

The Train to Matjiesfontein

by

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Council for Geoscience

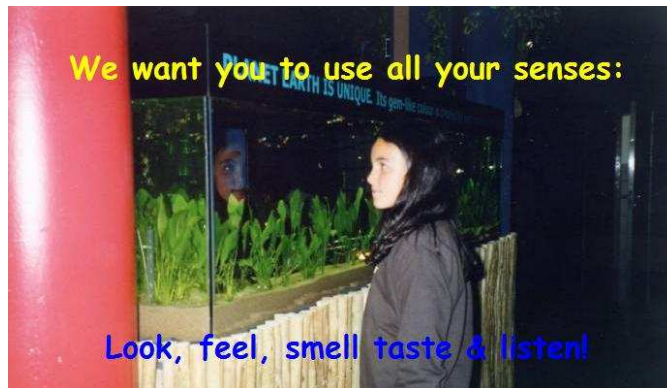
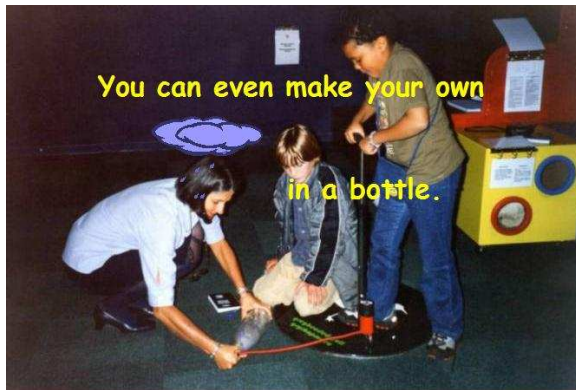
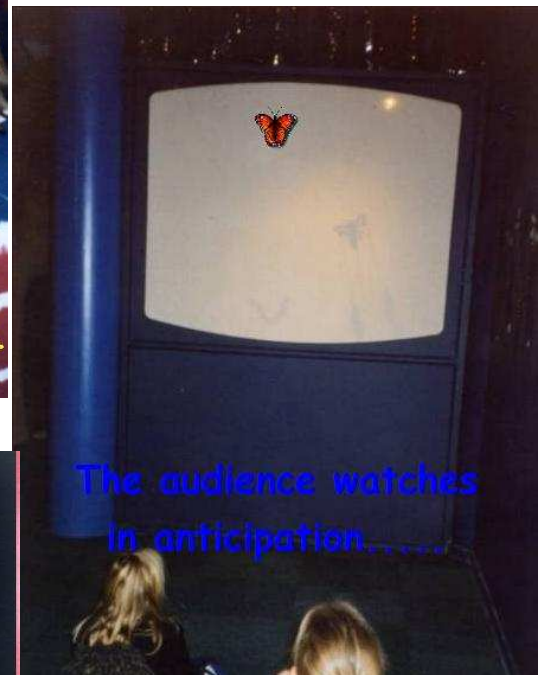
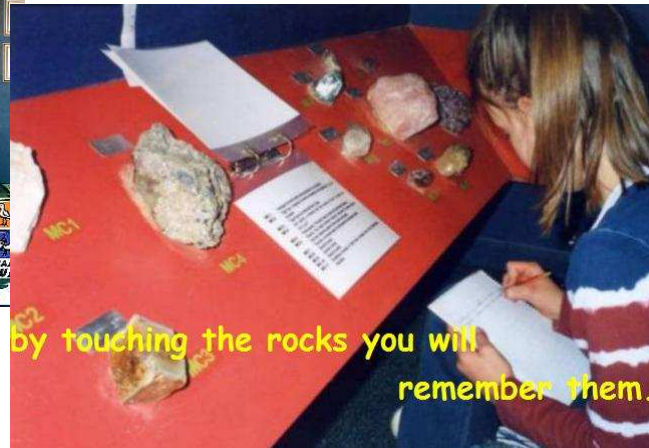
As part of the IIGSO whitepaper:

- **Social Responsibility Program**
- **Training Program**

Training can be achieved by:

Museum Exhibitions

Discovery Centre – Transvaal Museum



Museum Exhibitions



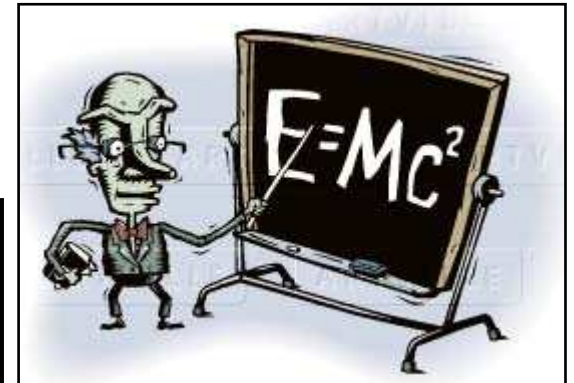
SAASTA Science Awareness Platform



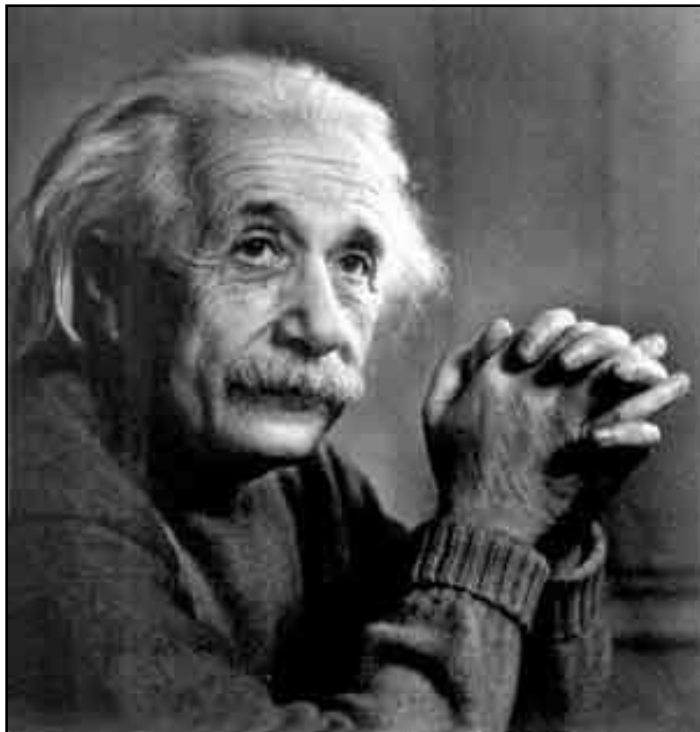
Also Utilise SAASTA Travelling Displays



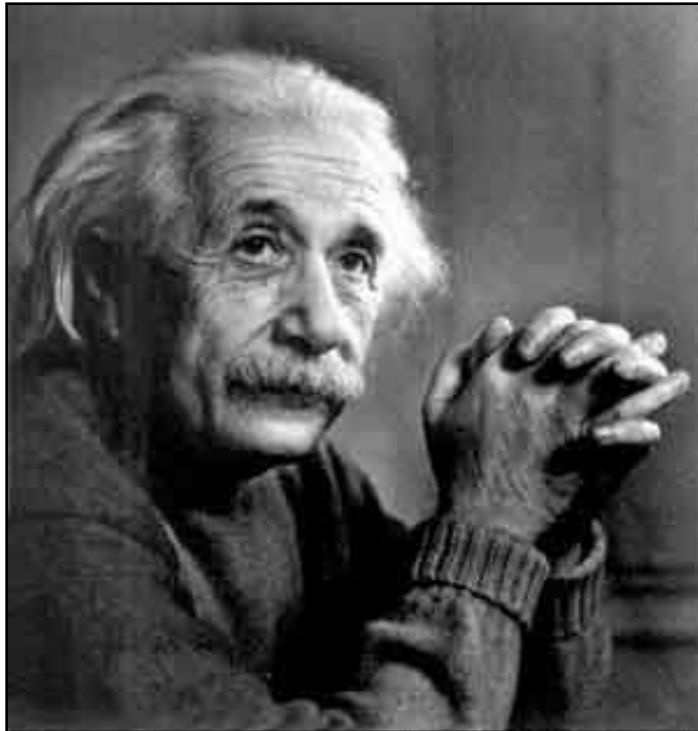
Scholar Math and Science lectures



Lectures by Experts



Training of Students under Supervision



Social Responsibility can be achieved by:

Social Responsibility

Envisaged Community Services:

- House Foundation Inspections
- Cemetery Placement
- Groundwater Divining
- Borehole Drilling
- Building Material location
- Solar Installations
- Internal Affairs Post box



This can be achieved by:

Proposed Geotrain Specialising in Geoscience and Geodesy



Based at Matjiesfontein

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Other types of service trains exist in South Africa

Specialising in Health Care



The Phelopepa Train

Services delivered by the Phelopepa Train



Basic health care:

- Eye testing
- Hypertension testing
- Diabetes testing
- Basic dentistry



Training program includes:

- Children Programs
- The 5-day Basic Health Education Program
- Medical Students do voluntary work on the train

Other types of service trains exist in South Africa

Specialising in Aids awareness



The Love Train



Proposed Geotrain Specialising in Geoscience and Geodesy



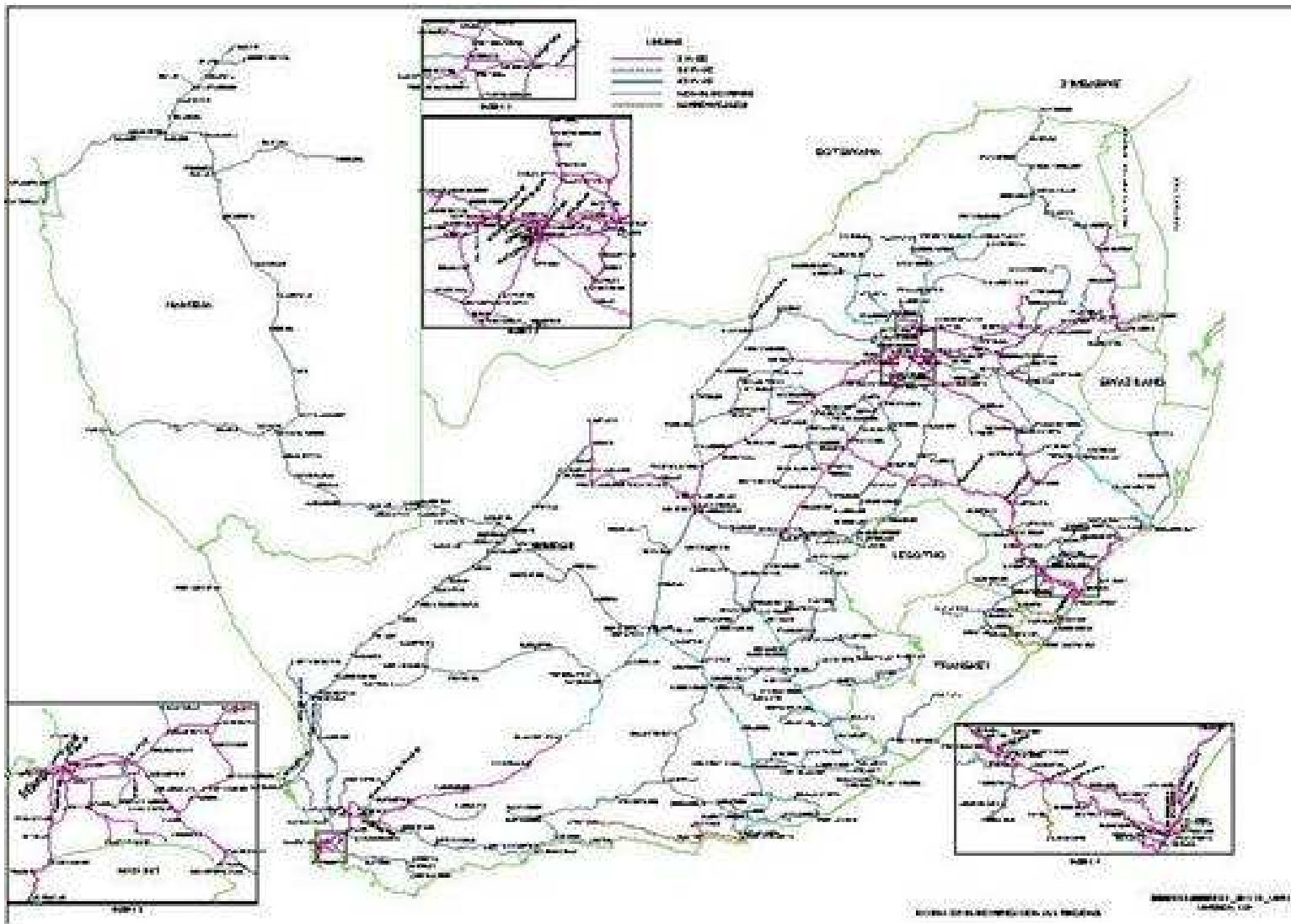
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Proposed Geotrain

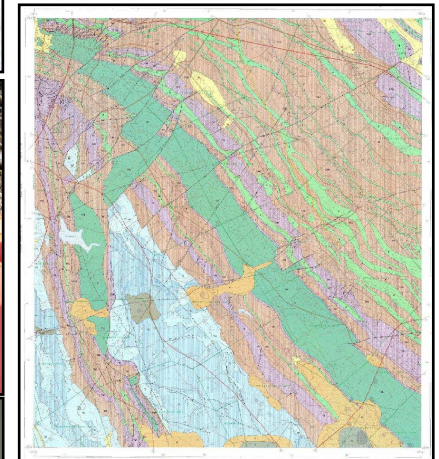
Specialising in Geoscience and Geodesy



Proposed Geotrain Specialising in Geoscience and Geodesy

Envisaged Research includes:

- Mapping
- Geophysics
- Geochemistry
- Engineering Geology
- Groundwater
- Mineral Exploration
- Seismology
- Small Mining –Building Material
- Space Geodesy
- Lunar Laser Ranging



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be refurbished and equipped



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Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be refurbished and equipped to host a Physical Property Laboratory

Andre Krzinger, 20 January 2006



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Proposed Geotrain Specialising in Geoscience and Geodesy

How the train should be refurbished and equipped
to host a Electronic and Seismology Workshop



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Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be refurbished and equipped to host a Soil and Geochemistry laboratory



Proposed Geotrain Specialising in Geoscience and Geodesy

How the train should be refurbished and equipped to host a Geohydrology laboratory



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be refurbished and equipped to host Geohydrology Equipment



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be refurbished and equipped to host a Petrology laboratory



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be refurbished and equipped to have a Geophysics capability



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

The following rolling stock should be purchased from Spoornet:

- 1 X Kitchen Car.
- 1 X Dining Car.



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

The following rolling stock should be purchased from Spoornet:

- 3 X First Class Sleeper Coaches.
- 2 X Third Class Coaches to be modified for Museum Exhibitions.
- 2 X Third Class Coaches to be modified for Working Space Area.
- 2 X Third Class Coaches to be modified for Laboratories.



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

The following rolling stock should be purchased from Spoornet:

- 2 X Baggage Car for storage.
- 1 X Baggage Car for modification to transport cars and motorbikes.



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

The following rolling stock should be purchased from Spoornet:

- 1 X Stainless Steel Water Tanker.
- 1 X baggage car modified as a Power Car.
- 1 X Diesel Tanker.



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

The following rolling stock should be purchased from Spoornet:

- 1 X Low bed to transport Backacters and Auger drills.
- 1 X Bogie for general transport



Proposed Geotrain

Specialising in Geoscience and Geodesy

How the train should be composed

The following rolling stock should be purchased from Spoornet:

- 1 X Special Low bed to transport Backacters and Auger drills.
- 2 X Class 34D Diesel Locomotive.



Proposed Geotrain Specialising in Geoscience and Geodesy

Is Matjiesfontein Station suitable?

Proposed Geotrain

Specialising in Geoscience and Geodesy

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Proposed Geotrain

Specialising in Geoscience and Geodesy

Is Matjiesfontein Station suitable?



Thank you

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Proposed Geotrain Specialising in Geoscience and Geodesy

Time frame and financial implications of the train

<u>Proposed Year</u>	<u>Activity</u>	<u>Inferred Cost</u>
Year 1	Purchasing of Rolling stock from Spoornet.	R2.5M
Year 1 to Year 3	Refurbishing of rolling stock by Transwerk.	R25M
Year 1 to Year 3	Acquiring, procurement equipment for Geotrain.	R12.5M
Year 3 to Year 13	Running costs and services.	R2.0M/month
Year 3 to Year 13	Shedding	R1.2M/year
	Total Costs (Fixed)	R40M
	Running Costs?	