

"Peak Oil Game"



Form groups of 4-5
people and find a
table!

Activity Focus:

What happens to production as the amount of oil in the ground decreases?

Game Goal:

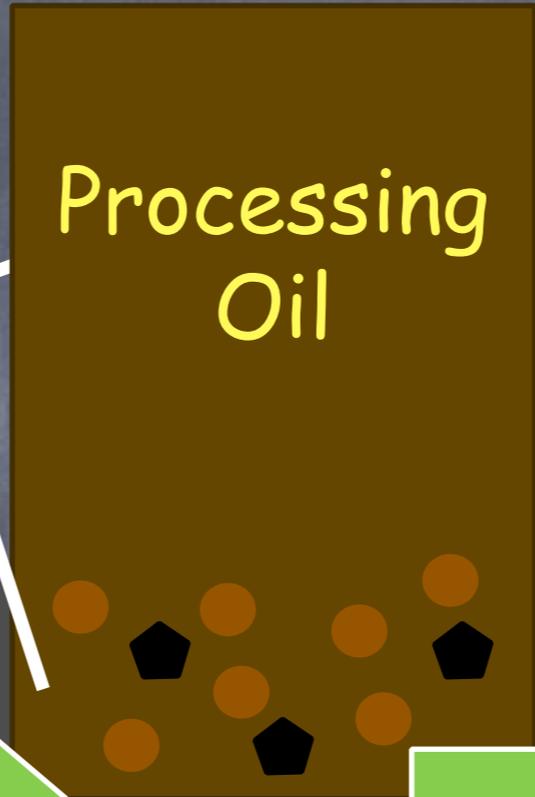
- Process the most clean oil by the end of the game.
 - Black beans = oil
 - Pinto (white) beans = dirt and contaminants
 - Marbles & fuzzy balls = immobile obstacles

How to mine the oil?

- The jars must remain on the table and upright at all times. They may not move from their spots.
- Marbles and fuzzy balls must remain in the jars.
- Oil and dirt can only be touched by the tools provided. No hands! No moving the bags!
- Oil and dirt can be taken out and dumped to the processing oil bag (P). Then only oil can be separated and put in refined oil bag (R).
- Oil must touch the bottom of the processing bag before going to the refined oil bag.

driller

processor



driller

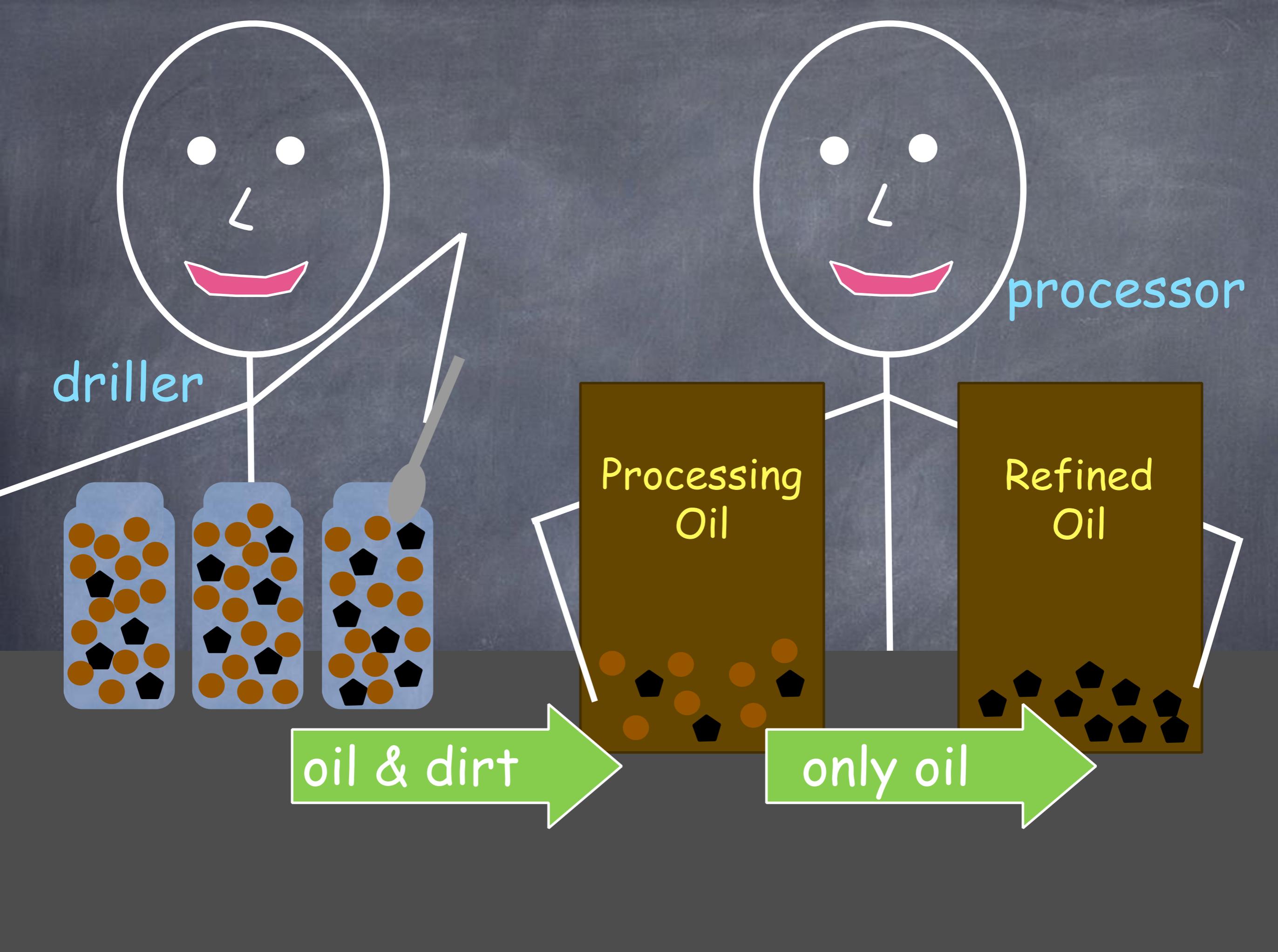
processor

Processing Oil

Refined Oil

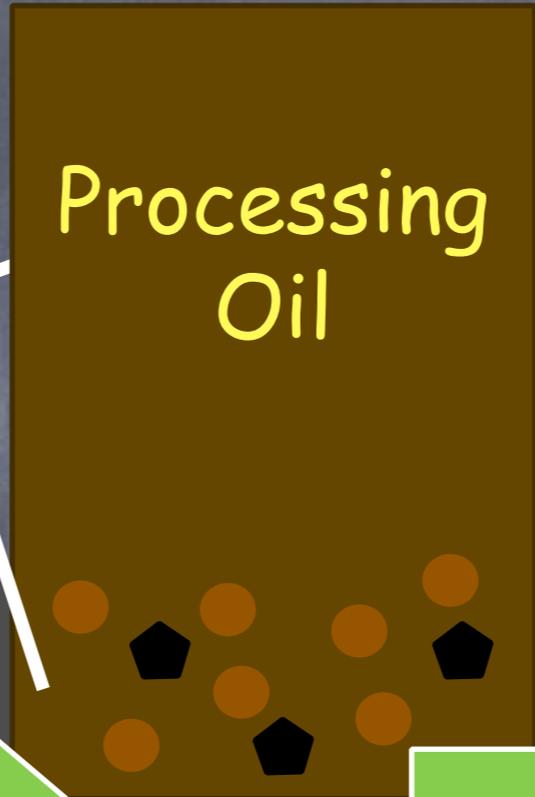
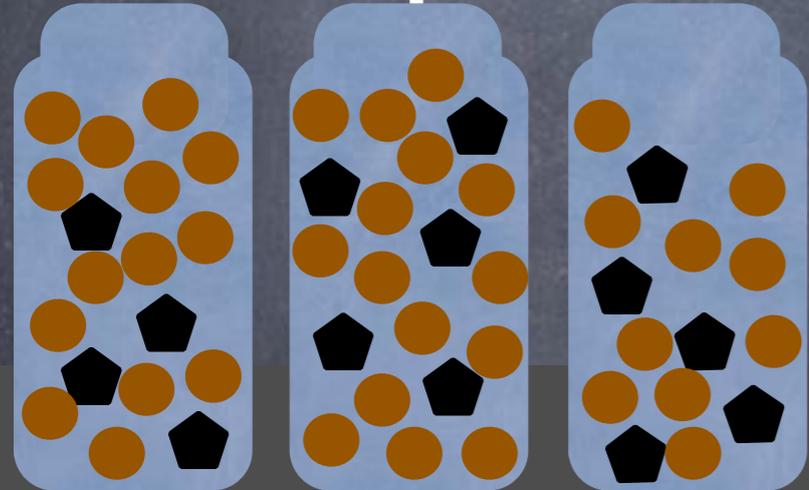
oil & dirt

only oil



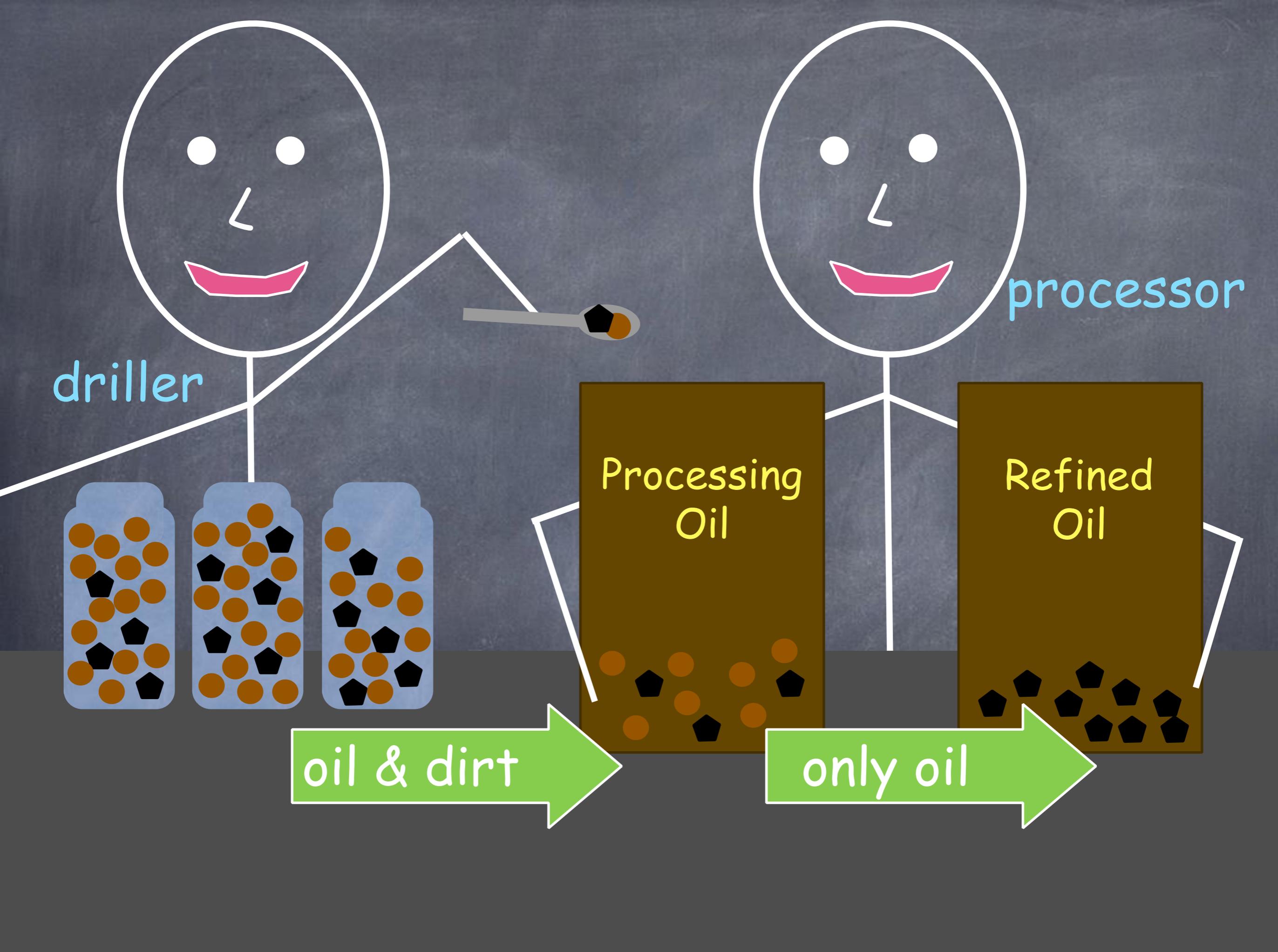
driller

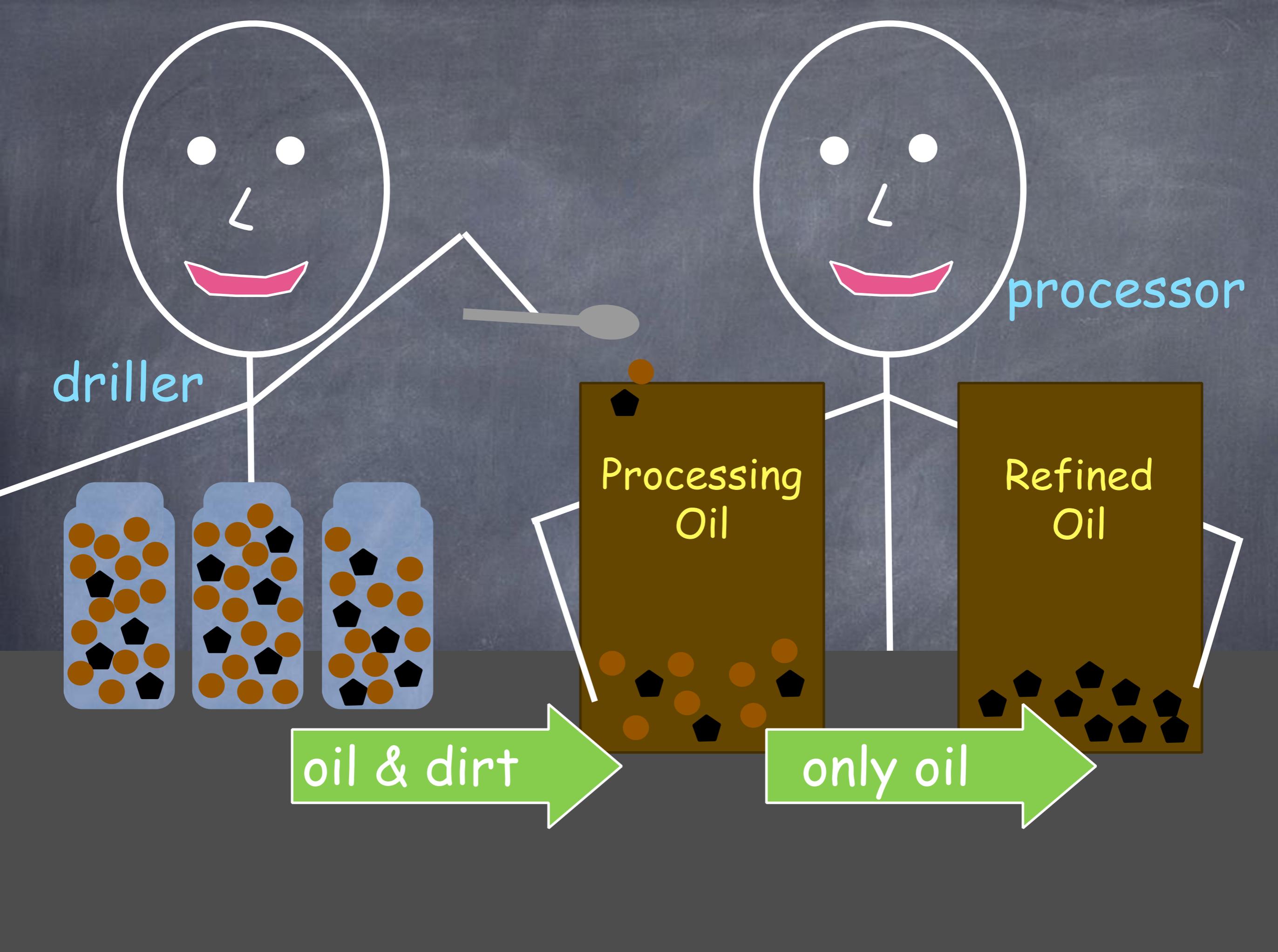
processor

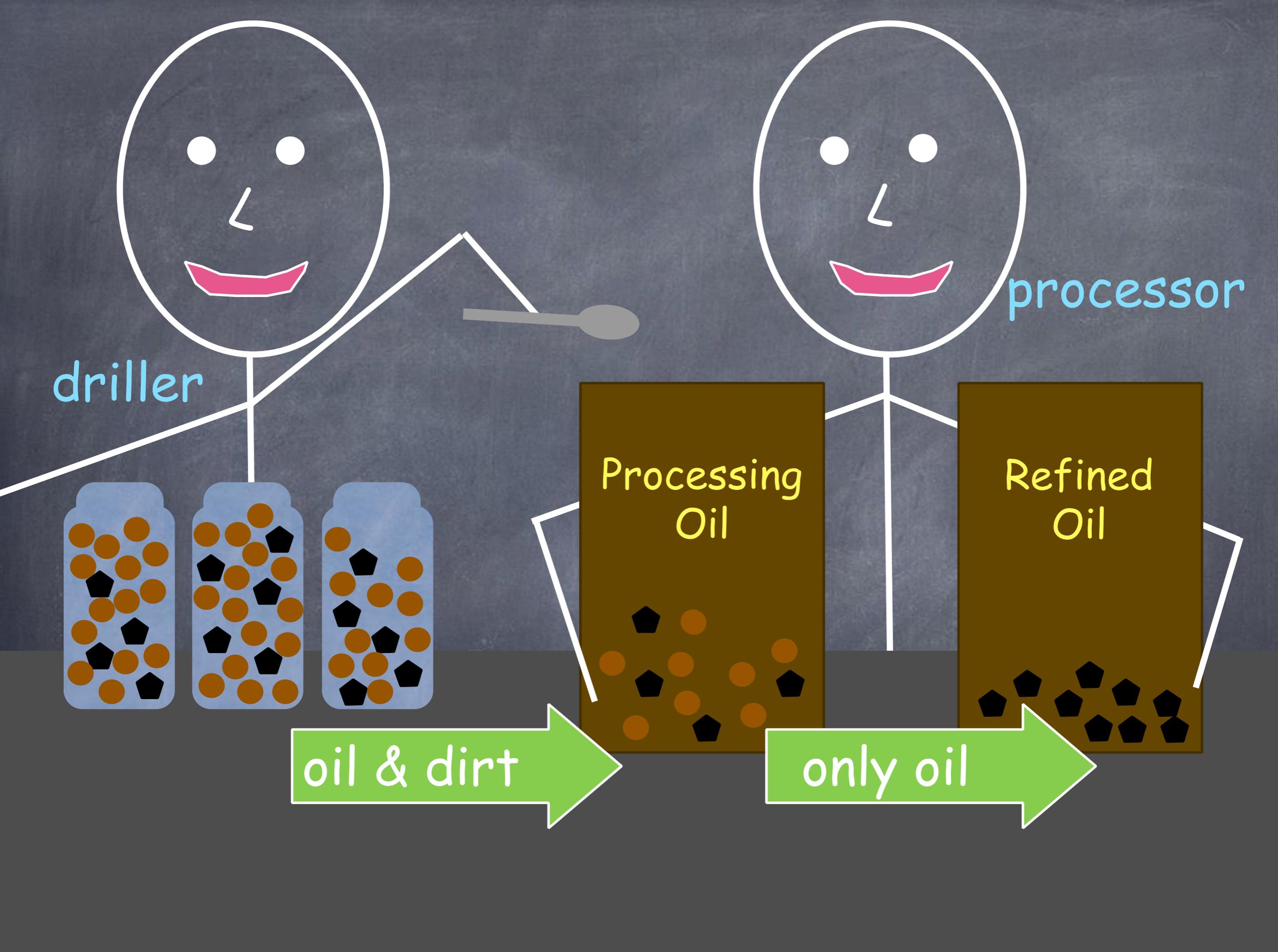


oil & dirt

only oil







driller

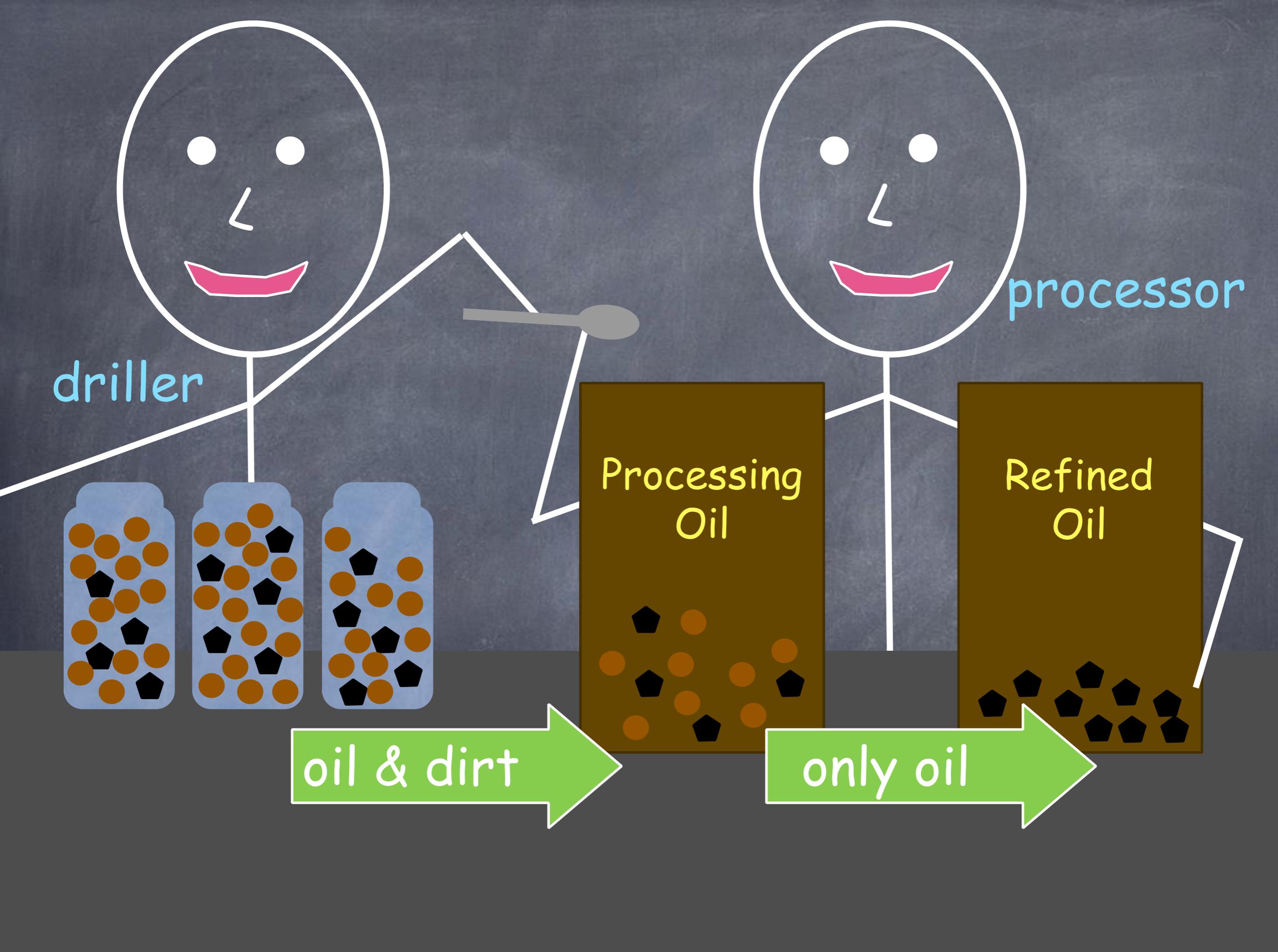
processor

Processing Oil

Refined Oil

oil & dirt

only oil



driller

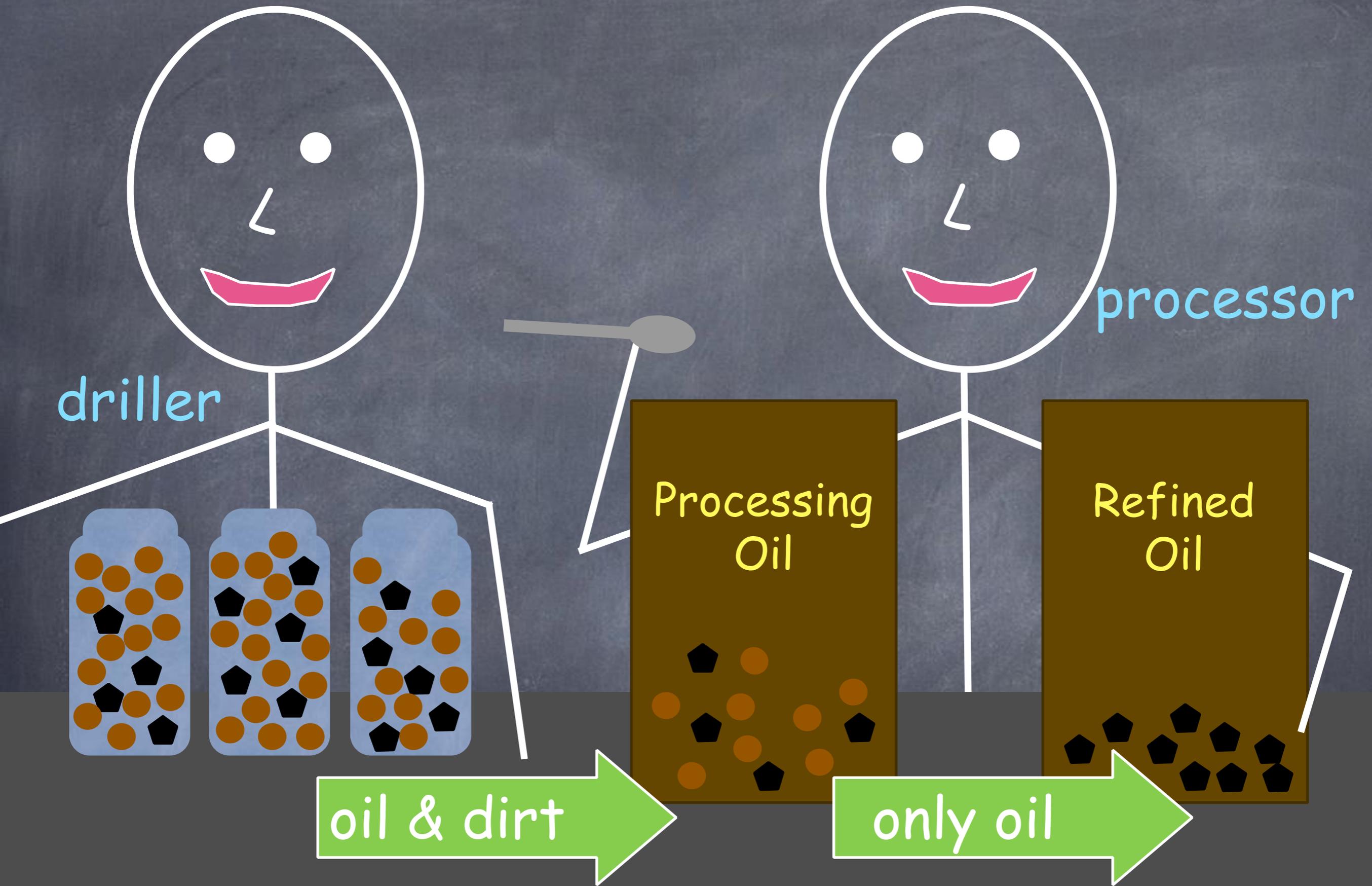
processor

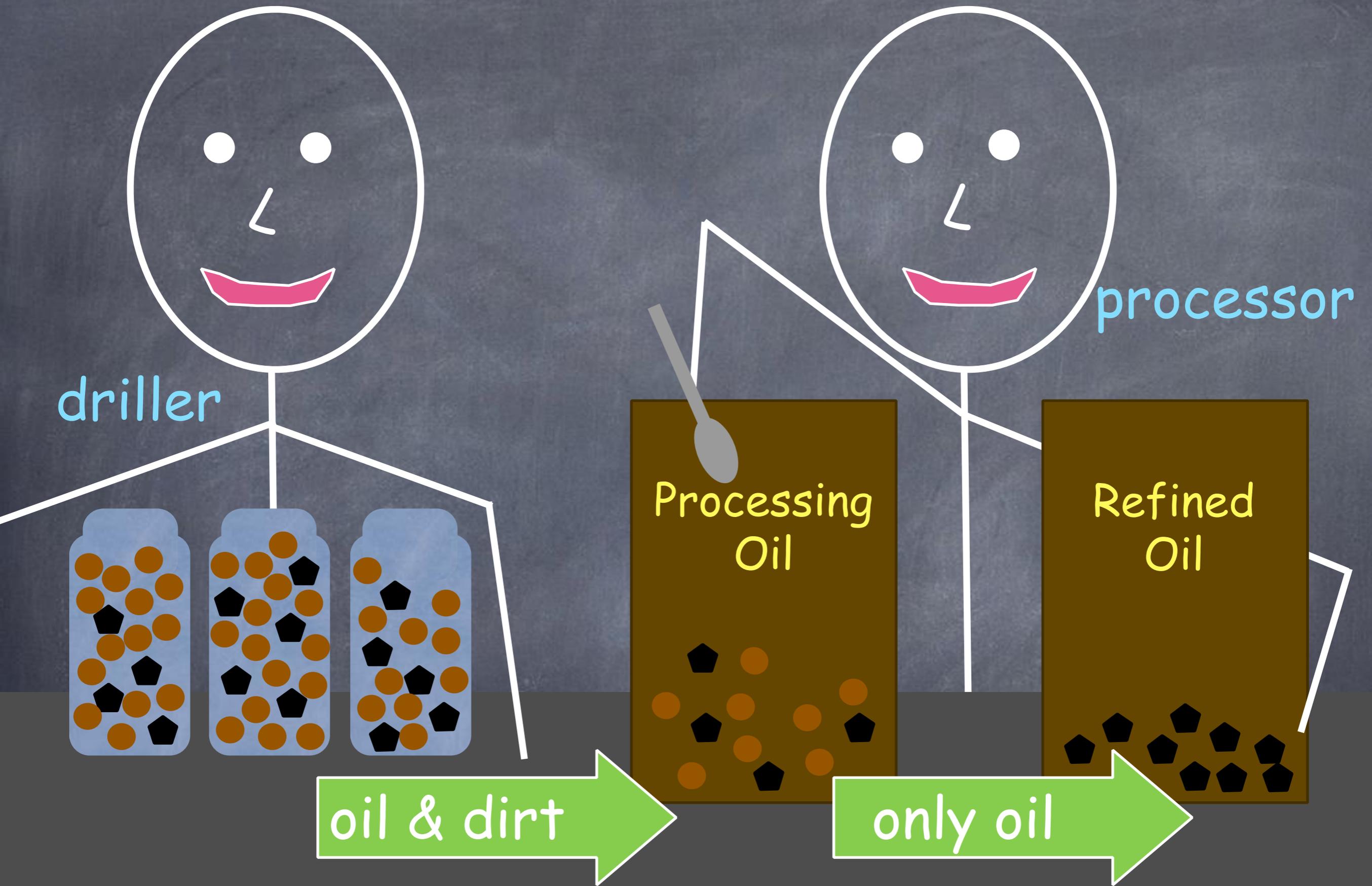
Processing Oil

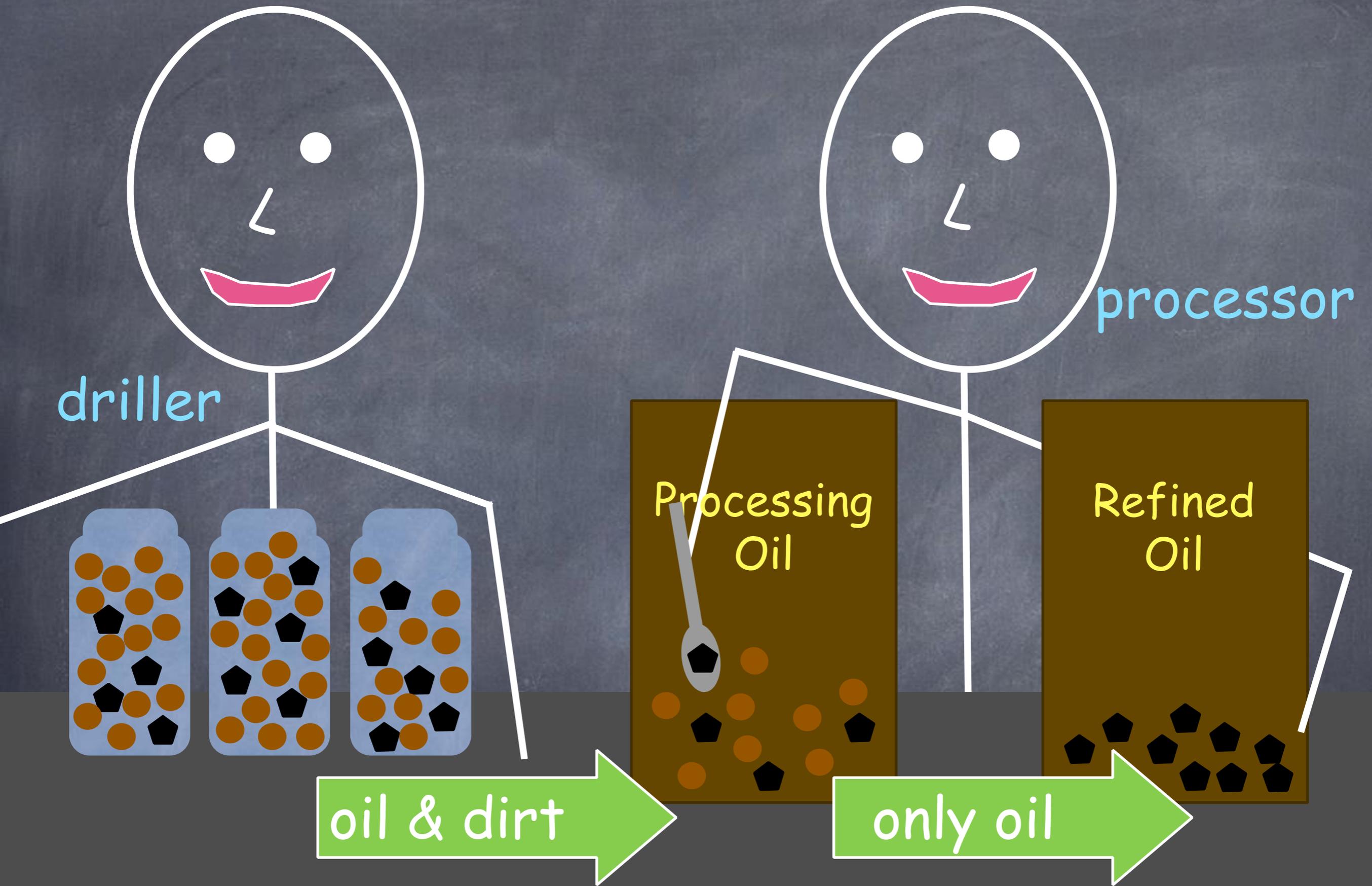
Refined Oil

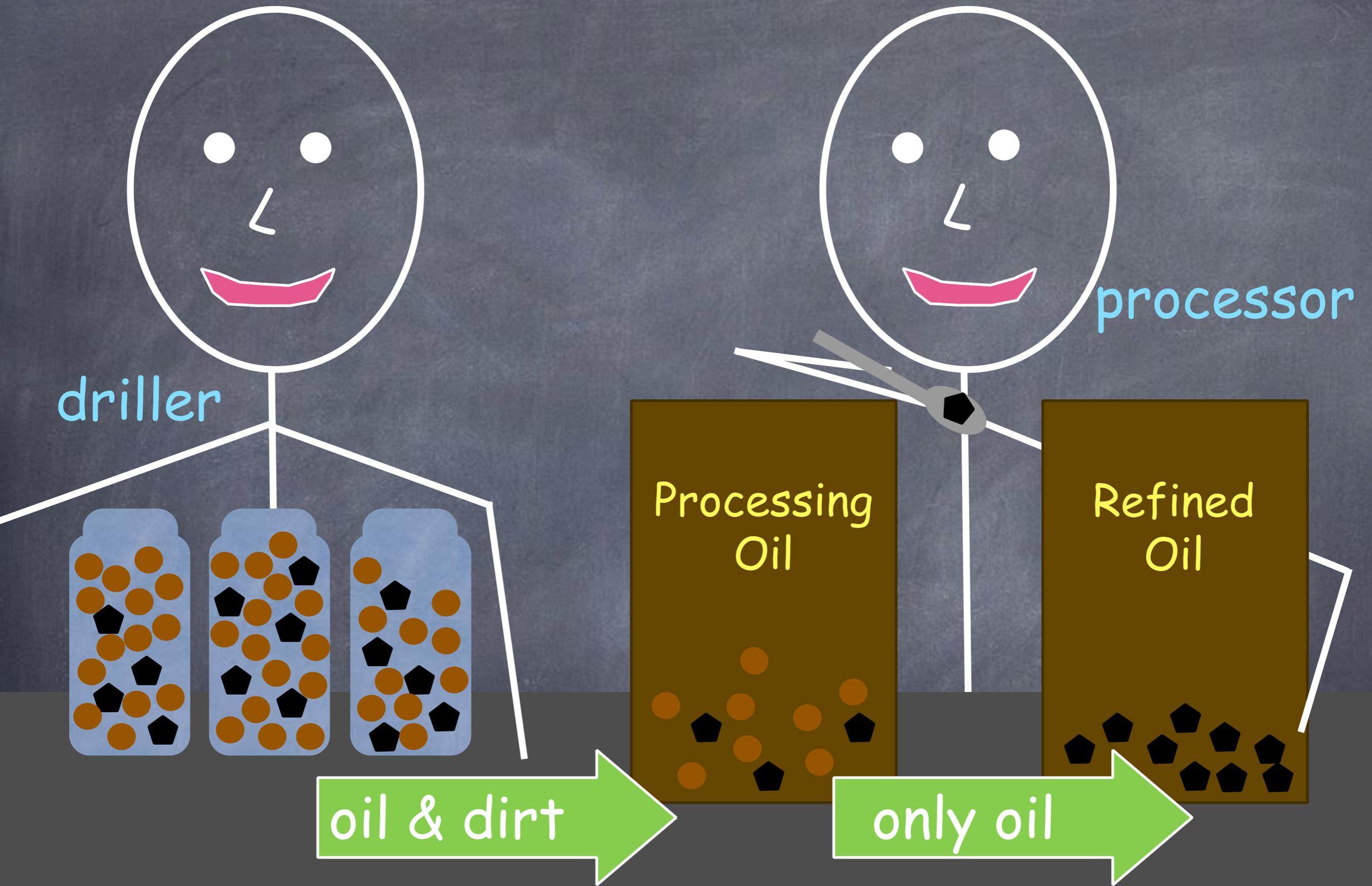
oil & dirt

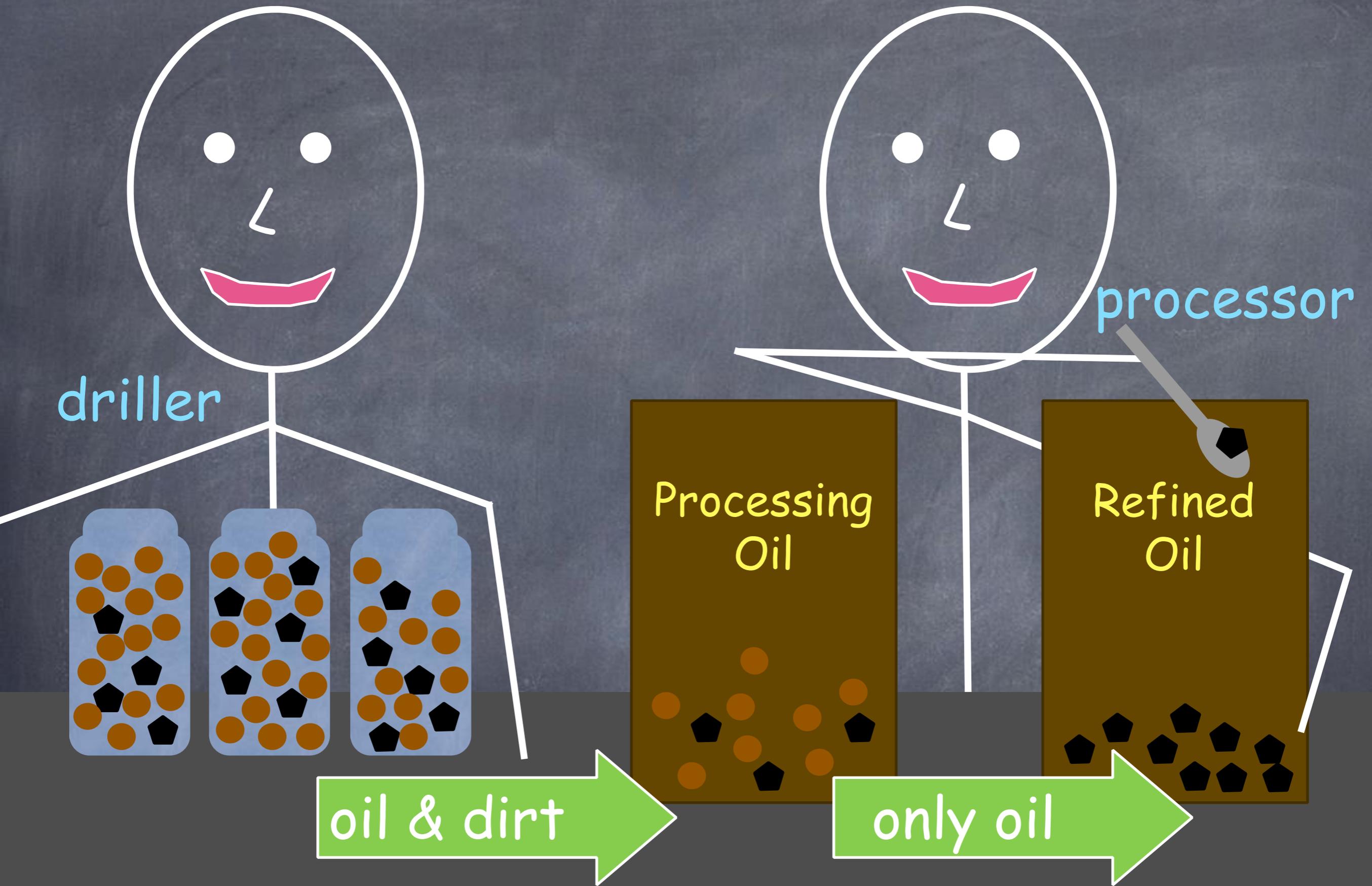
only oil

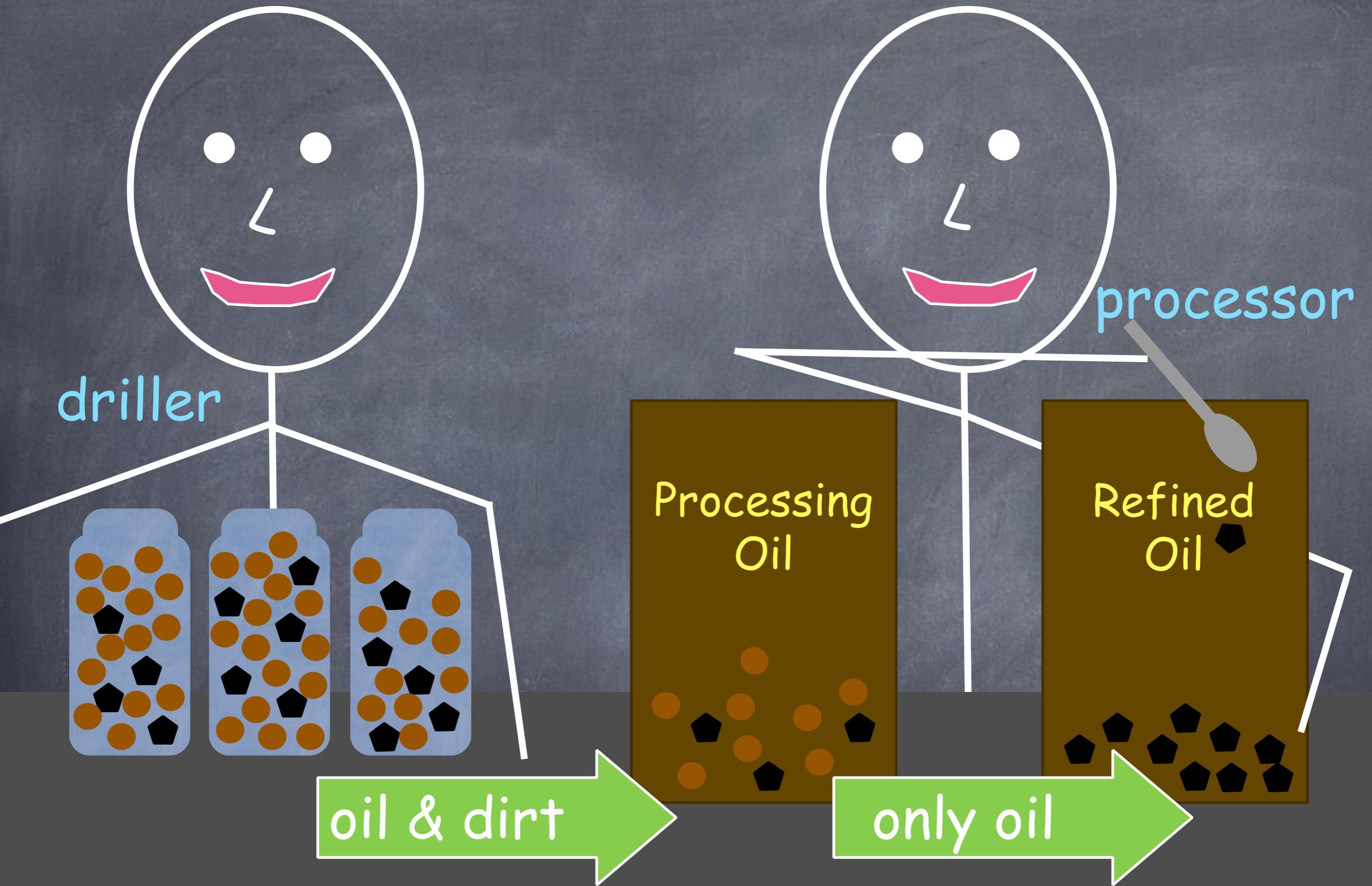


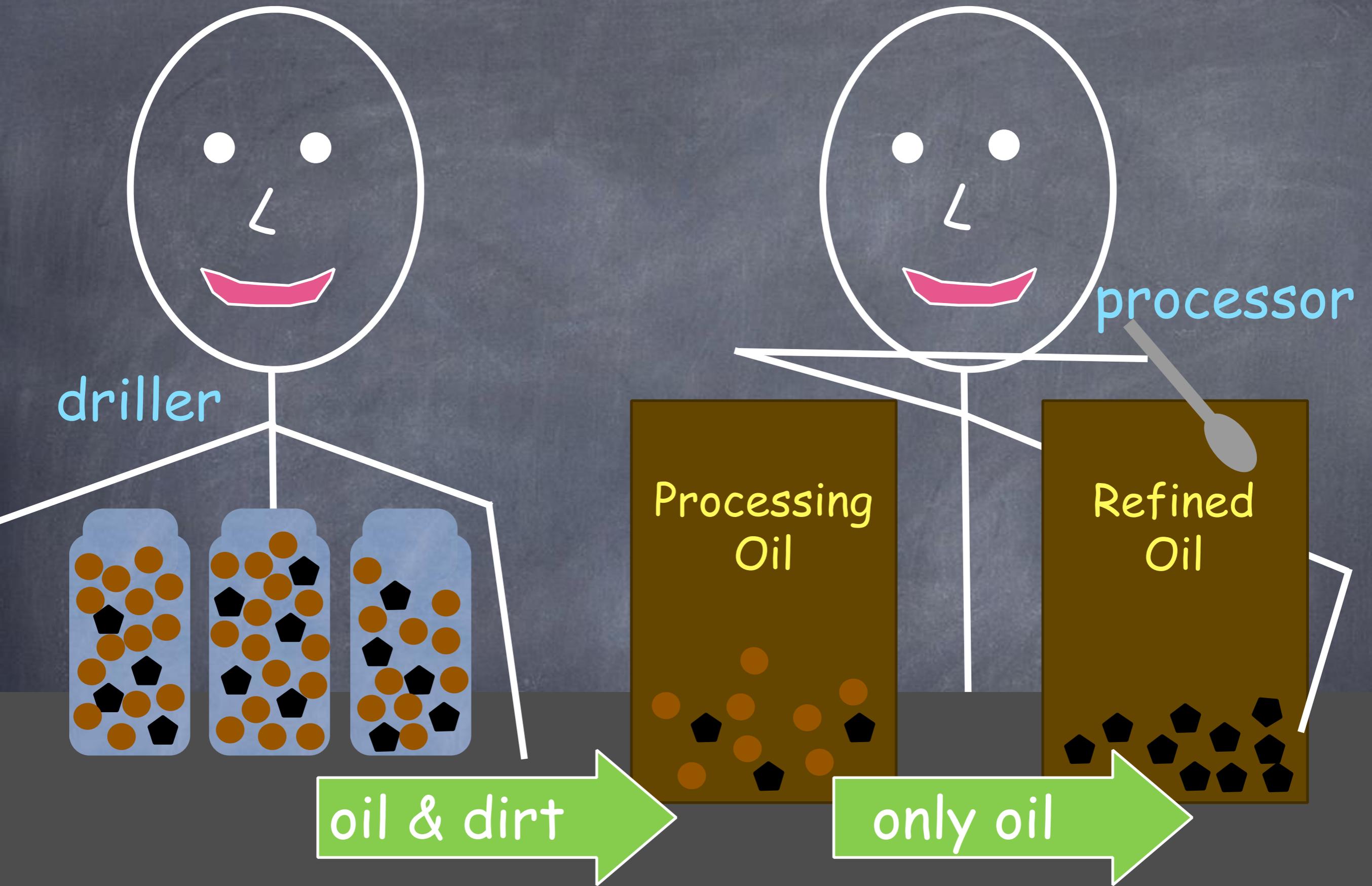














driller



processor

1 minute



1

year of work



oil & dirt



Processing Oil



Refined Oil



only oil

of work

driller

processor

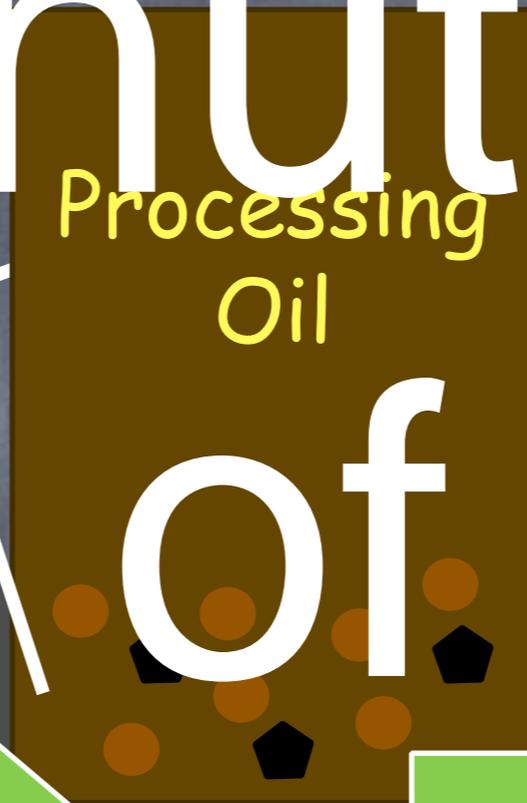
1 minute
1 year of work

Processing Oil

Refined Oil

oil & dirt

only oil



driller

processor

1 minute

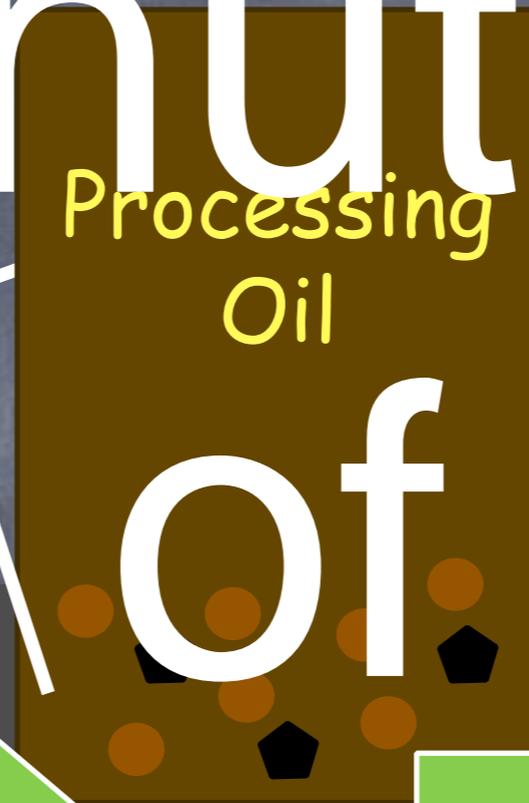
1 year of work

oil & dirt

only oil

Processing Oil

Refined Oil

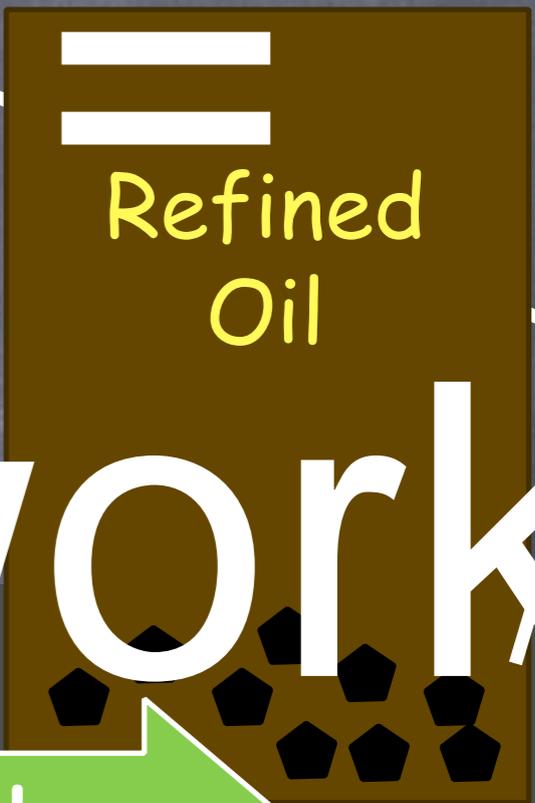
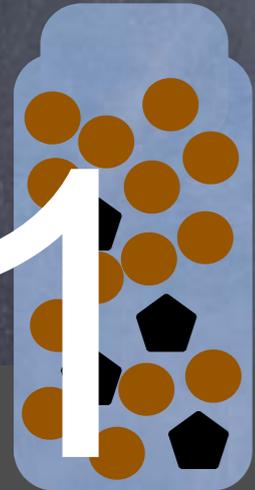


driller

processor

1 minute

1 year of work



driller

processor

1 minute

1 year of work

oil & dirt

only oil

Processing Oil

Refined Oil



driller

processor

1 minute

1 year of work

oil & dirt

only oil

Processing Oil

Refined Oil



driller

processor

1 year of work

1 minute

Processing Oil

Refined Oil

oil & dirt

only oil





driller

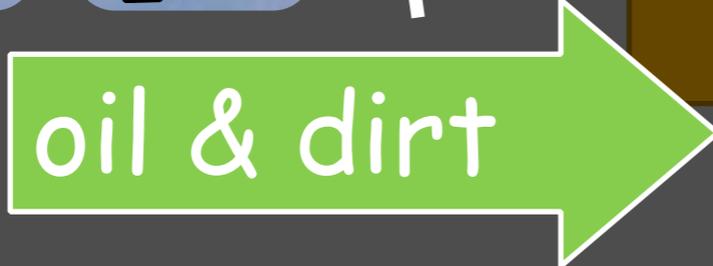


processor

1 minute



1 year of work



Processing Oil

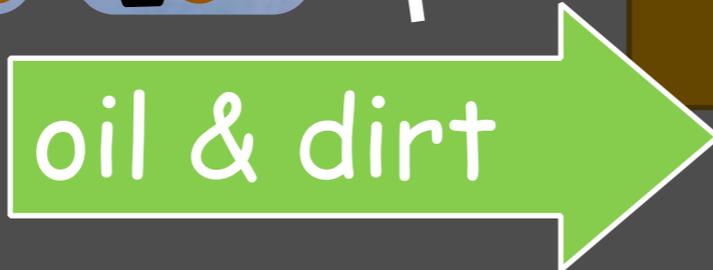
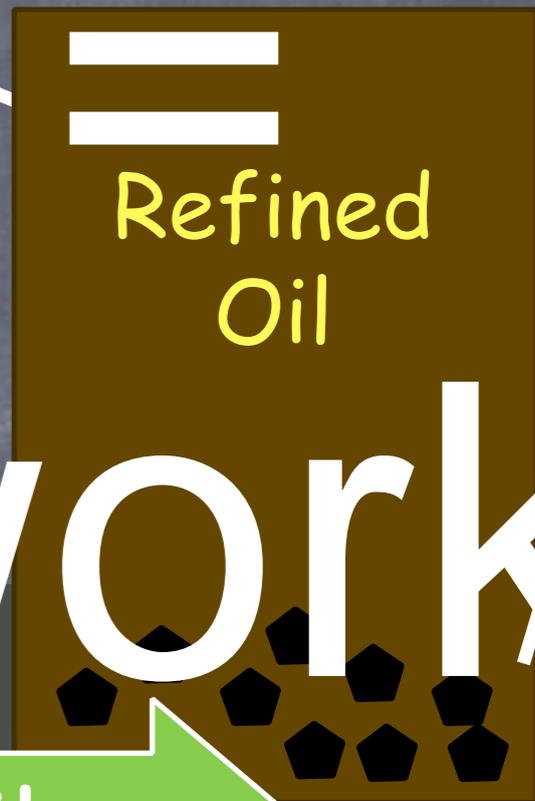
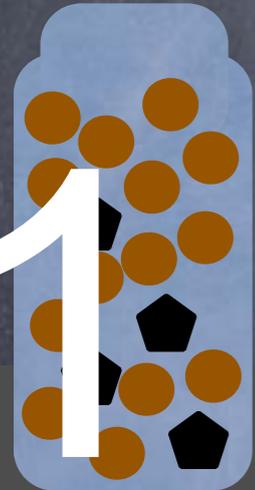
of work



Refined Oil



1 minute
1 year of work



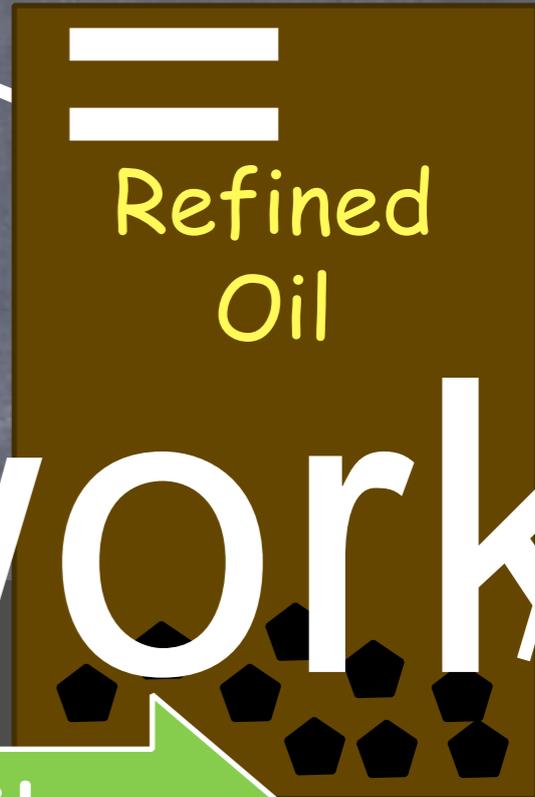
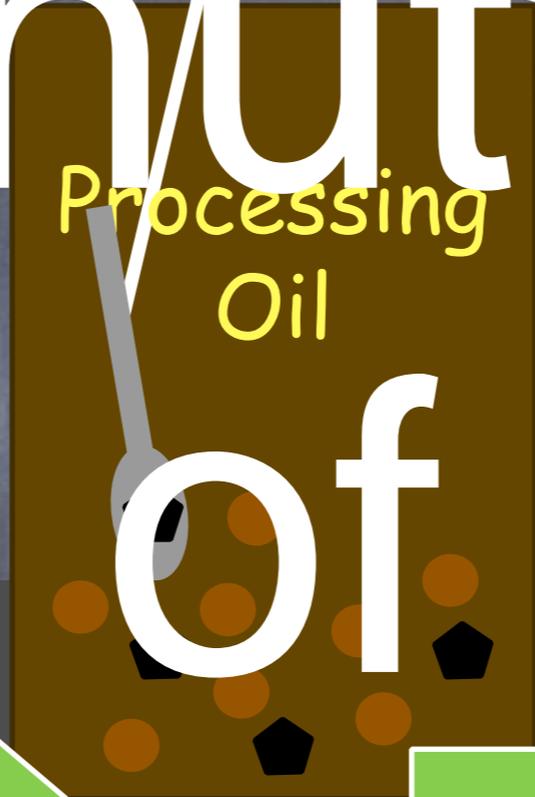
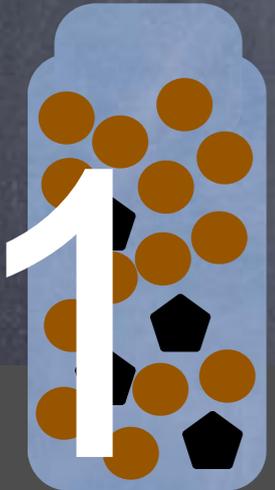


driller

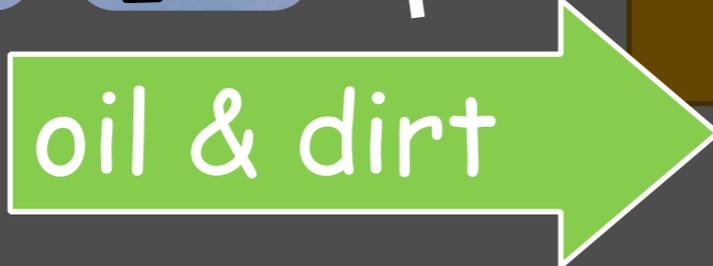


processor

1 minute



1 year of work



driller

processor

1 year of work

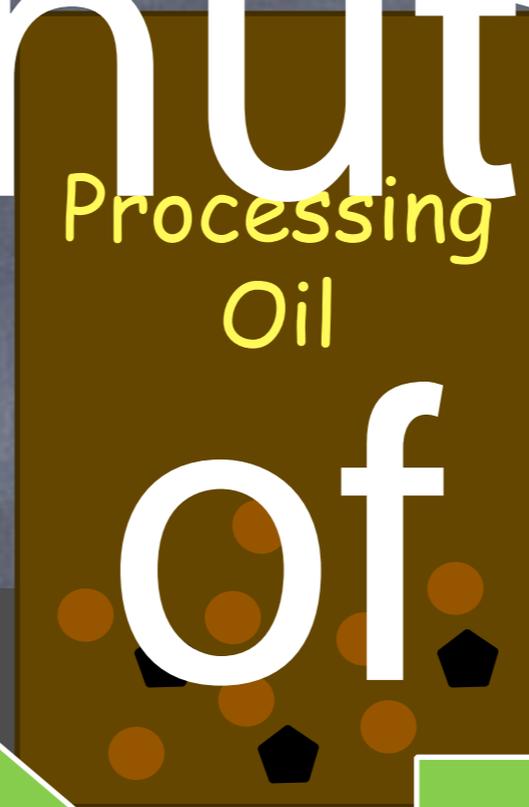
oil & dirt

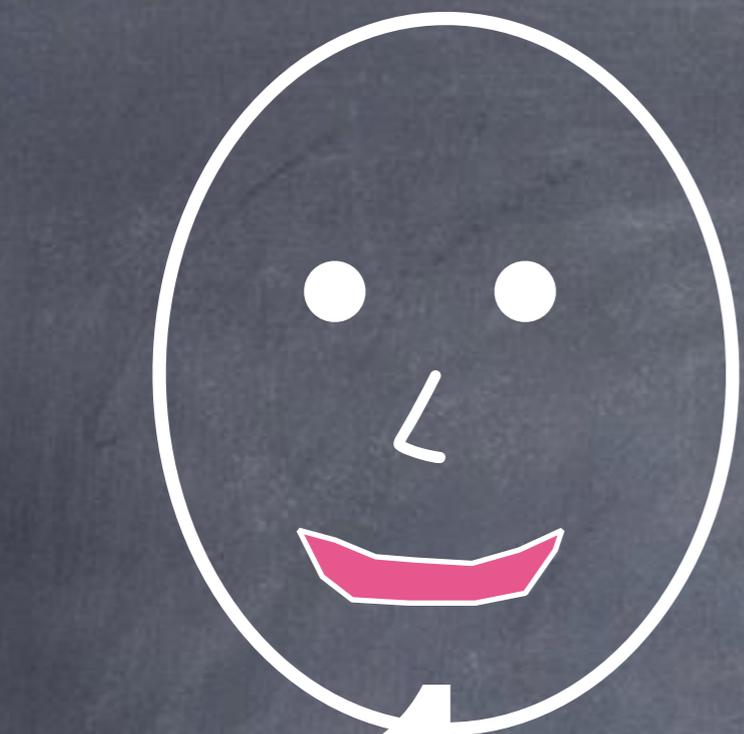
only oil

1 minute

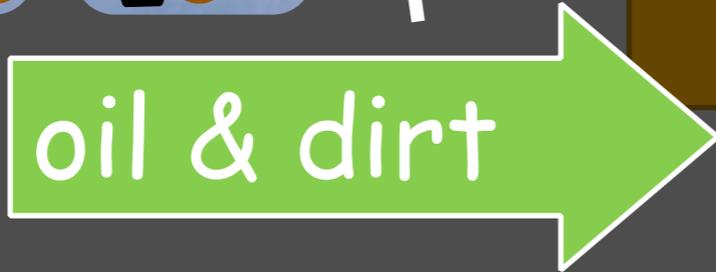
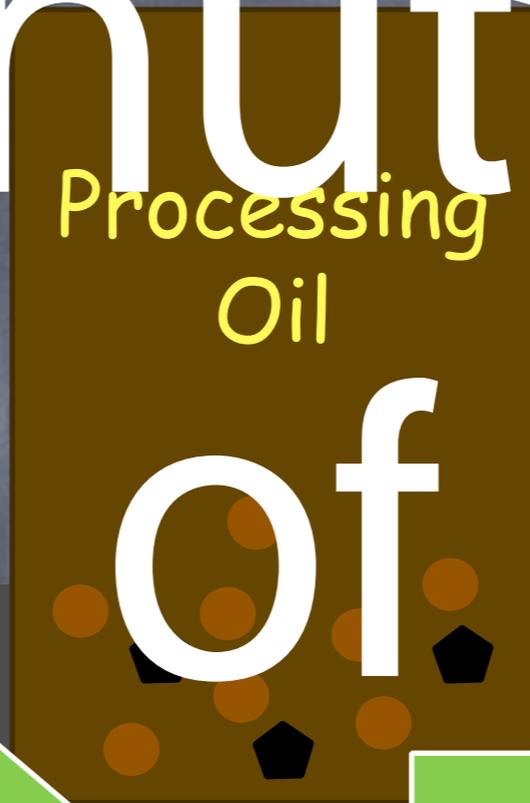
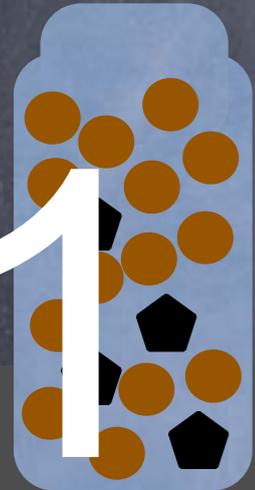
Processing Oil

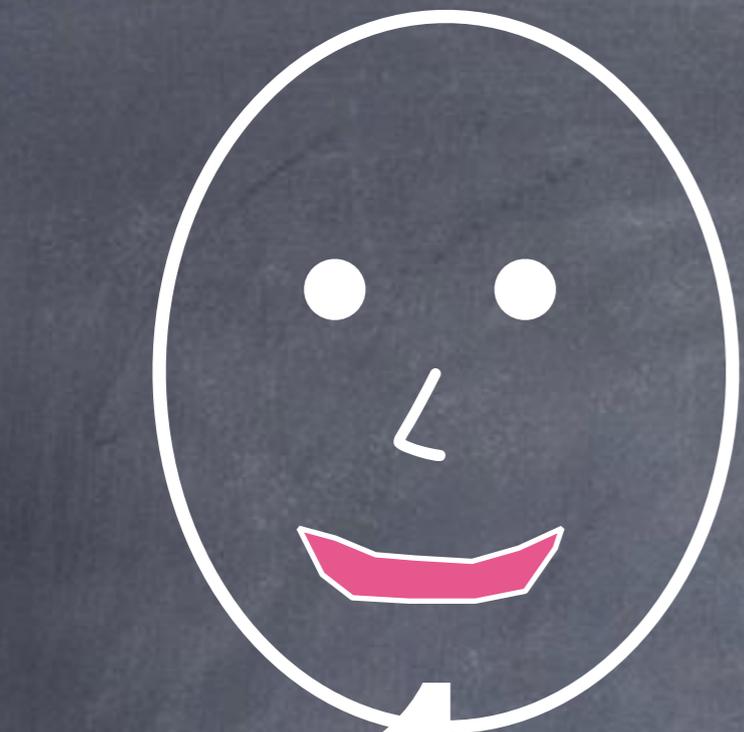
Refined Oil



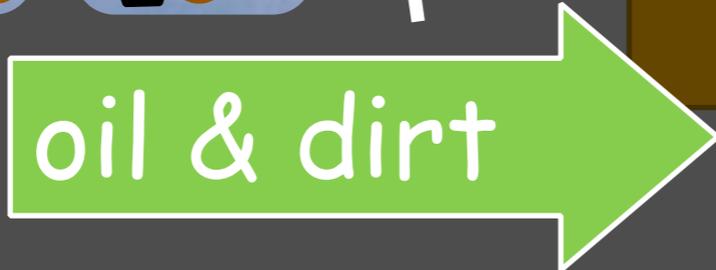
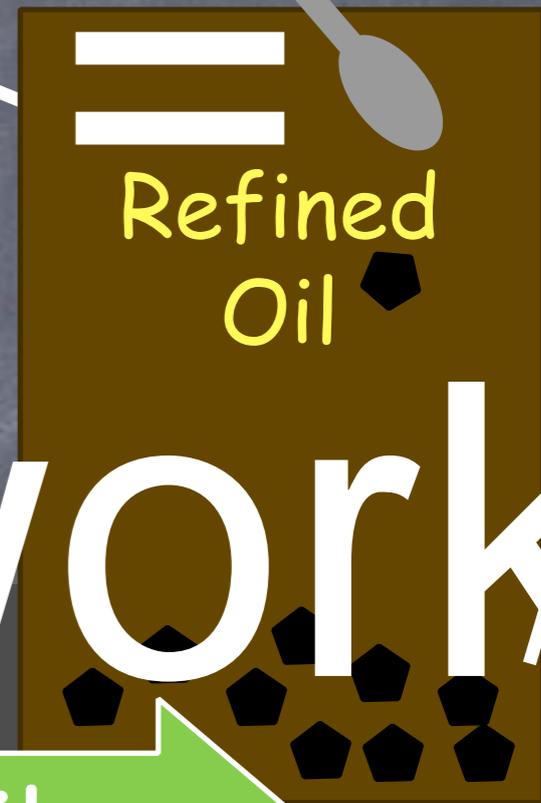
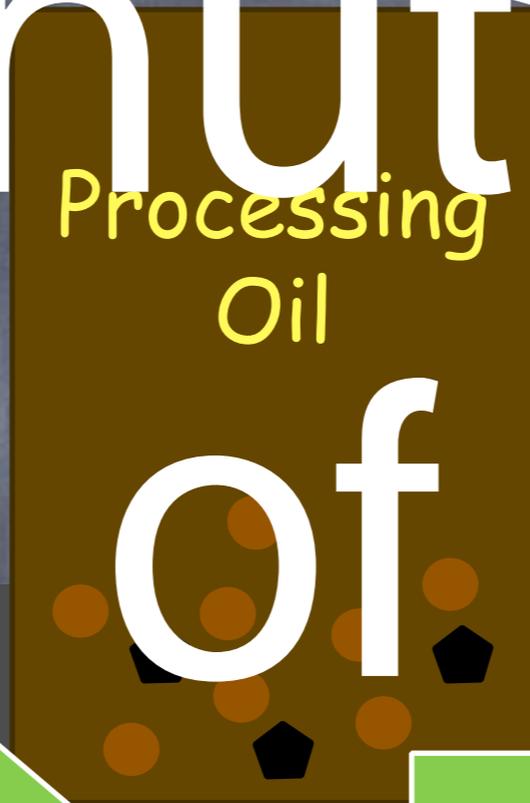


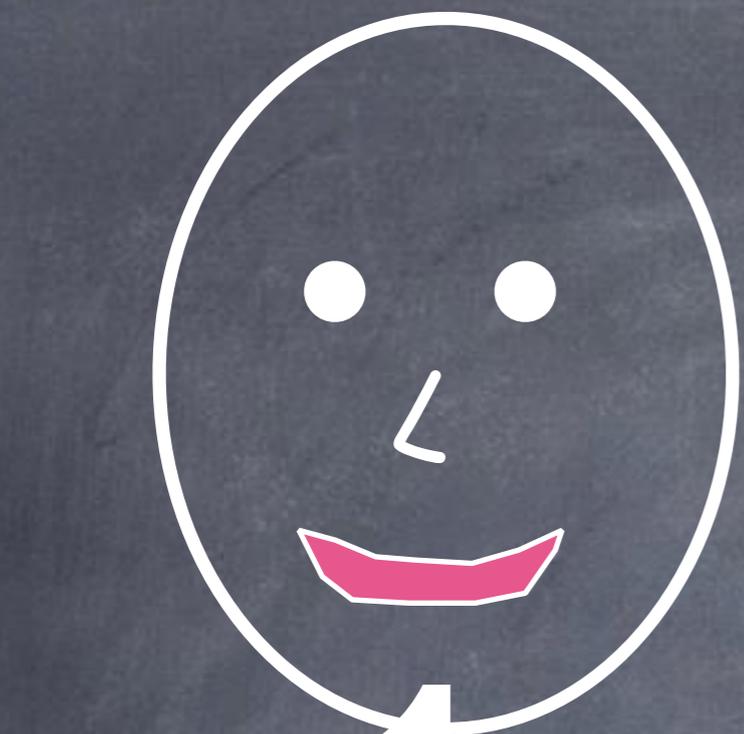
1 minute
1 year of work



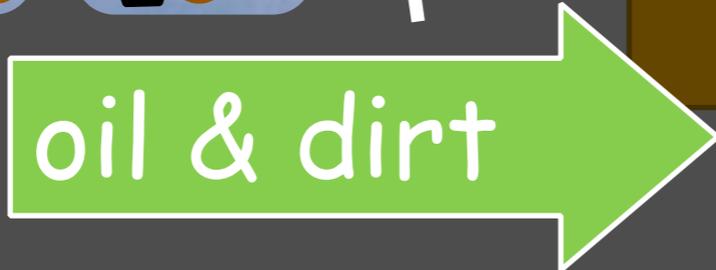
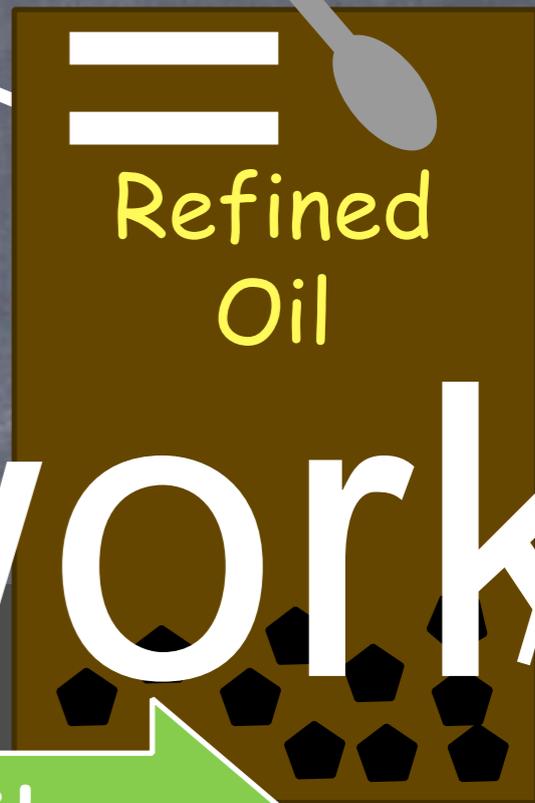
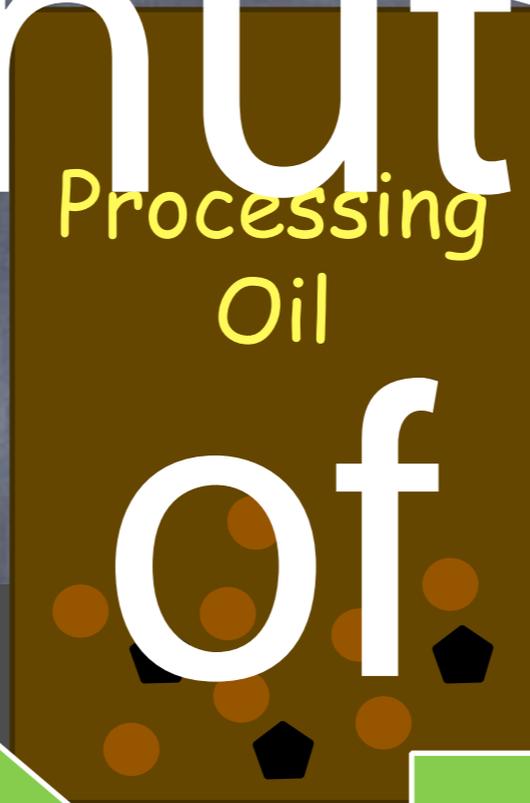
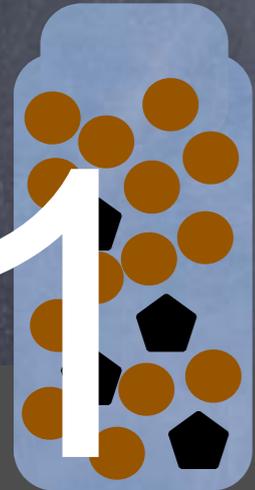


1 minute
1 year of work





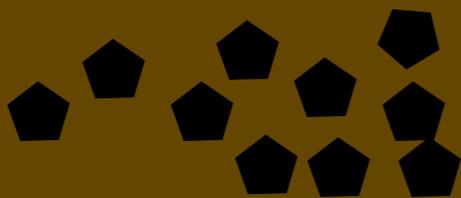
1 minute
1 year of work



STOP after 1 minute.

- After each year we will calculate the total production of processed oil by counting the beans.
- Once counted, the processed oil will be put in the accumulated oil bag for storage (S).

Refined
Oil (R)



Total
Accumulated
Oil
(S)

STOP after 1 minute.

- After each year we will calculate the total production of processed oil at the weighing stations.
- Once counted, the processed oil will be put in the accumulated oil bag for storage (S).



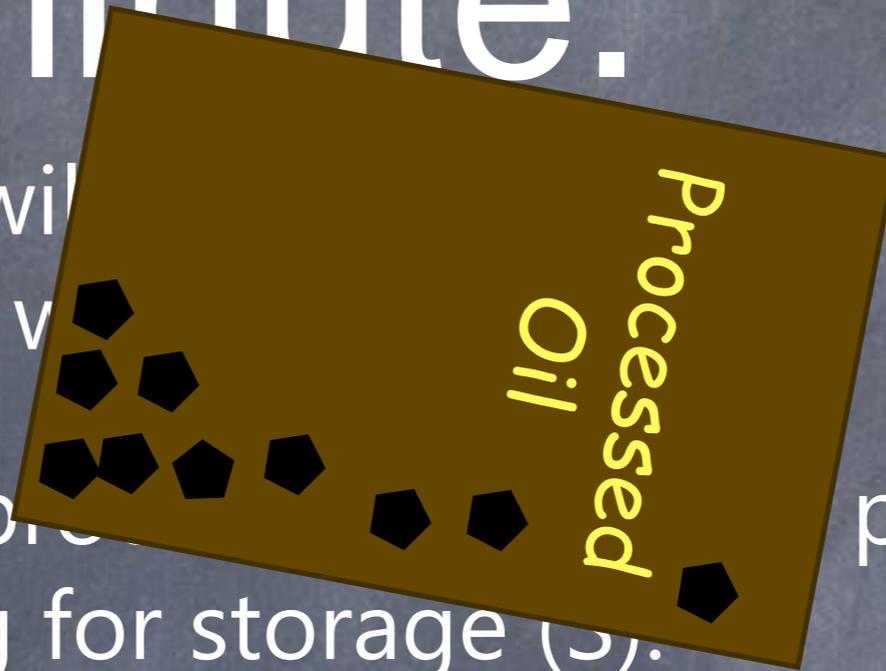
STOP after 1 minute.

- After each year we will calculate the total production of processed oil at the weighing stations.
- Once counted, the processed oil will be put in the accumulated oil balance (S).



STOP after 1 minute.

- After each year we will count the production of processed oil at the well.
- Once counted, the production will be put in the accumulated oil bag for storage (5).



STOP after 1 minute.

- After each year we will count the production of processed oil at the well.
- Once counted, the production will be put in the accumulated oil bag for storage (5).



STOP after 1 minute.

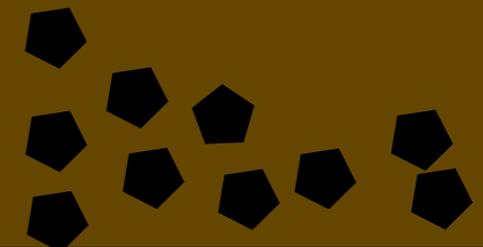
- After each year we will stop the production of processed oil at the well.
- Once counted, the processed oil will be put in the accumulated oil bag for storage (S).



STOP after 1 minute.

- After each year we will calculate the total production of processed oil at the weighing stations.
- Once counted, the processed oil will be put in the accumulated oil bag for storage (S).

Total
Accumulated
Oil



STOP after 1 minute.

- After each year we will calculate the total production of processed oil at the weighing stations.
- Once counted, the processed oil will be put in the accumulated oil bag for storage (S).

Record the weight on the bag --->
Record any removals of oil for
purchases, penalties, etc. The
final total will be weighed/added
at the close of the game.



Penalties

- Any item spilled outside the container = 2 black beans from the processed oil will be removed
- Processed oil with contaminants = 2 black beans removed for each brown bean
- Immobile obstacles outside the container = 5 black beans removed from processed oil

Get ready for the next year.

- Spills and penalties get put in the communal waste bin.
- Anything in the processing oil gets dumped in the communal waste bin.

Jobs

- Site manager
- Oil Extractor
- Oil Processer
- Accountant
- Inspector



Watches for spilled oil, gives teams support and keeps track of time

Jobs

- Site manager
- Oil Extractor
- Oil Processer
- Accountant
- Inspector

Removes beans
from jar and
places in
processing bag (P)



Jobs

- Site manager
- Oil Extractor
- Oil Processer
- Accountant
- Inspector



Moves oil from
processing bag (P)
to refined oil bag
(R)

Jobs

- Site manager
- Oil Extractor
- Oil Processer
- Accountant
- Inspector

Records amount of refined oil, subtracts any penalties and places in accumulated oil bag for storage (S)



Jobs

- Site manager
- Oil Extractor
- Oil Processer
- Accountant
- Inspector

Reports any oil spills
to the government
agency (teacher)



How to mine the oil?

- All jars must remain on the table and upright at all times. They may not move from their spots.
- Marbles and fuzzy balls must remain in the jars.
- Oil and dirt can only be touched by the tools provided. No hands! No moving the bags!
- Oil and dirt can be taken out and dumped to the processing oil bag (P). Then only oil can be separated and put in refined oil bag (R).
- Oil must touch the bottom of the processing bag before going to the refined oil bag.

Penalties

- Any item spilled outside the container = 2 black beans from the processed oil will be removed
- Processed oil with contaminates = 2 black beans removed for each brown bean
- Immobile obstacles outside the container = 5 black beans removed from processed oil

Reflection

1. What worked well? What didn't?
2. How is this process similar to actual oil extraction? Different?
3. How is this process similar to actual oil refining? Different?
4. What oil and gas jobs are available in NB?

Have fun!



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