN'T vote for you?



5. The fifth puzzle is the **Impossible Puzzle for Parliament and Government.** (Episode 5)

Government is trying to make things happen.

Parliament is trying to make sure that those things are reasonable, and that they are in all of our interests. Parliament is supposed to be checking up on the Government, but the same political party which chooses the Prime Minister and the other Ministers who make up the Government, also has a majority in Parliament. Of course, that is why that party got to choose the Government. But the Impossible Puzzle is that Parliament is dominated by the same party as the Government which it is supposed to be checking up on. That's like not having an independent umpire or referee, at any sporting event, and it's just not objective enough.

The Impossible Puzzle for Parliament & Government



¹ The references are to episodes of the *Taking the Party out of Politics* podcast, Season One

² ALL national governments in the UK have received less than 50% of the votes, since 1935.

The 5 Impossible Puzzles for Political Participation

Lesson Details and Materials

1. **Warm Up.** (3-5 minutes)

This could be anything which works for your teaching group or teaching situation, but as a suggestion, a quick mock election would help to focus minds on roughly the area for the rest of the class. It is probably best to avoid any personal challenges or elections, and to think of something which carries no real weight, but which will still interest the students.

For example: ask the students to choose between two or more items (e.g., a tennis ball and an old text book) as to which best represents your school/area/class/subject, and to hold a class vote. It is best to select items which are not too close to existing emblems or logos (e.g., a book might not be the best choice, if your school crest already incorporates a book).

You might ask two of your stronger, more talkative students to give an impromptu, 60 second 'hustings' speech, each putting forward the case for 'their' item. Perhaps have one of the less confident students on a stopwatch, to keep them to the allotted time.

2. **Divide into groups.** (2 minutes)

a. Groups of 5 students

Divide students into groups of 5.

i. Your decision, but you should have a clear idea of what groups you want BEFORE you start this, so that there is a clear plan for students. You might have the groups ready to put up on the data projector, for example, so that it seems less open to discussion or negotiation.

The variables to consider really boil down to putting the stronger ones together, or dividing the stronger ones across the groups. I would probably choose the latter, unless there are particularly good reasons to do otherwise.

Since this involves a structured group discussion activity, it is worth bearing in mind that student strengths may vary from other classroom activities. A student who is strong in written work may not be so strong in group discussion, and vice versa.

The objective is for the group to come out with the best ideas together, so stronger students should be encouraged to support the group as a whole. This is not a competitive activity.

ii. Roles can be doubled up, with students either working in parallel with each other, or separately and reporting back separately, if student numbers do not divide easily by 5 (e.g., 21 students in a class), *or*

iii. Some of the Puzzles can be left out, if there are not sufficient students (e.g., 4 students), *or*

iv. Some of the students can volunteer to take on more than one Puzzle³.

This might work best if Stage 4 is definitely allocated as a homework task.

3. **"Explain" the lesson objectives** (perhaps based on the first paragraph of this lesson plan).

It is worth taking a moment to explain the overall arc of the lesson (or lessons, if you are setting stage 5 as a homework stage). There should already be a sense of intrigue in the class – activated and animated after the warmer, and now re-distributed into groups, perhaps away from their 'normal' places – but this is about explaining where the lesson is going. This will give the students a greater understanding of where they are going, and why, and should increase engagement and participation.

Apart from explaining the stages of what is happening – for example, explaining the group feedback stage (6), which gives a purpose to the independent work stage (5), it is also worth focussing on the whole class discussion coming at the end, and perhaps also on the possible Follow Up stage. Whilst your motivation for using this lesson may be to get the students to engage meaningfully with electoral systems, it is actually really motivating for your students to feel that their opinions count. Initially, their opinions, their ideas on how things could be different, will matter for the whole class feedback. As a further, Follow Up stage, their opinions could also matter on a national stage, if you encourage them to contribute their suggestions to Season Three of *Taking the Party out of Politics*.

³ N.B. Puzzles 2 and 3, or 2 and 4, probably combine most readily.

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4. **Students work in groups**, sharing what they already know, and allocating tasks. (5-10 minutes)
 - a. Students agree on a group coordinator, who will chair the discussions.
This role is not the 'boss', but carries the responsibility for making sure that everyone is able to participate in the discussions, particularly during Stages 5 and 6. You may find it best to encourage groups to give this role to the strongest student in each group, but it may also be a good idea for this role to be given to the least forthcoming student, since the structured need to manage the discussion may encourage such students to participate more fully.
(Worksheet 1 – can be used simply as a display in class, using the data projector)
 - b. Students are given the titles of the 5 Puzzles, and a small amount of information about each particular stage in the electoral or political process, without going into detail.
(Worksheet 1 – can be used simply as a display in class, using the data projector)
 - c. Students discuss what they already know about each area, as a group.
 - d. Students decide which of them will consider each Puzzle, and divide up the work as a group.
 - e. Worksheet 1 provides the URL for each podcast, as well as a QR code for that URL.

5. **Students work individually**, learning about one of the 5 puzzles, and preparing to present to their group. (Worksheet Two: could be homework) (40-50 minutes)
[You may need to support some students with some of the ideas here. For example, students who are more visual learners may find it challenging to keep up with the numbers being used in the **Impossible Puzzle for Voting**. A simple set of 10 coloured tokens or buttons can be used to represent the different percentages of votes, and to make it visually clear that the First Past the Post system can easily make it possible for a representative to be elected with less than half of the votes cast.]
 - a. Listen to the podcast, making outline notes only (15-20 minutes)
 - b. Listen again, and make detailed notes (15-20 minutes)
 - c. Summarise notes into a single infographic, or possibly a diagram, to represent the puzzle as visually as possible. The infographics/diagrams in the notes for teachers section (above) provide some possible ideas, but it is recommended that these should only be shared with the students after they have created their own versions, to avoid directing their ideas in a particular direction. (10 minutes)

6. **Each student reports back to their group** on their puzzle (30-50 minutes).
(Worksheet 3 – can be used simply as a display in class, using the data projector)
 - a. Presentation
In order of the 5 Puzzles, each student puts their infographic or diagram on the table, and explains their puzzle. Other students are encouraged to ask for clarification, or further details. At this stage, it is probably best to defer the discussion of possible changes which could be made to the systems, and to take this as a separate stage (see below). The reason for this is that an understanding of all 5 of the Puzzles (or, at least, more than one of the Puzzles) might be helpful for students to consider possible changes which stretch across more than one of the Puzzles. (10-15 minutes)
 - b. Feedback
Students provide feedback on the diagrams/infographics, seeking to clarify and fine tune, to make them as good as possible. (5-10 minutes)
 - c. Brainstorm
Working as a group, students brainstorm possible solutions to the puzzles. (10-15 minutes)
 - d. Discussion
Working as a group, students discuss solutions which they have come up with to the puzzles, and consider whether there are any possible changes which could be made, either to the electoral or political systems, or to the ways in which we use those systems. (5-10 minutes)
Each group should try to agree on just one suggested solution to each of the Impossible Puzzles.

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7. **Whole class discussion** of how serious the Impossible Puzzles actually are, sharing ideas about possible solutions, and whether there have been any interesting suggestions which any of the groups have made. (10+ minutes)

This is an opportunity for you to elaborate on what the possible implications are for each of challenges which are thrown up by the Impossible Puzzles. Students should be receptive to any additional information (or clarifications) which you would like to make, and should find it memorable.

Facilitator: If you feel that your class would respond well to a slightly different structure, you could offer/nominate one or more students to facilitate the discussion (encouraging others to speak, gathering ideas).

Scribe: You may also want to have a 'scribe', noting the ideas onto your board (or shared digitally, if you use a platform such as <https://padlet.com/dashboard>).

This role (or these roles) could be circulated, with a different facilitator for each of the Impossible Puzzles.

Follow up:

Taking the Party Out of Politics is interested to include any suggestions as to ways in which these electoral and political systems (and others – see other lesson materials) can be improved, adjusted, or used differently, in order to make those systems work better, as well as infographics/diagrams which will help other students to understand the ideas more clearly. The best suggestions and infographics/diagrams will be included in Season Three of the podcast series, either as suggestions which are reported and discussed (and which will be credited to those who have submitted them), or in discussion/interviews with the people who have made the suggestions.

Students are encouraged to submit their ideas to info@talktogether.info, either individually, or through you.

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Worksheet 1

In your group, decide who is going to chair your discussion.

This is an important role, because it is the chair's responsibility to ensure that everyone is heard, and that everyone gets the opportunity to speak. Other students in the group should support the chair.

Overview of the 5 Impossible Puzzles for Representative Democracy

1. **The first puzzle is The Impossible Puzzle for Voters.**

In a representative democracy (such as in the UK) the voters in each area (constituency) vote once every 5 years, to select a representative. That representative will be expected to represent the interests of the constituency. The representative will almost always also be a member of a political party. That political party will also have a list of policies which it hopes to act upon (it's election manifesto).

<https://qr.go.page.link/xWBdZ>



2. **The second puzzle is The Impossible Puzzle for Voting.**

In each electoral constituency, one of the candidates standing for election is elected. The candidate who is elected is the one who gets more votes than any of the other candidates. The difference between the number of votes which the winner gets and the number of votes which the candidate who came in second place, is referred to as the winning candidate's 'majority'.

<https://qr.go.page.link/nSHAK>



3. **The third puzzle is The Impossible Puzzle for Representatives.**

The candidate who is elected as the representative for each constituency is never elected by 100% of the votes. However, the newly elected representative is then expected to represent the interests of everyone in the constituency – including the ones who voted for someone else.

<https://qr.go.page.link/diAAo>



4. **The fourth puzzle is The Impossible Puzzle for Representative Governments.**

650 representatives are elected to represent the 650 constituencies across the UK. These representatives are referred to as Members of Parliament (MPs). The political party which gets more than half of these MPs (more than 325) gets to form the government (or, if there is not a single party which has more than 325 MPs, then sometimes two or more political parties join together as a coalition, so that together they have more than 325 MPs).

<https://qr.go.page.link/TW13f>



5. **The fifth puzzle is The Impossible Puzzle for Parliament and Government.**

The political party with more than half of the MPs, gets to form the Government. The Government tries to make things happen, in what those MPs believe is the best interests of the country. Parliament is all of the MPs, including those in the Government. Parliament is there to check up on the Government, to make sure that what the Government is doing is sensible.

<https://qr.go.page.link/cWwtB>



- What do you already know about what happens in each of these areas?
- Share what you know with the other members of your group.
- Decide together who is going to find out more about each of the **5 Impossible Puzzles**.

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Worksheet 2

You are going to listen to a podcast, giving you some information about your Impossible Puzzle.
You should prepare yourself to explain the details of your Impossible Puzzle to the rest of your group.

1. Listen to your podcast.
2. Listen again, and make detailed notes.

Think about

- a. How things are supposed to work;
- b. Why they don't work in the way in which we might expect them to;
- c. Any ways you can think of in which things could work differently.

3. Make an infographic or a diagram.

Think about how you can condense your notes into either an Infographic or just a diagram.

You will be able to explain your infographic/diagram to the other members of your group, but your infographic/diagram should contain only a very few words.

If you don't like diagrams or drawing, you could think of a different way of representing the ideas – for example, could a number of buttons or pebbles be used to represent numbers of votes in a visual way (you don't need 100,000 – just 10 should be enough to make your point!)

4. Be ready to present your Impossible Puzzle to your group.

You will present your Impossible Puzzle to your group, by putting your infographic/diagram on the table so that your group members can see it, and you will be able to explain.

5. Be ready to discuss your Impossible Puzzle with your group.

Your group will discuss your Impossible Puzzle (and all of the others) together, and will try to think of ways in which things could be changed (or ways in which we could use the system differently), to make things work better for all of us. If you have any ideas at this stage, it might be good to make some quick notes, so that you are ready to suggest them to the group. Even if your ideas aren't the ones which your group agrees upon, at least your ideas will help to start off the discussion.

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Worksheet 3

Your group chair should manage these stages, to try to keep the group roughly on schedule, and to ensure that everyone gets to speak. All students should support the chair in doing this.

Presentation Stage (10-15 minutes)

1. In your discussion groups, each student should report back on their **Impossible Puzzle**.
2. Listen carefully, and ask questions if there is something which you don't understand – for example, if this doesn't seem to be a Puzzle to you, then perhaps you haven't understood properly. Think about asking constructive questions, which will help everyone to understand, and which will help the student speaking to focus on what is more important to help you to understand.

Feedback Stage (5-10 minutes)

3. As a group, discuss how helpful you found the infographic/diagram for each Impossible Puzzle. Now that you understand more about each Puzzle, are there any things which you would have included (or not included) in each infographic/diagram, to help you to understand more quickly, or more fully?

Brainstorm Stage (10-15 minutes)

(You may find it easier to have someone who is NOT your Chair making notes)

4. As a group, discuss whether you can think of any ways to resolve these Impossible Puzzles. At this stage, any ideas should be welcomed. Zany, crazy ideas should be welcomed as well as sensible ideas, because zany, crazy ideas from one person might spark interesting other ideas for someone else. At this stage, there should be no judgement, no evaluation of whether an idea is good or bad. Just note the idea down (on a piece of paper, or perhaps on a whiteboard, if you have one to use), and ask for more ideas.

Discussion Stage (5-10 minutes)

5. As a group, discuss whether any of the ideas you have come up with are realistic. Try to agree on one suggested way to resolve each of the Impossible Puzzles.