Guided Discussion on the Driving Question:

How will the use of biofuels impact world hunger?

After conducting an activity on World Hunger and Wealth Inequity and then viewing a video on the development of biofuels, the class is asked to consider the driving question above. The initial discussion should be treated as a brainstorming activity with all responses being encouraged and noted (possibly using lino board). As input from students starts to taper off the teacher should ask for a list of factors that will need to be researched to answer this question. It is important that students are thinking critically and considering all possible factors.

Below are some key points that should hopefully come from the discussion.

**Different sources of biofuel:**

1. Ethanol is produced primarily from food sources.
2. Bio Diesel is produced primarily from food sources.
3. Fuels produced from cellulose come mainly from non-food sources.

**Land Diversion.**

1. Is land that would normally be used for food production being used for biofuels?
2. What impact does this have on the driving question?

**Current versus Future Technologies.**

1. Current technologies rely primarily on food crops.
2. Future technologies hope to use biomass instead of food crops.

**Below are some possible student responses:**

Do biofuels have to be grown on land used for food?

Do we even need biofuels? Why can’t we use fossil fuels?

We need to switch over to green energy eventually. Sooner would be better than later.

How do we actually get bio fuels?

How much more efficient are fossil fuels than biofuels?

How much land is available to grow crops? Will we run out? We need to be more efficient at farming.

What different crops are used for biofuels and which ones are most effective?

Which crop takes up the least amount of land, but produces the most fuel?

Grow biofuel crops in places where food crops can’t be grown or aren’t being used to grow food crops.

How much land is needed to supply the amount of energy that we need?

**Upon completion of the activity students will chose a topic within the theme of the driving question to investigate further. Students will be grouped by the teacher randomly drawing popsicle sticks with their names. The groups will then pick a topic from the list generated to investigate and research. Students are expected to modify and possibly change their topics and views as they research. Ideally groups should be 3 to 5 students each.**