

BioFutures: A Biomass Energy Education Supplement to the KEEP Energy Education Activity Guide
Common Core State Standards for English Language Arts and Mathematics
Next Generation Science Standards

Activity	Common Core English Language Arts	Common Core Math		Next Generation Science Standards (NGSS)			
		Practice Standard	Content Standard	Standard	SEP	DCI	CCC
Photosynthesis Promenade	L.K.4.A, L.K-2.6, L.K.5.A&D, L.1.4, L.1-3.5.B, L.2.4.A-E, L.2&4.3, L.3.4.A-D, L.2.5.A, L.4.4.A-B, RI.2-4.3, RI.3.4, RL.4.5, SL.K-1.1.A, SL.K-2.1, SL.K.3-4&6, SL.1-2.1.B&C, SL.1.4, SL.2.1.A, SL.2.2, SL.3.1.A-B&D, SL.3.3&6, SL.4.1.A-D, W.K.2&8, W.2.7	2MDS1	Measure and estimate lengths in standard units	2-LS2-1	Planning and Carrying Out Investigations	LS2.A: Interdependent Relationships in Ecosystems	Cause and Effect
Would You Heat With Wood?		3MD2	Measure and estimate liquid volumes and masses of objects using standard units of grams, kilograms, and liters	K-ESS2-2, 4ESS3-1	Engaging in Argument from Evidence, Obtaining, Evaluating, and Communicating Information	ESS3.C: Human Impacts on Earth Systems, ESS3.A: Natural Resources	Systems and System Models, Interdependence of Science, Engineering, and Technology, Influence of Science, Engineering and Technology on Society and the Natural World
Advertising Biodiesel	RL.6- 12.1&4, RI.6-12.1&4&8, W.6- 12.1&2&4&8, SL.6-12.2&3			MS-ESS3-3, MS-ESS3-4, MS-ESS3-5	Constructing Explanations and Designing Solutions, Engaging in Argument from Evidence	ESS3.A: Natural Resources, ESS.C: Human Impacts on Earth Systems, ESS3.D: Global Climate Change	Cause and Effect, Engineering and Technology on Society and the Natural World
Community Design - It's a Gas	SL.6-8.4			MS-ESS3-3	Constructing Explanations and Designing Solutions	ESS3.A: Natural Resources, ESS.C: Human Impacts on Earth Systems	Cause and Effect, Engineering and Technology on Society and the Natural World
Don't Waste Waste	RST.6-8.7	MP1, MP5, MP6, MP7	2.MD, 3.MD2, 3.NBT2, 3.OA7, 6.RP3c	5-LS2-1, MS-LS1-6, MS-LS2-3	Constructing Explanations and Designing Solutions, Developing and using models	LS1.C: Organization for Matter and Energy Flow in Organisms, LS2.B: Cycle of Matter and Energy Transfer in Ecosystems	Energy and Matter
Grasses for the Masses		MP5, MP6, 6.SP.5a&b		MS-LS1-5, MS-LS1-6, MS-LS1-7	Planning and Carrying Out Investigations	ESS3.A: Natural Resources, ESS.C: LS1.B: Growth and Development of Organisms, LS1.C: Organization for Matter and Energy Flow in Organisms	Energy and Matter
Roadside Renewables				MS-ESS3-3	Constructing Explanations and Designing Solutions	ESS3.C: Human Impacts on Earth Systems	Influence of Science, Engineering, and Technology on Society and the Natural World
Biofuel Beliefs	RL.9-12.1, RI.9- 12.1, W.9-12.1-2&4&7-8			HS-ESS3-1, HS-ESS3-4	Engaging in Argument from Evidence	ESS3.A: Natural Resources, ESS3.C: Human Impacts on Earth Systems, ETS1.B: Developing Possible Solutions	Influence of Science, Engineering, and Technology on Society and the Natural World, Science is a Human Endeavor
Biomass Gazette	RL.9-12.1, RI.9- 12.1, W.9-12.2&4-8			HS-ESS3-4		ESS3.A: Natural Resources, ESS3.C: Human Impacts on Earth Systems, ETS1.B: Developing Possible Solutions	Influence of Engineering, Technology, and Science on Society and the Natural World
Corn in Your Car	RI.9-12.1, RST.9-12.3&7, SL.9-10.1, W.9-12.2&7-8, WHST.9-12.10	MP1, MP6	N-Q.1	MS-PS1-2, MS-PS1-3, MS-PS1-4, MS-PS1-5, MS-ETS1-1, MS-ETS1-2, MS-ETS1-3	Planning and Carrying Out Investigations, Analyzing and Interpreting Data, Constructing Explanations and Designing Solutions	PS1B: Chemical Reactions, PS2B: Types of Interactions, PS3.A: Definitions of Energy	Cause and Effect