

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ  
وَالْأَيْمَنِ جَرَاحَتِنْ قَانِدَبْ دِكْدُمْ تَاكِمَاوْلْ دَكْبِتْ بَتِرِي خَلَاصْ بَعْلَدِي بَذِرِي



وَنَعَ طَبِيبٌ  
وَنَكَلَ الْكَلَّ  
وَسُونَعَ عَلَيْكَ  
وَنَنْلَرَدَدَ

دَرْدَدْدَنْجِي فَصَ

# Islamic Innovations teacher resource pack



THE UNIVERSITY of EDINBURGH  
**The Alwaleed Centre**



ENGLISH-SPEAKING UNION  
Scotland

# welcome . . .

## ...to islamic innovations!

The Alwaleed Centre at the University of Edinburgh is proud to have partnered with the English-Speaking Union Scotland to produce these stimulating and inspiring resources aimed at encouraging research and debate about some of the most important Islamic Innovations of the last 1400 years.

Of course, the innovations explored in the pages that follow are not necessarily *inventions* of the Islamic World. In most cases, creative Muslim minds made ground-breaking contributions to ideas and technologies they inherited from previous cultures and civilisations. In researching and debating these innovations, it is important to remember that human progress has always been a collaborative affair, across time, place, culture and religion. Innovation is a human impulse, with ideas travelling and interacting over millennia, inspiring great minds to innovate in extraordinary ways. The Islamic contribution to this dynamic process is often overlooked in western classrooms, and it is our hope that these resources help to remedy this.

We also hope that these resources encourage students to engage with Islamic Innovations in a fun and creative way, applying the principles of critical thinking, rigorous research and logical argument to their speeches, rebuttals and summaries. These are all essential skills students will need to develop if they decide to move onto study at university. But, more importantly, they are also essential skills for life. In a world of fake news and sensationalist headlines, particularly around Islam, developing these skills is more important than ever.

We hope you enjoy using these resources as much as we have enjoyed producing them, and we would like to thank the ESU Scotland for inviting us to partner on such an inspiring and timely project.

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# getting started

## what is debating?

Debating can take many forms, and this guide will show you different ways that debating can be used with your pupils. Not all debate formats have two sides, but all debating activities are governed by rules which limit the amount of time people have to present their argument, and how and when others can respond.

The best way to start is to ask your class for ideas about what debating is. They will probably come up with “an argument”, “a discussion”, “an opportunity to put forward views”, “persuasion”. Ask them to think where debates happen: in politics, at work, at home even.

Ask pupils to name some famous people who are good at debating. Pupils will probably think of people like Barack Obama or Alex Salmond, but they might not know that Brad Pitt, Bruce Springsteen and Dara O'Briain were all debaters at school. Try to elicit why these people are good speakers, thinking about persuasion, credibility, confidence, style, humour and, of course, the content of their speech.

Lastly, ask pupils to think about the differences between debating and public speaking. In debating there has to be some clash, as speakers respond to arguments put forward by the other side. It's no good turning up with a prepared speech and then ignoring what the other side says.

Finally, debating is not just about the debate itself. There is plenty of work to be done during the preparation and follow up sessions, and even during the formal debate there are many ways that the whole class can get involved, building on individual strengths and developing skills step by step.

## planning your debates

Here is a suggested plan for the different stages in organising a debate. Better planning will lead to a better debate and you may need several sessions for a full debate.

However, you don't have to follow this exactly - if you are short of time there are plenty of games and activities in this guide that can be done quickly and with little or no preparation.

## stage 1: planning

In class: Introduce the topic and general discussion around the background information. What do they already know? What are the key points? What will they need to find out?

Explain the format, roles and steps and allocate roles to the pupils, asking for volunteers if appropriate. Emphasise that ALL pupils have a part to play. Work through brainstorming, grouping and allocating arguments so that pupils have a focus for their research. You may choose to talk about structure here or leave it to the next lesson.

At home: Pupils research their arguments or topics.

## stage 2: debate

By this stage the pupils should have a good idea of their main arguments and have done the research to find evidence to support their case.

In class: If you haven't done so already, go through speech structure with your pupils. This will help them to refine their arguments and structure their speeches. Pupils can work together to plan their speeches. Encourage them to make notes or bullet points rather than writing speeches out in full. This will help to avoid reading their speeches. Now you are ready to hold the debate!

## stage 3: follow-up

A lot of the research, learning, and understanding will have taken place during the preparation and debate stages, but the follow-up stage is important to review and consolidate what has been discovered.

After the debate, start by discussing the main points with your pupils. Did the most important arguments come out during the debate? Were there any surprises? Have any of the pupils changed their opinion about the topic? What have they learnt during the process?

There are various ways that the information gathered can be recorded. Here are some ideas:

- Posters for the classroom on the topic(s) with the main arguments and facts.
- Newspaper style reports or article for the school newspaper/magazine/website
- A report in assembly or a podcast for the website
- Discursive essays based on the debate

## introduction

These activities are designed to help pupils start to consider the objects and inventions that affect our everyday lives, and how they came about. There is a warm-up game, a main activity, an extension activity, and another speaking game. We suggest pupils work in small groups.

### game: if i ruled the world...

- A quick game to get pupils thinking and talking. The skills taught are helpful for good debating. Work in groups.
- The first person in the group announces their name and makes a statement about what they would do if they ruled the world. For example:
- Person A - "My name's Bob and if I ruled the world, I would give everyone cake."
- Person B – "His name's Bob and if he ruled the world he would give everyone cake. My name is Amy and if I ruled the world I would eliminate poverty."
- Person C – "His name's Bob and if he ruled the world he would give everyone cake. Her name is Amy and if she ruled the world she would eliminate poverty. My name's Omar and if I ruled the world I would make everyone wear blue hats".
- This continues round the circle. You can re-start the game again half-way round the circle.

### pair and group discussion: everyday objects

Work in groups of 4 (2 pairs).

Each person in the pair takes it in turn to describe to their partner an object that has some significance for them, something they use daily as part of everyday life. Think about why the object is useful or enjoyable to use, how it is used, and how life might look without it. Speak uninterrupted for 1-2 minutes, and then answer a couple of questions from your partner.

Now report back to the group what your partner has talked about. As a group, make a list of what aspects of the object were mentioned (or could have been), in order to explain what makes it special or significant. Then start to think about how, when and why each object was invented. Feed back to whole class group.

#### Learning objectives:

- To help improve general communication skills
- To help improve confidence
- To generate and share ideas
- To identify themes
- To encourage pupils to start thinking about their research
- To encourage listening and summarising skills
- To improve memory skills

### extension activity

Bring in a variety of objects and ask the pupils to look at what it is made of and how it was invented. Objects could include: spectacles, a glass, a map, a jar of coffee... Alternatively, bring in photos of people working in a hospital, a coffee shop, a cartographer... Pupils can think about who did these jobs in the past and how these jobs developed.

#### Learning objectives:

- To help pupils look behind an object to its materials and production.
- To help pupils consider the historical context of objects and discoveries.

### game: just a minute

- Decide a topic that pupils can speak on without needing to prepare e.g. Should we abolish school uniform?
- The topic can be set by the teacher or through discussion with the class. When a topic has been chosen, ask for volunteers to speak. Explain that the minute begins as soon as the first speaker starts. If the first speaker hesitates, repeats words or talks about something unrelated to the topic they can be challenged by one of the other pupils. To challenge, they should raise their hand and the speaker must stop, as will the stopwatch.
- The pupil who has raised their hand will be asked to explain their objection. If the challenge is agreed they then will take over from the speaker (or can nominate another speaker) and the stopwatch will start again.
- The student speaking when one minute is reached is the winner!

# paper vs glass

## introduction

These activities help pupils develop debating skills and knowledge to help prepare for the Islamic Innovations Debate. The Alley Debate generates ideas and gets pupils debating straight away. Pupils work in groups to prepare a speech to present to another group, which helps planning skills and builds confidence. Alternatively, you can hold a whole class debate on Paper vs Glass. We have provided two speech plan worksheets that you can use to help pupils structure their speeches. The second is more guided for younger pupils or more novice speakers.

### game: alley debate: paper vs glass

- Alley debates are a fun way to introduce debating to a class and to generate ideas. They emphasise persuasion, quick thinking, and rebuttal skills.
- Divide the class into two groups and form two lines a few metres apart facing each other. Set a topic for the alley debate- this can be fun or serious.
- It should be an 'yes/no' topic e.g. 'Should I buy Fair Trade goods?' or a choice between two things, such as whether Christmas or birthday is better.
- Here we look at the benefits of Paper vs Glass.
- Assign one side of the topic to one line and the other side of the topic to the other line. The teacher (or one of the pupils) stands halfway between the lines. The first speaker in favour of paper gives a reason why paper is the most useful. If the point is convincing the person in the middle takes a step towards that side - the more convincing the argument, the bigger the step.
- If the person is not convinced, they stay in the middle. Then ask the first speaker in the other line why glass is better, and repeat the process, working down the lines until they reach the final speaker.

### Learning objectives:

- To help improve general communication skills
- To encourage quick thinking skills
- To develop confidence speaking in front of others
- To encourage listening skills
- To generate ideas and assess prior knowledge
- To encourage rebuttal skills
- To identify stronger and weaker arguments

Alley debates can be used for almost any topic and can actually be used for quite complex motions or issues.

### group activity: brainstorming & developing arguments

Brainstorming helps to involve pupils who may find debating difficult, as they can make a direct contribution without having to make an extended speech in public, which helps to build confidence.

After the Alley Debate on Paper vs Glass, use a large piece of paper to write down as many of the arguments as you can remember. Are there any more that can be added? At this stage the important thing is to think of as many arguments as possible. You can choose the best later. Try to think of arguments on both sides of the debate so you have an idea what the other side might say.

Are any of your arguments saying the same thing? Can you link any of your arguments together by theme? Draw lines between the arguments and try to organise them into themes.

Look at the information about making R.E.A.L. arguments. Choose your three strongest points and make them into R.E.A.L. arguments. Be as persuasive as possible. Note that some of your points might be a Reason but some might be an Example or Evidence, in which case you need to go back and state the Reason.

### Learning objectives:

- To help pupils to think about structure and planning
- To encourage analysis of points
- To prepare content and arguments for the speeches
- To help pupils distinguish between fact and opinion
- To help pupils provide relevant supporting evidence

# r.e.a.l. arguments & speech structure

It is not enough to simply make assertions or quote facts and hope the audience understands why your points are important. Your arguments should be clear, fully developed, and relevant. A useful way of structuring arguments is R.E.A.L.: Reason, Example/Evidence, Analysis, Link. It helps the audience to follow your point and it makes your arguments more effective and persuasive.

**Reason:** This is what we believe (our point).

**Evidence/example:** This is how we know it is true - provide an example or evidence to support your point.

**Analysis:** This is why our point is important. Think about consequences, results....

**Link:** Link back to your team's topic - this is why the point supports our side.

When you are making your points into R.E.A.L. arguments, try to link points together so that each of your arguments is based on a theme or heading.

## speech structure:

Clear structure makes a speech easier to listen to and understand.

- **Introduction** - Establish a connection with the audience and include a preview of your points (and, if appropriate, a preview or recap of your partner's/team's speech). This helps the audience know what to expect, almost like a roadmap.
- **Body of Speech** - Each speech should highlight two or three main arguments. Use clear signposts in your speech to help the audience keep track of where the speech is going.
- **Conclusion** - Briefly recap what you have said and why your side wins the debate, and leave the audience with something to think about or a call to action.

**Remember the Rule of Three:** 'Say what you are going to say, say it, and say what you have said'! A well-structured speech is different from a scripted speech, so use notes as a guide rather than a script. With practice this gets easier and helps you become more convincing and confident.

# paper vs glass

## group activity: preparing and delivering your speech

You are now going to prepare one speech per group to present to another team.

You can use the paper and glass factsheets to help you research your points and the speech plans to help you organise all your points.

Each of you will say part of the speech and you can work together to write it. Start with your R.E.A.L. arguments from the previous exercise - these will form the main body of the speech, so decide which order to put them in.

Once you have the main body of your speech in place, look at the introduction and conclusion. As well as a preview and a recap of your points, you'll need a memorable beginning and end to your speeches. This is your real chance to catch the audience's attention right at the start, and leave them with something to think about afterwards.

Don't write your points out in full - if you have notes it will be much easier to deliver your points convincingly. You should NEVER read your speech.

Decide who is going to present which sections of your speech. Make sure that each person has something different to say and that you are not repeating points (apart from the brief preview and recap).

Present your speech to another group. Be prepared to answer a question from each person in the other group after your speech. Alternatively, the opposite team could make points of information during the speeches (see below).

Each group provides some feedback to the other group. Make it positive, helpful and constructive, e.g. 2 stars and a wish.

## Learning objectives:

- To help improve general communication skills
- To help improve confidence in delivering speeches
- To encourage quick thinking skills
- To encourage listening skills
- To encourage & improve rebuttal skills
- To develop skill of structuring speeches
- To encourage teamwork

## debate technique: points of information (p.o.i.s)

Points of information are short interruptions during a speech, where the opposing side can make a comment to the speaker. This can be a fact, a question, a statement or a challenge. Making a good POI shows that you are listening and responding to what the other side says.

Usually at the beginning and end of a speech there is a period of 'protected time' where no POIs can be given, signalled by the timekeeper. This is normally 30 seconds at the start and end of a 3-minute speech, or a minute in longer speeches.

To make a POI, stand up and say "Point of information". Remember that the speaker does not have to take the point, and can respond "yes please" or "no thank you". It is good to take at least one POI during a speech, and you should try to offer at least one during each of your opponents' speeches.

- Write the question down so you are less likely to fluff it, or you can pass it to your partner.
- Your POI should be current - don't go back to something they said earlier in their speech.
- If you are the speaker, try to answer the POI when it is made: don't say "well, I have that later in my speech...."
- Most importantly, POIs should be SHORT, SHARP, AND TO THE POINT! (Ideally less than 15 seconds.)

## game: the point of information game

This game encourages pupils to question points of view and also offers an outlet to pupils who may find debating or public speaking difficult as they can be involved in the game by offering short points of information. This is a good way to start pupils speaking in public and to help them build confidence.

A speaker (the first time the speaker will be the teacher) will speak on a controversial topic for one or two minutes, for example 'I believe that children should be seen and not heard'. The speaker has to defend the controversial topic by giving reasons and examples and the rest of the class have to offer points of information. They do this by standing up and saying 'Point of Information'. The speaker either accepts the Point of Information by pointing at the person and saying 'Yes' or declines the point by saying 'No thank you'.

If the speaker says 'Yes' the questioner must offer a point of information. When the point has been given, the speaker must answer that point whilst continuing their speech. Pupils can take it in turns to be the speaker.

## debate technique: rebuttal

Rebuttal is one of the main things which makes debating different from public speaking, as this is where the clash of ideas is introduced. There is *offensive rebuttal* where you attack what the other team has said, as well as *defensive rebuttal* where you say why your arguments are stronger than the rebuttal offered by the other team. The most important thing is to LISTEN and REACT to what the other side says and explain point by point why you believe they are wrong. It is always better to rebut your opponent's major arguments rather than pick holes in minor points. Just as you need to tell the audience why your points are important, you should also say why your rebuttal is important e.g. because it is disproving the most important argument of the other team or it is showing that one of their biggest arguments is based on an incorrect idea. Whilst researching, think about what the other side's case might be and use this to prepare the rebuttal of obvious points. However, you need to be flexible and must always rebut the points which the opposing speakers did make, rather than the points that you expected or wanted them to make!

- If you rebut the strongest arguments you are more likely to win the debate.
- Try to think beforehand what the other side will say so you are better prepared.
- Note down what the speaker says so that you can rebut properly point by point.
- Do it at the beginning of your speech before you go on to your main arguments.
- Don't be afraid of it!

## game: i couldn't disagree more...

A useful and quick game that can help practise rebuttal techniques the ability to deal with p.o.i.s.

One pupil makes a statement (this statement could be serious, silly, topical, controversial or obvious, or on a certain topic). The next person has to reply to the statement by saying 'I couldn't disagree more' and then give a reason why. Here's an example:

Pupil A – "I believe that politics is a waste of time"

Pupil B – "I couldn't disagree more. Politics is incredibly important as politicians make decisions that affect every aspect of our lives'

Now it is Pupil B's turn to make a statement:

Pupil B – 'I believe that we should introduce road pricing in the UK'

Pupil C – 'I couldn't disagree more. In early 2007, over 1.8m people in the UK signed a petition saying that they didn't want it.'

# speech plan

introduction (introduction, preview, audience hook)

reason

example/evidence

analysis

link

reason

example/evidence

analysis

link

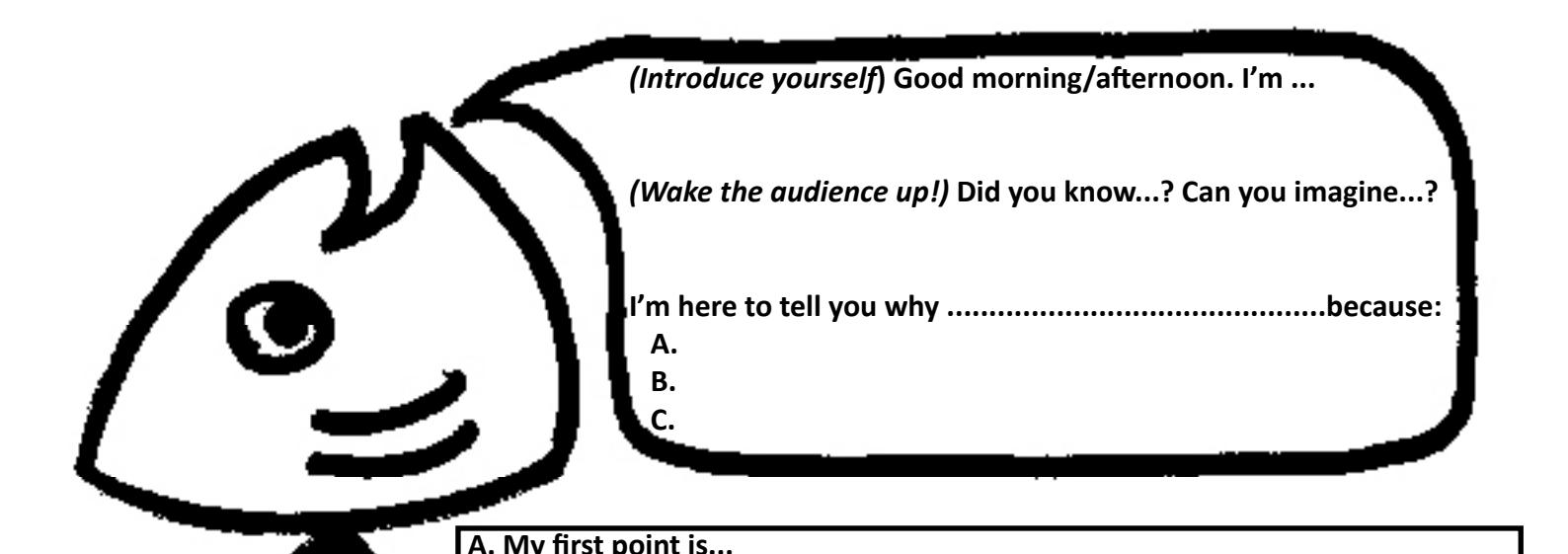
reason

example/evidence

analysis

link

conclusion (tell the audience you're concluding, recap, final call to action)



(Introduce yourself) Good morning/afternoon. I'm ...

(Wake the audience up!) Did you know...? Can you imagine...?

I'm here to tell you why .....because:

- A.
- B.
- C.

A. My first point is...

We believe...

We know this because...

This is important because...

So (link back to topic/motion)...

B. My second point is...

We believe...

We know this because...

This is important because...

So (link back to topic/motion)...

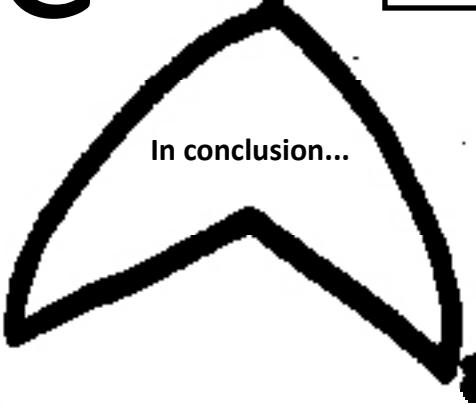
C. My third point is...

We believe...

We know this because...

This is important because...

So (link back to topic/motion)...



In conclusion...

So I've told you...

- A.
- B.
- C.



And remember...

# islamic innovations

## introduction

This section takes you through holding a debate to decide which is the most significant Islamic Innovation. Pupils prepare and do the debate in teams. Each team will represent a different innovation and try to persuade the audience why theirs is the most important, useful or significant. We have worked with the Edinburgh Alwaleed Centre to create factsheets on each innovation to help teams prepare and research. These are included in this handbook and are also available to download from the ESU Scotland website: <https://www.esuscotland.org.uk/islamicinnovations-resources>

## debate format

The debate is about which innovation has made the most valuable contribution to the world. There are ten innovations in total to choose from (including paper and glass) so you can have up to ten teams competing. There is a factsheet for each of the innovations to help pupils research their topics. The introduction provides historical context, but pupils should focus their speeches on the use of each of the innovations rather than the history.

During the debate, each team will make their opening speech in turn. This can be given by one pupil or shared between two. After each opening speech, a questioner (or two questioners) from another team will ask the speaker(s) one or two questions. Alternatively, you can allow other teams to offer points of information during the speeches.

After every team has given their opening speeches, the summary speaker from each team will give a short speech to recap their team's main points and provide some rebuttal of other teams' speeches.

It is up to you how long each speech should last. For our competition, the opening speeches last three minutes and the summary speeches last two minutes, but you will know how long your pupils will be able to speak for, and it will also depend on how much time you have for the debate. After all the opening and summary speeches you can then hold a floor debate.

## roles in the debate

There are a number of different roles for pupils during the debate. Some roles are essential and some are optional, so which you include in your debate will depend on how you want to organise it. Examples of teams are shown in the box. Teams should prepare together to research their chosen person and plan their speeches.

- **OPENING SPEAKER - essential**

The job of the opening speaker is to present a speech about their innovation on behalf of the team. They will need to explain a little about their innovation and put forward the main arguments in favour of their innovation. They will need to explain in their arguments why each point they make is important (REAL arguments) and why their innovation is the most valuable or significant.

You can have two opening speakers. The two speakers should divide the speech between them in a sensible way, but it is up to them how it is divided.

## Innovations:

- Algorithms
- Astronomy
- Cameras
- Coffee
- Glass
- Maps
- Medical drugs
- Paper
- Surgery
- Universities

## Examples of team organisation

Team of 3 pupils:

- Opening speaker, summary speaker, questioner
- Opening speaker, summary speaker, judge

Team of 4 pupils:

- Opening speaker, summary speaker, questioner, judge
- Opening speaker x 2, summary speaker, judge

Team of 5 pupils:

- Opening speaker x 2, summary speaker, questioner, judge
- Opening speaker, summary speaker, questioner, judge, coach

#### • **SUMMARY SPEAKER - essential**

The summary speeches come after all the opening speeches in the debate. The summary speaker has two main tasks: briefly recap the main points from their team, and then provide rebuttal, where they highlight some flaws in the other teams' speeches or make comparisons between their innovation and those of their opponents. Summary speakers will need to write their speeches during the debate, and can be helped with this by the questioner, if there is one.

#### • **QUESTIONER - optional**

The questioner asks a question to the opening speakers on one of the other teams. It is easier if the questioner knows beforehand which team they need to question. An alternative to the questioner role is to allow other teams to offer points of information during the speeches.

#### • **JUDGE - optional**

You can judge the debate yourself or you can ask a panel of pupils to be the judges. During the preparation stage the judges can either prepare with their teams, or use this time to work together in a group to decide on a set of criteria they will use to judge the debate. This helps pupils to consider what skills are needed to be a persuasive speaker.

#### • **COACH - optional**

The role of the coach is to help the team research and prepare and to help the summary speaker write their speech during the debate. It can be a non-speaking role, or you can encourage the coach to make a point during the floor debate.

If you have a large number of teams taking part, you can divide the debate into shorter sessions so you have a few opening speeches followed by a few summary speeches. This makes it easier to manage, especially for the summary speakers who will need to write at least half their speeches during the debate.

In addition to these roles you can also ask one or two pupils to chair the debate, introduce the speakers and manage the floor debate, and a time-keeper to time the speeches.

## preparation

Introduce pupils to the list of innovations for the debate. What do they already know about these? Decide which team will represent each innovation. Give pupils the debate information and role cards. Pupils work in teams to brainstorm, research, build REAL arguments and prepare the Opening Speech. They can use the factsheets on each innovation to help them. During the speech writing time, pupil coaches can be allocated to each of the speakers to help them plan, write, and even practise their speeches. This provides an opportunity for pupils who aren't so confident speaking to use their knowledge.

You might want to do this preparation stage over more than one lesson so that some of the research can be done for homework.

## debate

During the debate pupils can complete the audience task. After the speeches you can hold a floor debate. This is where all the members of the audience can ask a question, make a comment or give a short speech. You can task each member of the audience to make a contribution during the floor debate.

Participating in a floor debate can be a great way of building confidence and moving from asking a brief question, to making a short speech, to eventually becoming a main speaker.

## follow-up

The follow-up session can really help consolidate the knowledge gained during the preparation and debate. This is a great opportunity to consider who were the most persuasive speakers. Why? Which arguments came up in the debate? Have the pupils changed their ideas about any of the topics? If you have pupil judges, ask them to provide feedback, or use the audience task as a group or class activity.

Other follow up activities could include making posters or displays for each of the innovations.

# islamic innovations debate

You are going to have a debate about Islamic Innovations: ideas, materials, practices or objects that were developed in or by Muslim culture. Each team will represent a different innovation and try to persuade the audience why yours is the most useful or significant. The innovations are:

Algorithms	Astronomy	Cameras	Coffee	Glass
Maps	Medical drugs	Paper	Surgery	Universities

Each of these innovations are closely linked to Muslim civilisation, but you do not need to discuss this or the history of your innovation in your speech unless it is relevant to your arguments.

Think about what makes these innovations important:

**Who uses them?**

**How important are they in daily life?**

**How do they make our lives better?**

**What would the world be like without them?**

Sometimes it's helpful when you are comparing concepts/people/things in a debate to use criteria. For example, a debate about whether apples are a better fruit than oranges is a very messy debate. But if one team says 'we think the best fruit is the one that works best in a fruit salad', or 'we think the best fruit is the one that is the most healthy', the debate will be a lot clearer.

During the debate, each team will make an Opening Speech to explain your innovation and why it is so special. After all the Opening Speeches, the Summary Speaker from each team will give a short speech, reminding the audience of your team's main points and then providing some rebuttal highlighting some flaws in the other teams' speeches and making comparisons between your innovation and those of your opponents. The Summary Speeches will need to be written during the debate.

Your teacher will tell you how long the speeches will last. You will need to work as a team to prepare your speeches. There may be a Floor Debate after all the speeches where members of the audience can contribute.

There are different roles in this debate. Look at the role cards and decide who will take which roles in your group.

# debate role cards

There are different roles for pupils during the debate. The opening speaker and summary speaker roles are essential and the others are optional. Teams should prepare together to research their topic and plan their speeches.

## opening speaker

The job of the opening speaker(s) is to present a speech about your innovation on behalf of your team. You will need to explain a little about your innovation and why it's the most significant or important.

You will need to explain why each point you make is important by making your arguments REAL. You can use the speech structure guide to help you plan your speech.

## summary speaker

You speak after all the opening speeches. You have two main tasks: briefly remind the audience of the main points from your team, and then provide some rebuttal, where you identify some important arguments put forward by the other teams and say why they are wrong.

You will need to write your speech during the debate, and can be helped with this by your team.

## questioner

You will need to ask a question to the opening speaker on one of the other teams. You will know beforehand which team you need to question.

Try to make sure that your question is directly related to one of their most important points if you can.

## coach

Your role is to help the team prepare. You will be sitting next to the summary speaker during the debate so you can also help the summary speaker write their speech during the debate.

You can also make points during the floor debate after the main debate.

## judge

Your role is to judge the debate. Think about how the teams have worked together to present their topic.

You might be asked to provide feedback to the speakers. If so, make it positive and useful to help the speakers improve. For example, say two things you liked about each speech and one thing to work on.

## chair

Your role is to manage the debate. You will need to introduce the speakers and make sure they speak for the right amount of time. You may have a timekeeper to help you time the speeches.

If there is a floor debate you need to ask members of the audience to contribute and you can invite the speakers to respond.

# summary speech plan

introduction (introduction, preview, audience hook)

recap main points of team:

1.

2.

3.

rebuttal of arguments from other teams:

1.

2.

3.

conclusion (tell the audience you're concluding, recap, final call to action)

# being persuasive

Debates are awarded to the team that is the most persuasive. After a debate, most judges will have a fairly good idea of which team they believe this to be, but to come to the decision properly it is useful to consider which elements make a speech more persuasive, and which elements lessen a speech's persuasiveness.

## Things that make a speech more persuasive

- Speaking clearly and understandably
- Making relevant, powerful arguments
- Providing evidence and reasoning to back up arguments
- Responding to the other team's arguments
- Adding to arguments with appropriate stylistic flourishes, e.g. quotes, anecdotes
- Accepting at least one point of information (if P.O.I.s are allowed in format)
- Offering points of information (if P.O.I.s are allowed in format)
- Making good use of time, giving each point enough time to be explained properly
- Structuring arguments in a way that is logical and easy to follow

## Things that make a speech less persuasive

- Speaking in a way that is hard to follow, e.g. speaking too quickly, mumbling
- Speaking in an over-prepared style, e.g. reading out a speech without making eye-contact
- Asserting arguments, not providing evidence or reasoning to back them up
- Not responding to the other team's arguments
- Accepting no points of information (if P.O.I.s are allowed in format)
- Offering no points of information (if P.O.I.s are allowed in format)
- Making poor use of time, e.g. rushing a point at the end of your speech
- Messy, hard-to-follow structure- unclear when one point ends and another begins

# finding things out

There are factsheets about each innovation to help you get started with your research. These factsheets should be a jumping off point. You can use the questions to help brainstorm your arguments and this will provide you with 'key' words and more questions, which will help focus your research. Try looking in the school or local library to see what resources are available.

There are lots of great resources that you can use for your research on the 1001 Inventions website: <http://www.1001inventions.com/>

This is also an interesting article, although not recent: <https://www.independent.co.uk/news/science/how-islamic-inventors-changed-the-world-6106905.html>

We've suggested some websites which are useful but you might want to do your own searches. When you put the key words into the search engine you'll find a lot of stuff. Anyone can publish online, so how do you know what's reliable and accurate? You'll get better at deciding what is fact and what is fiction. Don't take the word of one website - cross check with others.

## using the internet

Here are a few things to look out for which will help:

- Does the website you are looking at have an 'about us' section where you can find out about the aims of the website and who wrote its content?
- In general a site with the suffix .gov.uk (government); or .ac.uk (university) is likely to be more reliable, but you still can't assume everything is 100% accurate.
- Who is the author - are they an expert, or someone with an opinion?
- Is there information about when the website was last updated, or the article written? Are there details of sources for the information the author has used?
- Is the material well written or are there grammar and spelling mistakes? If there are you should be wary that the author may not have taken any more care with their 'facts'.

When you are writing your speech or notes put what you are reading into your own words- don't cut and paste. This will help you work out if it makes sense, and you'll probably write it as you like to speak. It also means you won't run the risk of being accused of plagiarism (taking someone else's work and passing it off as your own).

# **audience task**

Something I really enjoyed about the debate:

Something that one of the speakers did really well that I would like to learn from:

Something that I noticed one of the speakers could work on to get better:

A question I would have liked to ask during the debate:

# **audience task**

Something I really enjoyed about the debate:

Something that one of the speakers did really well that I would like to learn from:

Something that I noticed one of the speakers could work on to get better:

A question I would have liked to ask during the debate:

# algorithms

## introduction

An algorithm is a process or a set of rules that are followed in calculations or other problem-solving operations. This may sound rather boring but you would be amazed how important algorithms actually are. Every single computer programme uses algorithms to function. From PCs to smartphones, aircraft systems to robots, anything that uses a computer programme simply couldn't exist without algorithms. But have you ever wondered where the word "algorithm" comes from? Algorithms are actually named after the 9th century Muslim mathematician Muḥammad ibn Mūsā al-Khwārizmī, whose name in Latin was pronounced "Algorithmi". Al-Khwārizmī was certainly not the first person to discuss algorithms in his mathematical writing, but his contribution to our understanding and use of algorithms was so important that we now use his name whenever we use an algorithm. So next time you're using your laptop or smartphone, remember the important role al-Khwārizmī played in making our modern computer programmes possible.

## questions to think about

- How many everyday objects can you think of that use computers?
- Think about your travel to school today? In what ways were computers involved?
- What tasks are done nowadays by computers that used to be done by people? How has this changed the process? How has this changed people's jobs?
- How would your life be different without computer programmes? Think about your studies, your hobbies, getting around...
- How do you think technology will develop in the future?



Many of these items use algorithms to work.



How are computers being used here?

## where to find out more

- An introduction to algorithms:  
<https://www.bbc.com/bitesize/articles/z3whpv4>  
<http://www.bbc.co.uk/guides/zqrq7ty>
- Learn more about algorithms and their use in computer programmes: <https://computer-howstuffworks.com/what-is-a-computer-algorithm.htm>
- What are algorithms? The Economist explains:  
<https://www.economist.com/the-economist-explains/2017/08/29/what-are-algorithms>
- Learn more about Abū 'Abdallāh Muḥammad ibn Mūsā Al-Khwārizmī: <http://1001inventions.blogspot.com/2010/03/contribution-of-al-khwarizmi-to.html>

# astronomy

## introduction

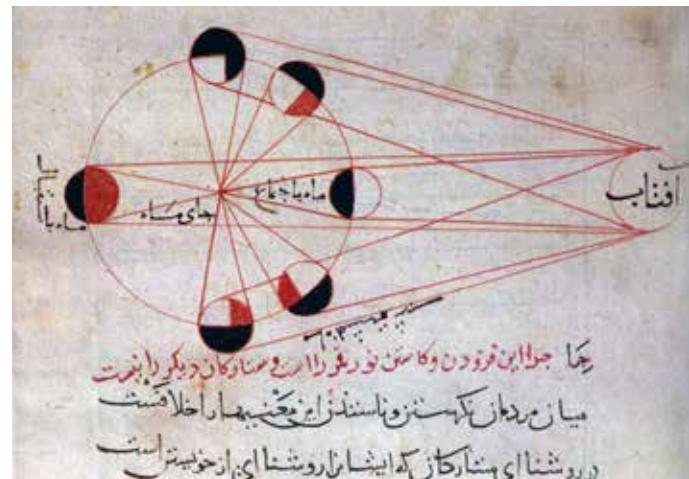
Since the arrival of Islam in 7th century Arabia, Muslims have spent a lot of time looking up at the stars... and there are some very practical reasons why. For example, the times of the five daily prayers that practising Muslim should try to perform are dictated by the position of the sun in the sky. So being able to understand and predict the sun's movements was really important. Also, each of the daily prayers should be performed facing in the direction of Mecca (which is in modern-day Saudi Arabia). Before the invention of portable compasses, the direction of Mecca was established by observing the position of either the sun or the moon in the sky in relation to the observer. As a result of these, and many other factors, Muslim contributions to the development of astronomy are amongst the most important in human history. Figures such as Al-Battani, Al-Biruni, Ibn Yunus and Ibn Rushd made revolutionary discoveries about our solar system through their scientific observations, and astronomers today owe a massive debt of gratitude to these early Muslim pioneers.

### questions to think about

- Name a significant moment in history that would have been impossible without astronomy.
- How does astronomy help us understand the ocean?
- How has using the stars to navigate helped explorers?
- How might knowing about other planets help humanity in the future?
- How has space travel helped us understand our planet better?
- How have inventions for space travel been used in everyday life?



An 18th-century Persian Astrolabe



An illustration from al-Biruni's astronomical works, explains the different phases of the moon.

### where to find out more

- Find out what's happening now in space travel: <https://www.nasa.gov/audience/forstudents/index.html>
- Find out all about Hubble: <http://hubblesite.org/>
- Astronomy games: <https://kidsastronomy.com/>
- Learn more about the stars: [https://downloads.bbc.co.uk/tv/stargazinglive/sgr\\_starguide\\_with\\_links2013.pdf](https://downloads.bbc.co.uk/tv/stargazinglive/sgr_starguide_with_links2013.pdf)
- Learn more about Islamic inventions and contributions to astronomy: <http://www.1001inventions.com/astrolabes>
- Make your own astrolabe: <https://in-the-sky.org/astrolabe/index.php>

# cameras

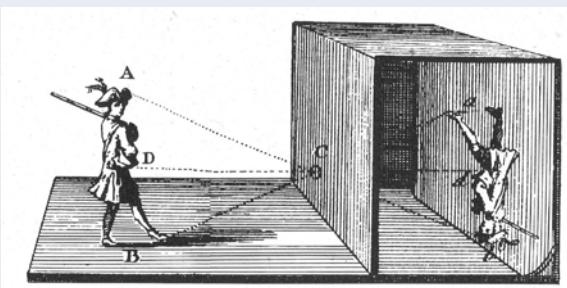


## introduction

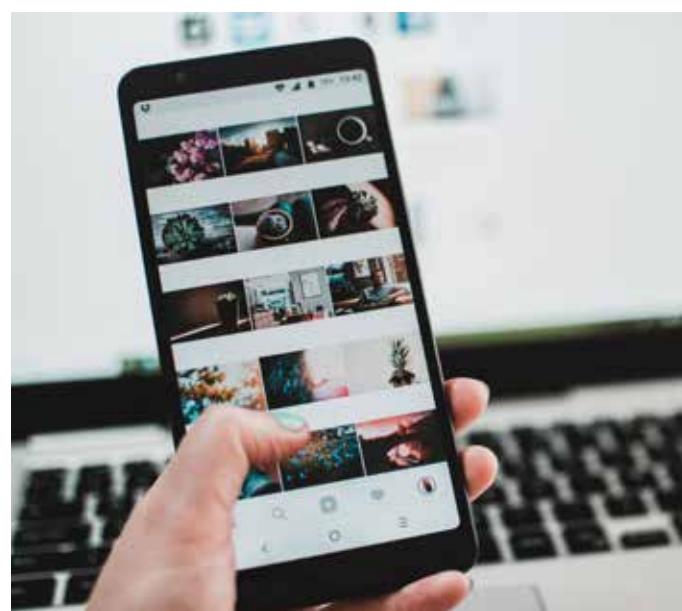
Taking great photos has never been so easy, with most of us just using our phones to take selfies or snap shots of our friends and families. But cameras as we know them have only been around for the last couple of centuries, and they would never have been developed if it weren't for the pioneering work of a Muslim scientist called Ibn al Haytham. It might be hard to believe but, before Ibn al Haytham, it was generally accepted that the human eye transmitted light outwards like a laser beam, enabling humans to see the world around. But back in the 11th Century, Ibn al Haytham realised that light actually reflected off objects and into the eye. To prove his theory, Ibn al Haytham built one of the world's earliest 'camera obscuras' in the form of a darkened room into which light entered through a tiny hole. The light reflected an image of the outside world onto the wall of the darkened room and Ibn al Haytham was therefore able to prove his theory. In doing so, he had actually created one of the world's first cameras!

### questions to think about

- How many different ways are cameras used today?
- What do you do with the photos you take?
- What does being able to take photos mean to you? Your family? Your friends?
- How do cameras keep us safe?
- How are cameras used in medicine?
- How has photography changed the way we look at and learn about the world?



An illustration of a Camera Obscura (above) and CCTV camera are a familiar sight (below)



### where to find out more

- What is a camera obscura?:  
[http://www.amazingcameraobscura.co.uk/  
howitworks.htm](http://www.amazingcameraobscura.co.uk/howitworks.htm)
- How does a camera work?:  
[https://electronics.howstuffworks.com/camera.  
htm](https://electronics.howstuffworks.com/camera.htm)
- Learn more about Ib al Haytham:  
<http://1001inventions.com/ibnalhaytham>
- How to make a room into a camera obscura:  
[https://www.youtube.com/watch?v=yvWX6-0\\_VHU](https://www.youtube.com/watch?v=yvWX6-0_VHU)

# coffee

## introduction

The global coffee trade is worth over £750 billion a year worldwide, making it more valuable than natural gas, gold or sugar. Indeed, coffee is now the second most in demand commodity on planet earth, second only to crude oil. Coffee is so much a part of our day-to-day lives that it's hard to imagine a world without it. But coffee as we know it today is actually a very recent innovation, and one which has its roots in the Islamic world. The earliest historical account we have of coffee-drinking as we would recognise it today appears in the writings of a man called Ahmed al-Ghaffar who witnessed coffee-drinking in Yemen around 700 years ago. Although it is clear that the roasting and brewing of coffee beans originated in Arabia, the practise quickly spread across the Middle East and eventually found its way to Europe, with the first European coffee house opened in Rome in 1645. So next time you're enjoying a latte or an espresso, remember to thank the innovative coffee-drinkers of Yemen!

### questions to think about

- Who do you know that drinks coffee? Why do they like it?
- Think about the production and supply chain from crop to cup. Who is involved?
- Where is coffee grown?
- What and when do people drink coffee?
- How does coffee bring people together?
- What is the Fairtrade campaign trying to achieve?



### where to find out more

- Learn about the history of coffee:  
<http://www.ncausa.org/about-coffee/history-of-coffee>
- Learn more about Fairtrade and the people who produce coffee:  
<https://www.fairtrade.org.uk/en/farmers-and-workers/coffee>
- Learn more about coffee:  
<https://www.bbc.co.uk/news/business-43742686>

# glass

## introduction

Look around you. How many different things can you see that are made of glass? How many things have you seen or used today that are made of glass? In fact, glass has so many different uses that it's hard to believe the main ingredient is sand. The oldest glass objects that we've found date back to around 3500BC and were made in Egypt and Mesopotamia. In the 1st century BC glass production was made faster, cheaper and easier when the blow pipe was invented by Syrian craftsmen, and between the 7th and 14th centuries glass making really developed in the Islamic world, with new methods of decoration and cutting, and experiments with optics, lenses and chemistry. Glass was used to decorate mosques with beautiful lamps and stained glass windows and it has been suggested that stained glass windows in churches came about after the Crusaders saw these in the Islamic world and brought the idea back to Europe.

### questions to think about

- How many things can you think of that are made of glass?
- What are some of the properties of glass that make it useful?
- What and how does glass help us see?
- How is glass used in medicine and science?
- What is glass made from?
- What are the advantages of glass over plastic?



- Modern buildings use lots of glass on the facades



### where to find out more

- Lots of information about the history and making of glass: <http://www.historyofglass.com/>
- How is glass made? <http://mocomi.com/how-is-glass-made/>
- Make your own glass with this digital game! <http://www.nationalglasscentre.com/learn/digitalresources/glassmakinggame/>
- The rise of the glass industry in the golden age of Muslim civilisation: <http://www.1001inventions.com/glass>
- Uses of glass: <https://www.glassallianceeurope.eu/en/applications>
- <https://www.romag.co.uk/knowledge-hub/>

# maps

## introduction

Finding your way from A to B is so easy nowadays. Highly accurate satellite navigation systems mean that most of us can now use our smartphones and sat navs to plan our journeys in seconds and arrive safely at our destinations with barely any effort at all. But it wasn't always so easy. Throughout human history, people have tried to make sense of the world around them by drawing maps of one sort or another. For many thousands of years these maps remained very inaccurate, providing only very basic details of very small areas of the world. However, the science of map making (known as "cartography") was revolutionised in medieval times by Muslim travellers and explorers who developed new techniques and processes that led to some incredibly accurate maps. One particular pioneer, Muhammad al-Idrisi, spent his lifetime travelling far and wide, measuring and documenting the lands he visited and recording everything in some of the most accurate maps that had ever been seen. His 12th Century maps showed most of Europe, Asia and North Africa, and his techniques laid the foundations for modern map-making and the extremely accurate maps and navigation systems we rely on today.

### questions to think about

- How have maps helped us discover new parts of the world?
- What is the furthest distance you have ever travelled? How would this journey have been different without a map?
- How are maps useful in understanding the history of a place?
- How many different jobs or hobbies can you think of that use maps?
- Can you think of a fictional place that a map helped you to imagine?



Map of Sicily in the anonymous Arabic manuscript called "Book of Curiosities", 13th-century copy of an original written in the second half of the 11th century and preserved at the Bodleian Library, Oxford.



### where to find out more

- Learn more about the history of maps:  
<https://www.gislounge.com/mapping-through-the-ages/>
- How does satellite navigation work?:  
<http://www.bbc.com/future/story/20130927-how-does-sat-nav-really-work>
- Learn more about Islamic contributions to map making (cartography): <http://www.1001inventions.com/maps>
- All about Ordnance Survey maps:  
<https://www.ordnancesurvey.co.uk/about/overview/what-we-do.html>

# medical drugs

## introduction

We use medical drugs for so many different health problems that it's sometimes hard to imagine a world without them. Whether it's syrup for a tickly cough or prescription medicines for something more serious, we rely on medical drugs to help us recover from all kinds of different health conditions. But the drugs we have today are the result of thousands of years of development and innovation, involving contributions from a variety of different peoples and cultures. Indeed, 1000 years ago, Muslim physicians were making some incredible discoveries that would lead to the development of the highly effective drugs we rely on today. The science of drugs (or "pharmacology" as it is known) owes a huge debt of gratitude to people like Ibn Sina who described almost 700 different drug preparations, or Al Kindi who made vital contributions to our understanding of the correct dosages of certain drugs and their effect on patients. So next time you take a pill or swallow some cough syrup, remember the debt we owe to the amazing physicians of the medieval Islamic world.

### questions to think about

- Think of a time that a medical drug made you feel better.
- Do you, or anyone you know, rely on a medical drug to make life easier? What does this drug do?
- What illnesses can now be cured thanks to medical drugs?
- How has life expectancy changed over the past 100 years? How have medical drugs contributed to this?



An early Arabic medical book



### where to find out more

- What is pharmacology?:  
<https://www.bps.ac.uk/about/about-pharmacology/what-is-pharmacology>
- Medicine through time:  
<https://www.bbc.com/bitesize/topics/zwd82hv>
- Learn more about the history of medicine:  
<http://broughttolife.sciencemuseum.org.uk/broughttolife>
- Medical care in Muslim Civilisation:  
<http://www.1001inventions.com/node/1592>
- Medical books in Muslim Civilisation:  
<http://www.1001inventions.com/WorldHealthDay>
- The Islamic roots of pharmacy:  
<http://www.1001inventions.com/pharmacy>

# paper

## introduction

You are probably reading this on a piece of paper. Stop and think about that for a minute: what that really means. Now imagine life without paper. Paper has been around for a really long time (books came later). The earliest mass-produced paper was made in China in 105AD, although some older fragments of paper have been found. This was not the first material used for writing on, though. Egyptians and Greeks were using a plant called papyrus to make a writing surface as early as 3000BC, and other natural materials were also used before paper, such as wood, clay, silk and animal skins. Papermaking methods spread from Chinese to Muslim culture in the 8th century and immediately its value was recognised, with paper mills established in Baghdad. Silk Road traders travelling across Europe and Asia helped to spread paper further and used it for documents as well as wrapping their goods. Paper was essential to Muslim Culture in many ways. It was used to make beautiful and highly prized copies of the Koran. It was also used for making maps, charts and architectural plans, books on a wide variety of topics, and for recording scientific developments, therefore assisting all the new discoveries and developments going on in the Islamic world during this golden age.

### questions to think about

- How many things can you think of that are made of or use paper?
- What did people write on before paper?
- What is paper made from?
- How has paper helped the spread of ideas and knowledge?
- How and why is paper important to you in your daily life?



### where to find out more

- Papermaking in the Muslim world:  
<http://www.1001inventions.com/paper>
- <http://www.muslimheritage.com/article/beginning-paper-industry>
- Islam's gift of paper to the West  
<https://www.nytimes.com/2001/12/29/books/shelf-life-the-story-of-islam-s-gift-of-paper-to-the-west.html>
- How the invention of paper changed the world:  
<https://www.bbc.co.uk/news/the-reporters-38892687>
- Ancient uses of paper:  
<https://www.kew.org/blogs/library-art-and-archives/ancient-uses-paper>

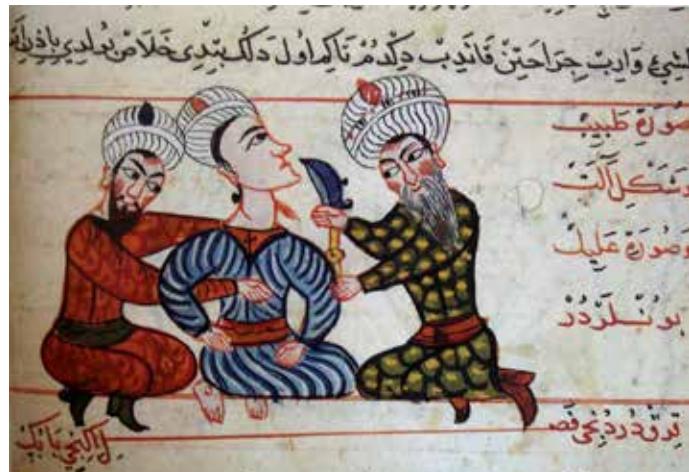
# surgery

## introduction

Have you ever had to go to hospital for surgery? Although it can be a scary business, it's also really amazing to think what surgeons are able to do nowadays. Using cutting-edge equipment, surgeons can help patients recover from all kinds of conditions and problems with less and less side effects as techniques and technologies develop. But surgery is nothing new. Human beings have been performing surgery in one form or another since prehistoric times, with different cultures and societies contributing to its development for many thousands of years. Around one thousand years ago, Muslim pioneers in southern Spain like Abū al-Qāsim al-Zahrāwī were revolutionising the way surgery was understood and performed, with many of their techniques and instruments still being used by surgeons today. Without the incredible advances in surgery that took place in the medieval Islamic world, the miracles that are performed by surgeons in our hospitals today simply wouldn't be possible.

### questions to think about

- When do people have to have surgery?
- What different types of surgery can you think of?
- Have you or anyone you know ever had surgery? How did it help?
- What makes surgery safer nowadays?
- How has surgery improved over the past 100 years?
- Who performs surgery now?
- Who did it in the past?



Surgical operations in the middle Ages, the work of Arab doctors. Al-Zahrawi's book on surgery.

### where to find out more

- Learn more about the history of surgery:  
[http://broughttolife.sciencemuseum.org.uk/  
broughttolife/themes/surgery](http://broughttolife.sciencemuseum.org.uk/broughttolife/themes/surgery)
- Medicine through time:  
<https://www.bbc.com/bitesize/topics/zwd82hv>  
[https://www.bbc.com/bitesize/guides/zxg6wxsl/  
revision/1](https://www.bbc.com/bitesize/guides/zxg6wxsl/revision/1)
- Learn more about the history of medicine:  
[http://broughttolife.sciencemuseum.org.uk/  
broughttolife](http://broughttolife.sciencemuseum.org.uk/broughttolife)
- Medical care in Muslim Civilisation:  
<http://www.1001inventions.com/node/1592>
- Medical books in Muslim Civilisation:  
<http://www.1001inventions.com/WorldHealthDay>

# universities

## introduction

Lots of people decide to go to university to learn more about subjects which they're really interested in. As the name suggests, you can study just about anything in the universe at a university, from distant stars and planets to art, history or languages. But universities do more than just teach students, they are also places where new and important knowledge is produced. For over a thousand years, people in universities all over the world have carried-out amazing research which has led to some of the most important scientific, social and cultural innovations in history. There is a lot of debate about when and where universities first appeared, but it is generally agreed that the oldest surviving university in the world is the University of al-Qarawiyyin in the Moroccan city of Fes, which was founded by Fatima al-Fihriyya, the daughter of a wealthy merchant, in 859 and still teaches students to this day.

### questions to think about

- How is studying at university different from studying at school?
- What are some of the skills you can gain at a university?
- How many jobs can you think of that rely on a university education?
- How does the research done by universities help us?
- How does the Open University work?
- How do you think universities will work in the future?



The oldest university in the world, al-Qarawiyyin University in Fes.



### where to find out more

- Learn more about Fatima al-Fihriyya and other extraordinary women from Islamic history:  
<http://www.1001inventions.com/womensday>
- Why go to university?  
<https://www.timeshighereducation.com/student/news/why-do-students-go-university-and-how-do-they-choose-which-one>
- <https://www.telegraph.co.uk/education/universityeducation/student-life/12047754/Four-reasons-why-university-is-still-a-great-life-choice.html>
- The Open University Open Learning website:  
<https://www.open.edu/openlearn/>

# judging debates & helping first time speakers

## introduction

There are many ways you can judge a classroom debate and this will depend on your aims for the debate. You can be the judge (or another teacher) or you can have a panel of pupil judges. However, it is likely that although the pupils will be very keen to know which team won, you will be using debating as an opportunity to assess pupils' progress in developing skills. There are some very useful resources to help you do this on the Cambridge University Oracy site: <https://www.educ.cam.ac.uk/research/projects/oracytoolkit/tasks/afl/> and the ESU website: [https://www.esu.org/\\_data/assets/pdf\\_file/0021/19641/4-ORACY-SKILL-SETS-A-GUIDE.pdf](https://www.esu.org/_data/assets/pdf_file/0021/19641/4-ORACY-SKILL-SETS-A-GUIDE.pdf)

## judging criteria

Judging a debate is all about determining the persuasiveness of the speeches. Persuasiveness is subjective, but you can use the criteria below to help examine and compare speeches and provide feedback on how speakers can improve. The criteria should be applied holistically: all should be considered when judging a speech and no one aspect is significantly more important than another.

When a decision is not clear because the teams are strong in different areas, the judge should step back and ask: who was I most persuaded by?

## using pupil judges

Judging can be a great way of encouraging less confident pupils to take part in a debate. Judging also helps pupils to analyse what makes a good debate and focus on the skills required. Pupil judges can work together during the planning stage to develop a list of criteria that they can use during the debate to judge. Alternatively, you can adapt the audience task (earlier in this handbook).

Ask judges and pupils in the audience to say two things they liked about each speech and one thing to work on. Encourage peer support and learning from each other.

## constructive feedback

Judges (either pupils or adults) should always provide positive and constructive feedback to speakers. Highlight the strong aspects of a speaker's performance and, rather than criticise elements, suggest areas where the speaker can improve. Positive and constructive feedback builds a speaker's confidence.

## reasoning & evidence

This is about the content of the arguments that a speaker makes and how clearly they explain them - the 'What you say' category. Judges look for clear and logical arguments and well-chosen examples, relevant analogies and a deep analysis of the arguments. All of these tell the judge that the speaker understands the issues in the debate. Facts, statistics, case studies, relevant news stories, and historical references can all add to your case and judges will be impressed if they are used well. Speakers that use REAL (Reason, Evidence, Analysis, Link) will be more likely to be persuasive than speakers whose arguments are not so clearly laid out.

## organisation & prioritisation

It's important to show teamwork between speakers and that the team's arguments are fairly, equitably and sensibly split between the two speakers. Structuring a speech is very important to good debating. Speakers should lay out what they are going to say at the beginning of their speech and should, if possible, follow that structure. Although, there may be many reasons to support a certain case these reasons can normally be usefully grouped into 3 main arguments. Timing is also important. A speaker should speak for their allotted time and also divide their speech sensibly between their different points so the speech is balanced.



## expression & delivery

This is the ‘how you say it’ category. Speakers should use notes rather than writing out their speech in full - reading speeches makes it difficult to make eye contact with the audience, harder for the speaker to react to what other teams say, and awkward if the speaker loses their place on the page. Good debaters speak clearly, loudly and slowly. Speakers who modulate the tone and volume of their voice and use pauses to emphasise points are more interesting to listen to. Think about the choice of words and the structure of sentences. Body language is also important- think about hand gestures and facial expressions and make eye contact with the judges and audience.

## listening & response

As well as focusing on their own speech, a speaker should listen carefully to the other speakers and respond. It can help to make notes during the debate so they can reply to other teams’ points by showing how they disagree. This is called rebuttal. Teams can also interact through Points of Information. The person offering the POI should challenge the speaker the speaker should answer a POI. When summatting a debate, a good debater is able to identify the main disagreements between teams (the ‘key points of clash’) and explain why their team has won. This requires good listening skills as the summatting speaker will need to pick and choose which areas of the debate to focus on.

## supporting first time speakers

For many pupils, speaking in a debate for the first time will be a nerve-wracking experience and even very experienced debaters get nervous before speaking in public. Some confident pupils will immediately volunteer for speaking roles whilst others may be reluctant to speak. They may, however, become more involved in debating over time (speaking in floor debates and then taking part in the debate as a speaker). You will know who will be able to take on speaking roles initially and who will need more help to become a confident speaker.

## building confidence

Let pupils know that it is perfectly natural to be nervous before speaking in a debate and that, in many ways, it is a positive thing – a few nerves can encourage dynamism and quick thinking. Most young people are much better public speakers than they think are. However, many pupils will be very nervous about speaking in public, especially in front of their peers. Encourage a positive mental attitude by encouraging speakers to be confident. Team mates should support each other and pupil coaches should say encouraging words to their teams.

Team mates or pupil coaches help encourage speakers, both in their preparation and showing them that all speakers get nervous before a debate.

## preparation

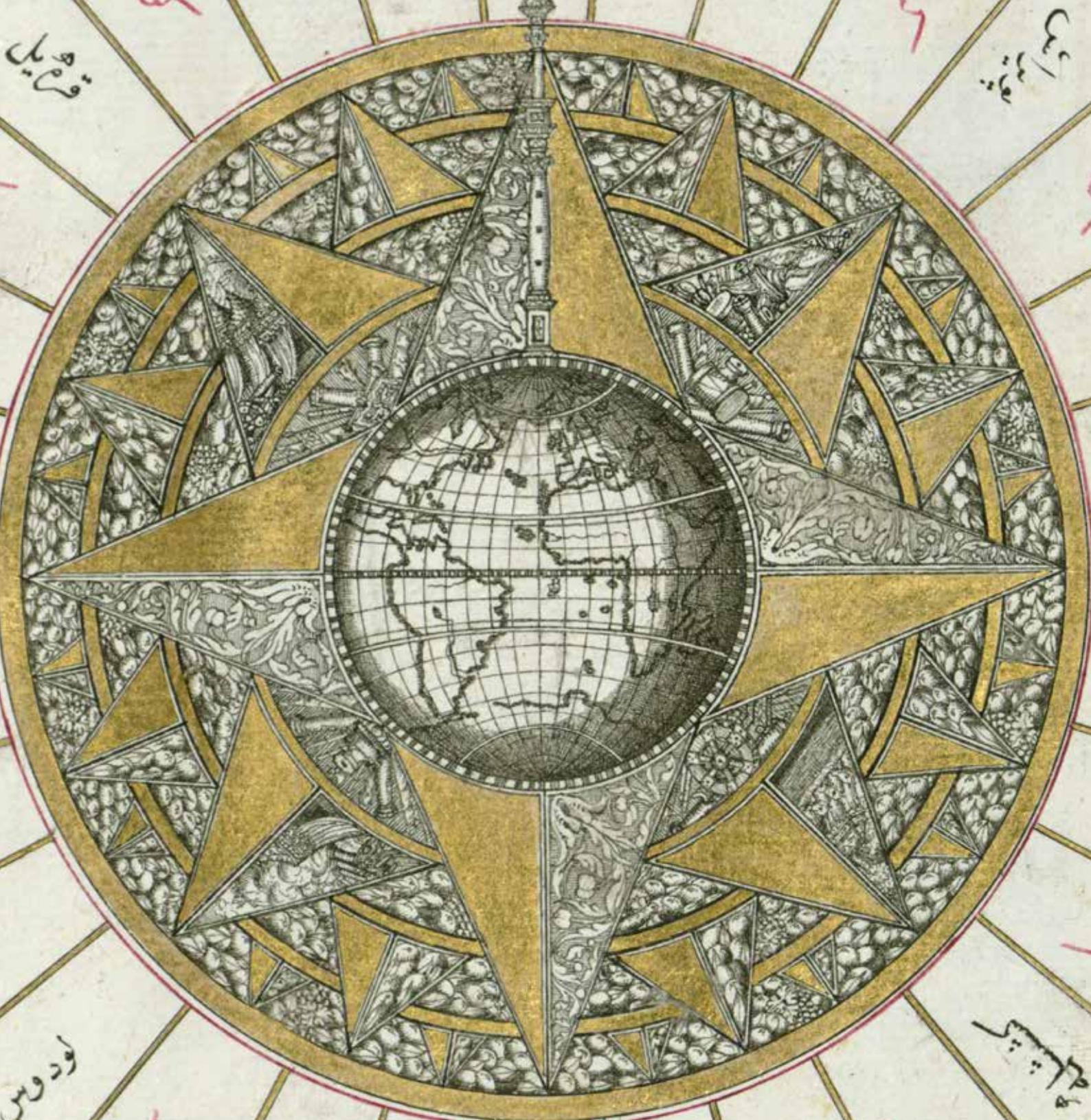
Good preparation helps. The preparation stage will give the pupils plenty of time to plan for the debate and prepare themselves. If a speaker has done a lot of research and worked with others to develop their arguments and practise their speeches, they will be much less nervous.

If a pupil is especially worried before a debate, the teacher can go through their speech with them and offer reassuring advice.

## the audience is on your side!

As the whole class is involved in the debate and has invested time in preparing, they want the speakers to succeed. Speakers should not see the audience as an intimidating factor but remember that they are on their side!

Encourage the audience to applaud when they agree with a point – this will really boost the speakers.



## debating and curriculum for excellence

The format of preparation, debate, and follow-up provides a flexible approach and context for the learner experiences and outcomes detailed in Curriculum for Excellence.

### confident individuals

- Pupils develop skills in a protected environment
- Tasks are allocated so pupils build on their strengths
- Experience of expressing opinions in public

### successful learners

- Develops research skills
- Encourages self-instruction
- Develops structure and logical thinking
- Develops literacy skills

### effective contributors

- Encourages team work as everyone can contribute
- Develops transferable skills
- Ensures pupils are better equipped by being more knowledgeable

### responsible citizens

- Engaging with topical issues and current affairs
- Ability to see both sides of the argument
- Pupils understand debate process and practice