

# APPENDIX E: LESSONS BY ESSENTIAL MIDDLE GRADES CONCEPTS, SOCIAL JUSTICE GRADES 6–8 OUTCOMES, AND SOCIAL JUSTICE TOPICS

## Lessons by Essential Middle Grades Concepts

Grade	Essential Middle Grades Concepts	Lesson Title
	<b>Number</b>	
6	Apply and extend previous understandings of numbers to the system of rational numbers.	6.2 Cor(o)ner Stores and Food Apartheid 8.1 Gerrymandering of Voting Districts
7	Apply and extend previous understandings of operations with fractions.	6.4 Middle School Mathematics to Explore People Represented in Our World and Community
7	Solve real-world and mathematical problems involving the four operations with rational numbers.	6.3 Billionaire Power
	<b>Ratios and Proportions</b>	
6	Understand ratio concepts and use ratio reasoning to solve problems.	6.2 Cor(o)ner Stores and Food Apartheid 7.1 Hey Google, Who's a Mathematician? 7.2 The True Cost of That \$29 T-Shirt in the Store Window 8.1 Gerrymandering of Voting Districts
7	Analyze proportional relationships and use them to solve real-world and mathematical problems.	6.4 Middle School Mathematics to Explore People Represented in Our World and Community 7.1 Hey Google, Who's a Mathematician? 7.2 The True Cost of That \$29 T-Shirt in the Store Window 7.4 Smoking and Vaping: Targeting of Marginalized Communities by the Tobacco Industry 9.3 Gender Pay Gap
	<b>Algebra: Expressions, Equations, and Functions</b>	
6	Apply and extend previous understandings of arithmetic to algebraic expressions.	6.1 Food Apartheid: Graphing and Understanding Access to Healthy Food

Grade	Essential Middle Grades Concepts	Lesson Title
7	Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	8.1 Gerrymandering of Voting Districts
8	Analyze and solve linear equations and pairs of simultaneous linear equations.	8.2 National Team Pay Investigation
	<b>Statistics and Probability</b>	
6	Summarize and describe distributions.	9.2 The Mathematics of Toxic Air Emissions 9.3 Gender Pay Gap
7	Draw informal comparative inferences about two populations.	6.4 Middle School Mathematics to Explore People Represented in Our World and Community
8	Investigate patterns of association in bivariate data.	8.3 The Black Vote in America: Impact of the 1965 Voting Rights Act 9.3 Gender Pay Gap
	<b>Geometry</b>	
6	Solve real-world and mathematical problems involving area, surface area, and volume.	10.1 Map Projections 10.2 3D Modeling for Water 10.4 Accessible Playground
7	Draw, construct, and describe geometrical figures, and describe the relationships between them.	10.4 Accessible Playground
7	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	10.1 Map Projections 10.2 3D Modeling for Water

### Lessons by Social Justice Standards: Grades 6–8 Outcomes

	Social Justice Outcomes, Grades 6–8 (Learning for Justice, 2016)	Lesson Title
	<b>Identity</b>	
3	I know that overlapping identities combine to make me who I am and that none of my group identities on their own fully defines me or any other person.	7.6 Health Inequalities: COVID and Other Health Conditions
5	I know there are similarities and differences between my home culture and the other environments and cultures I encounter, and I can be myself in a diversity of settings.	10.3 Water Is Life—Our Collective Past, Present, and Future

	<b>Social Justice Outcomes, Grades 6–8 (Learning for Justice, 2016)</b>	<b>Lesson Title</b>
	<b>Diversity</b>	
7	I can accurately and respectfully describe ways that people (including myself) are similar to and different from each other and others in their identity groups.	6.4 Middle School Math to Explore People Represented in Our World and Community
8	I am curious and want to know more about other people's histories and lived experiences, and I ask questions respectfully and listen carefully and non-judgmentally.	6.4 Middle School Math to Explore People Represented in Our World and Community 8.2 National Team Pay Investigation 10.4 Accessible Playground
10	I can explain how the way groups of people are treated today, and the way they have been treated in the past, shapes their group identity and culture.	7.1 Hey Google, Who's a Mathematician? 10.3 Water Is Life—Our Collective Past, Present, and Future
	<b>Justice</b>	
12	I can recognize and describe unfairness and injustice in many forms including attitudes, speech, behaviors, practices, and laws.	6.1 Food Apartheid: Graphing and Understanding Access to Healthy Food 7.2 The True Cost of that \$29 T-Shirt in the Store Window 7.3 Majority and Power 7.4 Smoking and Vaping: Targeting of Marginalized Communities by the Tobacco Industry 7.5 Health, Race, and Ratios 8.1 Gerrymandering of Voting Districts 8.2 National Team Pay Investigation 8.3 The Black Vote in America: Impact of the 1965 Voting Rights Act 9.1 Playing With Data 9.2 The Mathematics of Toxic Air 9.3 Gender Pay Gap 9.4 How Many Meals Can Minimum Wage Buy? 10.1 Map Projections 10.2 3D Modeling for Water 10.4 Accessible Playground 10.5 Investigating Areas to Determine Fairness
13	I am aware that biased words and behaviors and unjust practices, laws and institutions limit the rights and freedoms of people based on their identity groups.	8.1 Gerrymandering of Voting Districts 8.3 The Black Vote in America: Impact of the 1965 Voting Rights Act 9.3 Gender Pay Gap

	<b>Social Justice Outcomes, Grades 6–8 (Learning for Justice, 2016)</b>	<b>Lesson Title</b>
14	I know that all people (including myself) have certain advantages and disadvantages in society based on who they are and where they were born.	6.2 Cor(o)ner Stores and Food Apartheid 6.3 Billionaire Power 6.4 Middle School Math to Explore People Represented in Our World and Community 7.3 Majority and Power 7.6 Health Inequalities: COVID and Other Health Conditions 8.2 National Team Pay Investigation 9.1 Playing With Data 10.3 Water Is Life—Our Collective Past, Present, and Future
15	I know about some of the people, groups and events in social justice history and about the beliefs and ideas that influenced them.	9.3 Gender Pay Gap 9.4 How Many Meals Can Minimum Wage Buy?
	<b>Action</b>	
16	I am concerned about how people (including myself) are treated and feel for people when they are excluded or mistreated because of their identities.	7.4 Smoking and Vaping: Targeting of Marginalized Communities by the Tobacco Industry 9.1 Playing With Data
17	I know how to stand up for myself and for others when faced with exclusion, prejudice, and injustice.	9.2 The Mathematics of Toxic Air
19	I will speak up or take action when I see unfairness, even if those around me do not, and I will not let others convince me to go along with injustice.	7.4 Smoking and Vaping: Targeting of Marginalized Communities by the Tobacco Industry 7.5 Health, Race, and Ratios 9.2 The Mathematics of Toxic Air 9.4 How Many Meals Can Minimum Wage Buy?
20	I will work with friends, family and community members to make our world fairer for everyone, and we will plan and coordinate our actions in order to achieve our goals.	6.1 Food Apartheid: Graphing and Understanding Access to Healthy Food 6.2 Cor(o)ner Stores and Food Apartheid 6.3 Billionaire Power 7.2 The True Cost of that \$29 T-Shirt in the Store Window 7.3 Majority and Power 8.2 National Team Pay Investigation 10.1 Map Projections 10.2 3D Modeling for Water 10.4 Accessible Playground

## Lessons by Social Justice Topic

Social Justice Topic	Lesson Title
Ability	10.4 Accessible Playground
Civil Rights and Governmental Laws	7.3 Majority and Power 8.1 Gerrymandering of Voting Districts 8.2 National Team Pay Investigation 10.5 Investigating Areas to Determine Fairness
Economic Inequality	6.3 Billionaire Power 8.3 The Black Vote in America: Impact of the 1965 Voting Rights Act 9.3 Gender Pay Gap 9.4 How Many Meals Can Minimum Wage Buy?
Environmental Issues	9.2 The Mathematics of Toxic Air 10.3 Water Is Life—Our Collective Past, Present, and Future
Health Inequality	6.1 Food Apartheid: Graphing and Understanding Access to Healthy Food 6.2 Cor(o)ner Stores and Food Apartheid 7.4 Smoking and Vaping: Targeting of Marginalized Communities by the Tobacco Industry 7.5 Health, Race, and Ratios 7.6 Health Inequalities: COVID and Other Health Conditions
Human Rights	7.2 The True Cost of that \$29 T-Shirt in the Store Window 10.2 3D Modeling for Water
Representation	7.1 Hey Google, Who's a Mathematician? 10.1 Map Projections
World Diversity	6.4 Middle School Math to Explore People Represented in Our World and Community