

APPENDIX E: LESSONS BY CATALYZING CHANGE MATHEMATICAL CONTENT DOMAINS, SOCIAL JUSTICE OUTCOMES, AND SOCIAL JUSTICE TOPICS

Lessons by Mathematical Content Domain

Mathematical Content Domain	Lesson Title
Whole Numbers and Operations	<p>5.6: <i>Challenging Ableist Assumptions in Mathematics Problems</i></p> <p>6.5: <i>More Than an Athlete</i></p> <p>7.1: <i>Water Is Our Right, Water Is Our Responsibility</i></p> <p>7.2: <i>Upper Elementary Mathematics to Explore People Represented in Our World and Community</i></p> <p>7.3: <i>Single-Use Plastics</i></p>
Fraction Concepts and Operations	<p>5.1: <i>Families Matter</i></p> <p>5.4: <i>Family Story Problems</i></p> <p>6.1: <i>"Tu lucha es mi lucha": Mathematics for Movement Building</i></p> <p>6.2: <i>Exploring Equitable Pay for Work</i></p> <p>6.3: <i>Modeling Library Funding</i></p> <p>6.4: <i>The Value of a School Lunch</i></p> <p>6.5: <i>More Than an Athlete</i></p> <p>6.6: <i>Your Action Saves Lives: COVID-19 and Systems Thinking</i></p> <p>7.3: <i>Single-Use Plastics</i></p>
Data Concepts and Statistical Thinking	<p>5.2: <i>Playground Prejudice</i></p> <p>5.3: <i>Who Appears in Billboards?</i></p> <p>5.5: <i>Exploring Maskmatics! Sociocultural and Environmental Concerns With Disposable Masks During COVID-19</i></p> <p>6.2: <i>Exploring Equitable Pay for Work</i></p> <p>6.3: <i>Modeling Library Funding</i></p> <p>6.5: <i>More Than an Athlete</i></p> <p>7.2: <i>Upper Elementary Mathematics to Explore People Represented in Our World and Community</i></p>

Lessons by Social Justice Outcome, Grades 3–5

Social Justice Outcome, Grades 3–5 (Learning for Justice, 2016)	Lesson Title
Identity	
1 Students will develop positive social identities based on their membership in multiple groups in society.	5.3: <i>Who Appears in Billboards?</i>
2 Students will develop language and historical and cultural knowledge that affirm and accurately describe their membership in multiple identity group.	5.4: <i>Family Story Problems</i>
5 Students will recognize traits of the dominant culture, their home culture, and other cultures and understand how they negotiate their own identity in multiple spaces.	5.1: <i>Families Matter</i> 5.4: <i>Family Story Problems</i> 5.5: <i>Exploring Maskmatics! Sociocultural and Environmental Concerns With Disposable Masks During COVID-19</i>
Diversity	
6 Students will express comfort with people who are both similar to and different from them and engage respectfully with all people.	5.1: <i>Families Matter</i> 5.3: <i>Who Appears in Billboards?</i> 5.6: <i>Challenging Ableist Assumptions in Mathematics Problems</i>
7 Students will develop language and knowledge to accurately and respectfully describe how people (including themselves) are both similar to and different from each other and others in their identity groups.	5.6: <i>Challenging Ableist Assumptions in Mathematics Problems</i> 7.2: <i>Upper Elementary Mathematics to Explore People Represented in Our World and Community</i>
8 Students will respectfully express curiosity about the history and lived experiences of others and will exchange ideas and beliefs in an open-minded way	5.4: <i>Family Story Problems</i> 6.6: <i>Your Action Saves Lives: COVID-19 and Systems Thinking</i> 7.1: <i>Water Is Our Right, Water Is Our Responsibility</i> 7.2: <i>Upper Elementary Mathematics to Explore People Represented in Our World and Community</i>
9 Students will respond to diversity by building empathy, respect, understanding, and connection.	5.5: <i>Exploring Maskmatics! Sociocultural and Environmental Concerns With Disposable Masks During COVID-19</i> 5.6: <i>Challenging Ableist Assumptions in Mathematics Problems</i> 7.3: <i>Single-Use Plastics</i>
10 Students will examine diversity in social, cultural, political, and historical contexts rather than in ways that are superficial or oversimplified.	6.1: <i>“Tu lucha es mi lucha”: Mathematics for Movement Building</i> 6.2: <i>Exploring Equitable Pay for Work</i>
Justice	
11 Students will recognize stereotypes and relate to people as individuals rather than representatives of groups.	5.4: <i>Family Story Problems</i>

Social Justice Outcome, Grades 3–5 (Learning for Justice, 2016)	Lesson Title
12 Students will recognize unfairness on the individual level (e.g., biased speech) and injustice at the institutional or systemic level (e.g., discrimination).	5.1: <i>Families Matter</i> 5.3: <i>Who Appears in Billboards?</i> 6.1: <i>“Tu lucha es mi lucha”: Mathematics for Movement Building</i> 6.2: <i>Exploring Equitable Pay for Work</i> 6.3: <i>Modeling Library Funding</i>
13 Students will analyze the harmful impact of bias and injustice on the world, historically and today	5.2: <i>Playground Prejudice</i> 6.2: <i>Exploring Equitable Pay for Work</i>
14 Students will recognize that power and privilege influence relationships on interpersonal, inter-group, and institutional levels and consider how they have been affected by those dynamics.	5.5: <i>Exploring Maskmatics! Sociocultural and Environmental Concerns With Disposable Masks During COVID-19</i> 6.3: <i>Modeling Library Funding</i> 6.4: <i>The Value of a School Lunch</i> 6.6: <i>Your Action Saves Lives: COVID-19 and Systems Thinking</i> 7.2: <i>Upper Elementary Mathematics to Explore People Represented in Our World and Community</i>
15 Students will identify figures, groups, events, and a variety of strategies and philosophies relevant to the history of social justice around the world.	6.1: <i>“Tu lucha es mi lucha”: Mathematics for Movement Building</i> 7.1: <i>Water Is Our Right, Water Is Our Responsibility</i>
Action	
16 Students will express empathy when people are excluded or mistreated because of their identities and concern when they themselves experience bias.	5.2: <i>Playground Prejudice</i>
17 Students will recognize their own responsibility to stand up to exclusion, prejudice, and injustice	5.2: <i>Playground Prejudice</i> 5.3: <i>Who Appears in Billboards?</i> 6.5: <i>More Than an Athlete</i> 7.1: <i>Water Is Our Right, Water Is Our Responsibility</i>
18 Students will speak up with courage and respect when they or someone else has been hurt or wronged by bias	6.5: <i>More Than an Athlete</i>
19 Students will make principled decisions about when and how to take a stand against bias and injustice in their everyday lives and will do so despite negative peer or group pressure.	6.1: <i>“Tu lucha es mi lucha”: Mathematics for Movement Building</i> 6.2: <i>Exploring Equitable Pay for Work</i> 6.5: <i>More Than an Athlete</i>

Social Justice Outcome, Grades 3–5 (Learning for Justice, 2016)	Lesson Title
20 Students will plan and carry out collective action against bias and injustice in the world and will evaluate what strategies are most effective.	5.1: <i>Families Matter</i> 5.5: <i>Exploring Maskmatics! Sociocultural and Environmental Concerns With Disposable Masks During COVID-19</i> 6.3: <i>Modeling Library Funding</i> 6.4: <i>The Value of a School Lunch</i> 6.5: <i>More Than an Athlete</i> 6.6: <i>Your Action Saves Lives: COVID-19 and Systems Thinking</i> 7.3: <i>Single-Use Plastics</i>

Lessons by Social Justice Topic

Social Justice Topic	Lesson Title
Bullying and Bias	5.2: <i>Playground Prejudice</i>
Cultural, Racial, and Global Diversity	5.3: <i>Who Appears in Billboards?</i> 5.4: <i>Family Story Problems</i> 7.2: <i>Upper Elementary Mathematics to Explore People Represented in Our World and Community</i>
Disability/Ableism	5.6: <i>Challenging Ableist Assumptions in Mathematics Problems</i>
Economic Inequality	6.2: <i>Exploring Equitable Pay for Work</i>
Education Justice	6.3: <i>Modeling Library Funding</i>
Environmental Justice	5.5: <i>Exploring Maskmatics! Sociocultural and Environmental Concerns With Disposable Masks During COVID-19</i> 7.1: <i>Water Is Our Right, Water Is Our Responsibility</i> 7.3: <i>Single-Use Plastics</i>
Food Insecurity	6.4: <i>The Value of a School Lunch</i>
Health Care Justice	6.6: <i>Your Action Saves Lives: COVID-19 and Systems Thinking</i>
LGBTQIA+ Rights	5.1: <i>Families Matter</i>
Race and Ethnicity	5.3: <i>Who Appears in Billboards?</i> 6.5: <i>More Than an Athlete</i>
Rights and Activism	6.1: <i>“Tu lucha es mi lucha”: Mathematics for Movement Building</i> 6.5: <i>More Than an Athlete</i>