

# Senior Cycle Maths Resource

**Unit: Mathematics, Society and Representation** 



## **Teacher Notes: Pedagogical Approach for Lessons**

- Create safety together: We suggest that a way to begin Stand Up Awareness Week
  lessons is by co-constructing classroom agreements with your students that
  emphasise safety and respect confidentiality. This helps everyone feel secure and
  valued. Display the agreements in the classroom or keep a copy in student journals
  or copies. What values are important to your students and what do they need to feel
  respected and safe?
- Keep an open mind: Use language that welcomes all identities and experiences, avoiding assumptions about sexuality, gender or family structure. (all voices included)
- Pause and reflect: Take time to notice your own comfort levels, possible biases, or areas where you might want to grow your knowledge. This modelling of reflection shows students that learning is ongoing for everyone.
- **Support deeper learning**: Give students opportunities to think quietly, speak when ready, reflect individually and ask questions. A layered approach helps everyone engage at their own pace.
- **Protect student choice**: Encourage participation, but never expect or ask students to share personal stories in order to make the learning 'real'. Their voices matter, but their privacy matters too.
- Shape respectful dialogue: Debate and discussion can be powerful, but not every issue should be up for debate. Work with your students to agree on safe and respectful boundaries for discussions, so the classroom remains supportive for all.
- Belong To's e-learning module is a fantastic resource to learn how to best create a safe inclusive environment at school. (Accessible at: <a href="https://www.belongto.org/training/">https://www.belongto.org/training/</a>)
- Free speech is not hate speech! Hateful comments are never acceptable.
- The resources listed here promote inclusion and belonging and are intended as an aid for schools to help implement their **Bí Cineálta policy.**

**Year:** 5<sup>th</sup> and 6<sup>th</sup> Year - Levels are adaptable

Relevant Strands: Statistics and Probability, Algebra, Functions

# Lesson 1: Inclusive Data – Who Gets Counted?

### **Learning Intentions**

- To understand how bias can sometimes exist in the collection and presentation of data
- To explore inclusive survey design and representation in statistics.
- To critically analyse demographic data related to gender, sexuality and identity

#### **Materials Needed**

- OECD Findings on Bullying in School
   (https://www.oecd.org/content/dam/oecd/en/publications/reports/2017/07/how-much-of-a-problem-is-bullying-at-school 627d9225/728d6464-en.pdf)
- 2022 School Climate Survey Key Findings
   (https://www.belongto.org/app/uploads/2023/07/2022-School-Climate-Survey Key-Findings.pdf)

## **Activity 1: Spot the Bias**

The teacher will present two versions of a survey question. **Example**:

- Version 1 (Biased): "Do you think the new law on school funding is a good idea?"
- Version 2 (Inclusive): "What is your opinion on the new law regarding school funding?"

Discuss: Which is the more inclusive statement? Why does it matter in data collection? (Answer: It is extremely important to ask the right questions!)

#### **Quick Reflection Prompts:**

- Why does it matter how questions are asked in maths and statistics?
- Why does language matter when it comes to people feeling included?

## **Activity 2: Data Comparison**

Students compare two studies - The first from page 2 of the OECD Findings and the second from page 5 of the 2022 School Climate Survey Key Findings from Belong To.

How does the data differ when a marginalised group is highlighted? What is hidden in the broader data from the OECD and what is illuminated in the data from Belong To?

## **Activity 3: Create Your Own Inclusive Statistics**

Students find a statistic about inequality or inclusion that they care about and present it graphically, with clear explanation of source and method.

## **Quick Reflection Prompt:**

How can numbers help us tell more representative, inclusive stories?