

# Highway & Traffic Engineering

## HIGHWAY MATERIAL (AGGREGATE) - ASSESSMENT

by

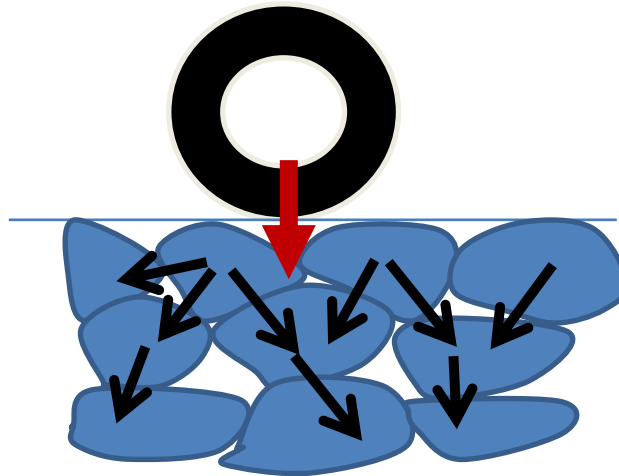
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# Activity 1

- Based on the figure below, state 4 characteristics of well graded mix and 1 disadvantage of well graded mix.

Wheel Loads



# Activity 2

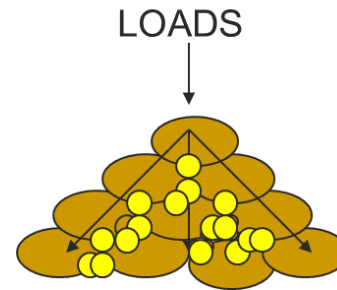
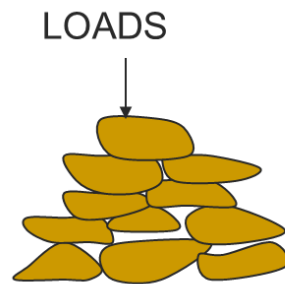
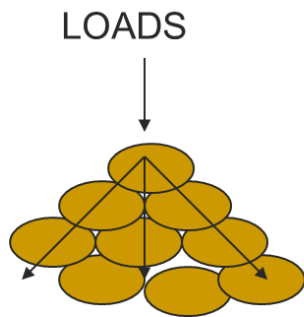
- An aggregate sample having dry mass of 1220.6 gm, mass in Saturated Surface Dry Condition of 1237.5gm and volume of aggregate (excluding volume of absorbed water) of 440.0cm<sup>3</sup> is intended to be used in construction of new road connecting Kuantan and Pekan. Calculate :-
  - The bulk specific gravity,
  - Apparent specific gravity and
  - Percentage of moisture absorptions of this aggregate sample.

# Activity 3

- With an aid of sketches, explain below terms:
  - Oven Dry
  - Saturated Surface Dry

# Activity 4

- Describe 3 differences between these three aggregate formations.



# Activity 5

Following are the results of gradation test on three sources of aggregates.

Combined these aggregates to give a gradation falling approximately in the center of the specification.

		Aggregate A	Aggregate B	Aggregate C	Specification
Passing	25mm	100%			100%
	19mm	92%			90-100%
	9.5mm	41%	100%	100%	50-75%
	4.75mm	19%	77%	96%	35-55%
	2.36mm	7%	60%	79%	30-60%
	600µm	4%	42%	40%	16-40%
	300µm	2%	36%	16%	8-25%
	75 µm	1%	28%	3%	3-6%

# Author Information

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