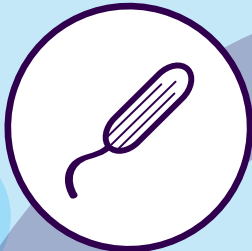


**I'm a
Scientist
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Unisex Toilets



The Royal Institution
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Nikki Baker – Trans teen

Pronouns: She/her



I'm a 16 year old transgirl. I was assigned 'male' at birth on the basis of my external genitalia, but I always knew I was different. It was such a relief to read about people like me and realise I wasn't the only person who felt like this. Since I've come out I feel so much happier. But I find going into the toilets stressful at school as I've been bullied.

Fact: It's hard to work out, but one estimate says that 1% of the UK population – 1 in 100 – is trans. One survey found that 48% of trans people don't feel comfortable using public toilets through fear of being harassed.

Issue: Some people don't like it if I use the boys' toilets, some people don't like it if I use the girls' toilets. This would make things simpler.

Question: Is this really such a big deal?



James Okafor – Police officer

Pronouns: He/him



I work to combat street violence and sexual assault. As a man, I'm sorry to say this, but the vast majority of violence is committed by men. Men are often the victims of it too. Most men aren't violent, but we have to admit that most violence is carried out by men. In schools, toilets may be the only place girls can get away from boys.

Fact: A recent investigation found that the majority of sexual assaults in swimming pools and leisure centres happened in unisex changing rooms. Only 10% happened in single-sex changing areas.

Issue: I think we are risking the safety of 50% of the pupils in this school in order to protect 1%.

Question: Half the people in this school are girls, can't they have ONE safe space away from boys?





Joe Mallett – Husband



Pronouns: He/him

My wife recently had a urinary infection. She often desperately needed a wee and was in pain. It really brought home to me how often there's a queue for the women's toilets – in cafes, in bars, in shops. There's almost never a queue for the men's. Unisex toilets are one way of making things fairer.

Fact: On average, women take 90 seconds to use the toilet, vs 40 seconds for men. Partly because women sit for everything, and may need to change sanitary protection. You need twice as many women's toilets as men's to have waiting times be about the same for both.

Issue: The quickest, cheapest and easiest way to make enough toilets for everyone in schools, is to make all existing ones unisex.

Question: Why would it be a problem for everyone to use the same toilets? It's what we all do at home, isn't it?



Brett Mitchell – Concerned father

Pronouns: He/him



You could say I'm a pretty traditional guy.

I like football, cars and fishing. I love my wife.

She's wonderful: a great baker and really good with kids. I do the DIY and she does the sewing, we know our roles in life. We are happy with the way we are. I think all this modern stuff is nonsense. Men want to be men and women want to be women. Stop trying to change us!

Fact: Sexual dimorphism (males being significantly different to females) is common in most animals. From peacocks to lions, it's natural for males and females to be different.

Issue: I think sex differences are just the way things are and it's stupid to pretend otherwise.

Question: What will happen to the world if men can't be men anymore and women can't be women?





Robin Koh – Librarian



Pronouns: They/them

Growing up, I never felt like my 'assigned' gender, or, really, like the other gender. Or maybe, I felt a bit of both. There are societies around the world today, and in the past, who have more than two genders. For example, to the native Hawaiians some people were 'Māhū' – a gender somewhere in between male and female. Some societies have four or more genders! And when it comes to biological sex, there are people who develop in different ways. It's not as simple as 'female = XX' and 'male = XY'. Humans just aren't like that.

Fact: Some researchers estimate that up to 17 out of every 1,000 babies will be born with Differences of Sex Development or intersex. Others approximate the figure to be 2, or less, out of every 1,000. There are different ways we develop and many would be unaware without genetic testing.

Issue: Most public toilets force us all to put ourselves into gendered boxes several times a day. It's a constant emphasis on something that just isn't relevant.

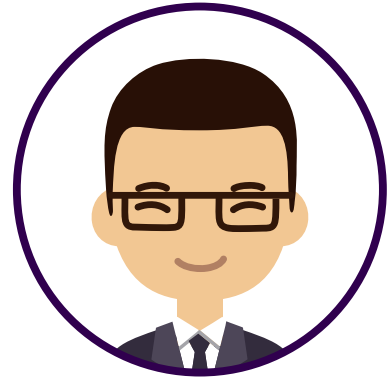
Question: Why do we place so much importance on gender all the time? And why do we care what shape a stranger's genitals are?





Silver Collins – Sci-fi author

Pronouns: They/them



In my book my characters have no gender, and I think they are more interesting and complex because of that. Look at something as simple as height, men on average are slightly taller than women, but most of the graph is overlapping. For many character traits and abilities there's an average difference, but a lot of overlap. For some things there's no difference. We get trained and socialised to be different. But we all start off as human beings.

Fact: In an experiment, adults treated the same newborn baby differently depending on if it was dressed in blue or in pink. Boys and girls are treated differently from the minute they are born.

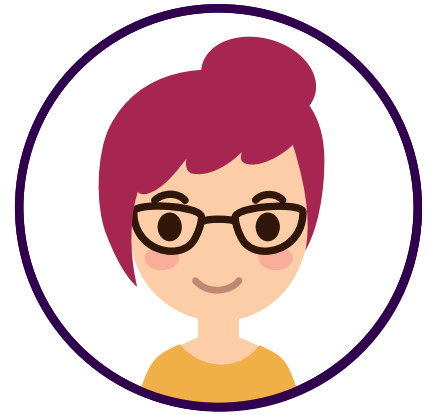
Issue: If we stop making such a big deal about gender roles, maybe people will be free to just be themselves.

Question: What would you do with your life if you were free from any ideas about what men and women are supposed to be like?



Emily Kovacs – Teenage girl

Pronouns: She/her



I watch my parents, and my mum does five times as much housework as my dad.

Men aren't socialised to notice mess and dirt, or to feel like it's their job to sort it out. Women are, in our present society. When you pass the boys' toilets they smell and are just minging. I don't want to deal with that. I want to keep our nice, clean, non-smelly girls' toilets just the way they are.

Fact: Men in Denmark do 107 minutes of housework every day – men in the UK do 66 minutes a day. Not because of Danish men's brains are different or anything. But because the way they are socialised is different.

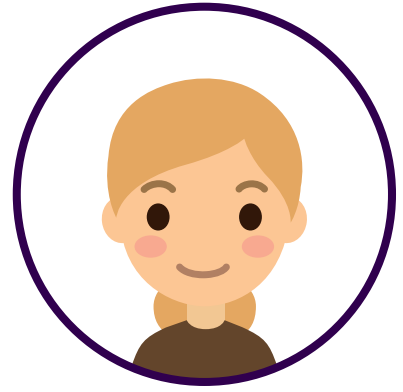
Issue: Women and girls spend enough time clearing up after men. They don't need to do it in the toilet too!

Question: Who does the housework in your house? Why do you think it is like that?





Caitlin Murphy – Allergy sufferer



Pronouns: She/her

I have a rare allergy and can't use most tampons and sanitary towels.

I now use a menstrual cup, which I love. It's so easy, no mess and reusable, so it's better for the environment. But after I've emptied it into the toilet, I need to wash it out. I usually go out of the cubicle and wash it in the sinks – most of the other girls have periods and know what it's like. They don't mind a bit of blood. But, to be honest, I feel horrified at the thought of having to do that with boys there.

Fact: The average woman is menstruating for 4 days out of every 28 – that's 52 days a year.

Issue: Periods are still taboo for a lot of people. This would be embarrassing and awkward for many girls.

Question: How would you feel if you had to wash your menstrual cup in front of everyone?



Teacher Notes



Question:

Should schools make all their toilets unisex?

Lesson plan

The different 'rounds' of the debate help students think through the issues and reconsider their opinions. The structure also shows them how to build a discussion and back up their opinions with facts.

Go to debate.imascientist.org.uk/unisex-toilets-resources for a slide presentation and additional resources to support the debate lesson. Please also share your class thoughts throughout the debate using this site.

Starter: 5 minutes.

Think, pair, share – How do we define biological sex? Chromosomes? Genitalia? What does gender mean to them? Where does gender come from? Does gender mean the same thing to them as to their parents or grandparents? Do they think gender means the same thing wherever you are in the world?

KS4: These debate kits have been used with ages 11-18.

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Main Activity: 35 minutes.

1. Split students into as many groups as characters you want to cover.
2. Give them their character cards – one per group, and give them a few minutes to read them over.
3. Get one student in each group to read out their first section to the rest of the class. What are the class's initial thoughts? Is there one position they identify with or reject?
4. Take it in turns to read out their fact. Does it change the way they think?
5. Read the issue. Any different feelings?
6. Each team asks their question to the character of their choice.

Support: To help students you can put the following prompt sentences up on the board:

"I think we should/shouldn't have unisex toilets because....."
"I think is the most important point to think about."

Plenary: 10 minutes

Vote for which position they agree with most (if there is one). Why? Which arguments were the most persuasive? Please share your class thoughts with us at debate.imascientist.org.uk/unisex-toilets-resources

Note – Pupils can stay in roles all the way through debate, or only for the first round if you prefer. If it's all the way through, give them a chance to express their own opinion at the end and in the plenary.

For groups who are not confident at class discussion, it might help to have them start by discussing the question and/or their character's position in pairs, and then compare notes in fours. They've then had chance to rehearse some of what they want to say before having to do it in front of the whole class.

Background notes for teachers

Biological sex

Humans, like most species of organism, are **sexually dimorphic**: they come in two main varieties, male and female. In most (but not all) species of organism, males produce small and numerous **gametes** (sperm, pollen) and females produce larger and less numerous gametes (ova or egg cells).

In humans and other mammals, males usually have an **X chromosome** and a Y chromosome (they are XY), and females usually have two X chromosomes (they are XX). The different mechanics of these gametes, and the actions of these chromosomes lead to different primary (ovaries, vagina, etc) and secondary (breasts, facial hair, etc) sexual characteristics in a typically developing individual, according to their sex.

We usually assume that what type of gamete you carry, your XY chromosome status, and your primary and secondary sexual characteristics all match up. Babies are described as female or male according to their external **genitalia** as observed at birth.

But a number of different things can cause one or more of these things to be at odds with each other, or be non-typical. Sometimes, during **meiosis**, a gamete is produced which carries two sex-determining chromosomes (an XY or YY sperm or an XX

egg). This results in an **embryo** which is XXY (or even XXXY or XXXXY), or XYY. Or, gamete production can also result in an individual who has only a single X chromosome.

Various mutations affecting hormones or metabolic pathways can mean that although an embryo is XY or XX, they do not develop typically. They may have ambiguous genitalia, or they may have genitalia which appears at odds with their chromosomal sex. Most people, in fact, never find out their chromosomal sex, unless they are having genetic testing (for example, to find out if they are a carrier of a genetic condition which runs in their family).

Human **chimeras** have been discovered, where two different embryos have fused in the womb, to become one embryo with a mosaic of cells from the two. In some cases some of those cells are XX and some XY. This is rare, but scientists have recently discovered that another form of human chimera is very common: maternal and foetal cells cross the placenta. So a male child may carry some of his mother's cells in his body, well into adulthood. And a mother of a son may have male cells in her body for decades after giving birth.

Gender

Well, if you thought biological sex had just got complicated... Gender is all the social, human stuff that goes along with it. Theorists make a distinction between **gender identity** (i.e. which gender one feels oneself to be), **gender role** (i.e. the expectations society places upon you) and **gender expression** (i.e. the way you behave and express yourself).

Some people feel (typically from a very young age) that their gender identity is at odds with their observed biological sex.



Support and resources for teachers

There may well be trans students in your class, or students questioning their gender identity. Here are some resources you may find useful. Some are about making your classroom safe and inclusive. Some are about sources of further support (e.g. if a student has been affected by the content of the kit and wants to talk to someone about it).

Short article on having a trans inclusive classroom:
theguardian.com/teacher-network/teacher-blog/2014/oct/29/transgender-supporting-students-school-lgbt

Guidance for schools on supporting transgender young people from Stonewall Scotland (60 page pdf): lgbtyouth.org.uk/media/1344/supporting-transgender-young-people.pdf

Various factsheets and guidance for schools from the Gender Identity Research and Education Society (GIRES): gires.org.uk/information-for-educators

Gendered Intelligence are a not-for-profit who offer training for teachers and school staff, workshops and assemblies for students, and mentoring and youth groups for trans and gender diverse young people: genderedintelligence.co.uk/education/overview

These links, plus additional resources, can be found on the *I'm a Scientist* Debate Kit website: debate.imascientist.org.uk/unisex-toilets-resources

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(the gender they were assigned at birth) and they may go on to identify as **trans** (having a gender identity at odds with that assigned at birth), and/or **non-binary** (identifying as neither male nor female, or feeling like a mixture of both).

It's also possible to feel at home with your assigned gender identity, but object to the gender role society offers you. In the same way as you might object to things your government does, or aspects of Irish or British culture, but it doesn't mean you feel like you're really French instead. For example, women may object to pressure to be thin/beautiful/interested in baking. Men may not want to bottle up their feelings or be stereotypically macho. Trans people have a qualitatively different experience – to continue the above analogy, their experience is that they are French, they were just born in Britain.

The behaviours, interests, appearance seen as appropriate for a given gender vary through time, around the world, in different cultures, within and between communities, even between families.

All facts in this kit have been researched and references can be found online at debate.imascientist.org.uk/unisex-toilets-resources

Special thanks to Sascha Amel-Kheir, Volunteer Coordinator at Gendered Intelligence, and to Carrie Paechter, Director at the Nottingham Centre for Children, Young People and Families.

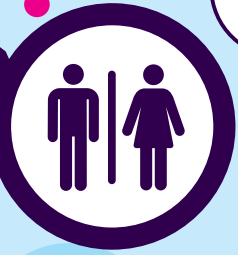
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Science Debate Kit: Unisex Toilets



For more activities and debate kits in this series go to debate.imascientist.org.uk

Debate Kit: Unisex Toilets

Should schools make all their toilets unisex?

A structured practice debate on a controversial topic.

The different 'rounds' of the debate help students think through the issues and reconsider their opinions.

The structure also shows them how to build a discussion and back up their opinions with facts.

You can use all eight characters, or fewer, as you wish.

The minimum is the four essential characters (**in bold**), this gives two for and two against.

Characters

Yes – Schools should make all their toilets unisex

- **Nikki Baker** – Trans teen
- **Silver Collins** – Sci-fi author
- Joe Mallett – Husband
- Robin Koh – Librarian

No – Schools should not make all their toilets unisex

- **James Okafor** – Police officer
- **Caitlin Murphy** – Allergy sufferer
- Brett Mitchell – Concerned father
- Emily Kovacs – Teenage girl

Facilitation tips

- Ensure pupils know there is no right or wrong answer.
- Be observant of ones who want to speak and are not getting a chance.
- Encourage students to give a reason for their opinions.

Designed for KS4 but can be used with ages 11-18.

For groups who may need extra support you can put the following prompt sentences upon the board:

"I think we should/shouldn't have unisex toilets because..."

"I think is the most important point to think about."

Learning notes

Learning objectives:

- To practise discussing and debating issues and expressing an opinion

Other learning outcomes:

- Consider social, ethical and factual issues in an integrated way
- Think about different points of view
- Learn to back up their opinions with facts

Curriculum points covered:

Thinking scientifically

- Societal aspects of scientific evidence
- Developing an argument

Substantive

- Some aspects of human reproduction



"Particularly like the format plus the accuracy of the scientific information"