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Data Activities Portfolio:

A Research Based Approach for Infusing 21st Century Physics into the High School Classroom

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Engaging Teachers

Making 21st Century Physics Approachable

- Connect to traditional content topics
- Clearly address standards
- Overcome fear of complexity

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Engaging Teachers

Guiding Philosophy of the Portfolio

- Public Access
- Searchable
- Guided Inquiry
- Data Driven
- Claim – Evidence – Reasoning
- Making Sense from Data

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Engaging Teachers

Overcoming Fear of Complexity

- Teacher Notes
  - Standards
  - Prior Knowledges
  - Resources
  - Implementation Guide
  - Assessment Suggestions
- Student Pages
- Links to Data

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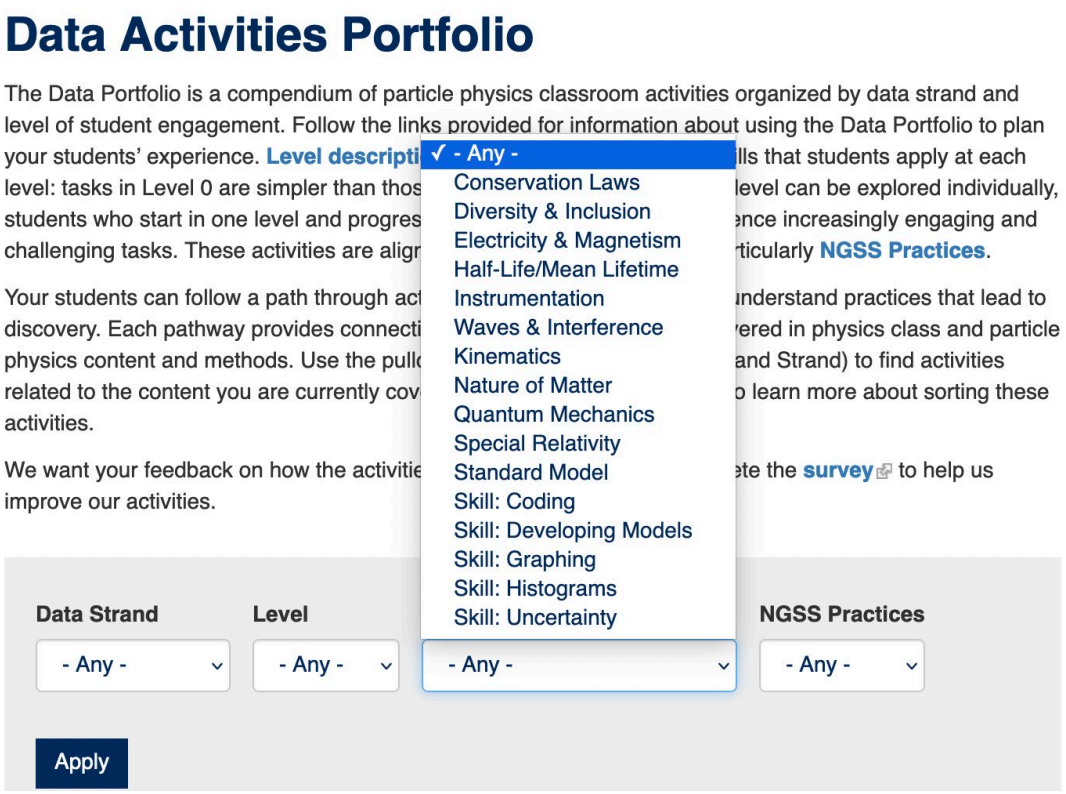
Data Activities Portfolio

Activities Incorporating 21st Century Physics

- https://quarknet.org/data-portfolio



Evidence of Effectiveness

Effectiveness

- Half of the QuarkNet teachers surveyed report using DAP activities.
- Anecdotal reports of use of skills and strategies.
- Sustained virtual contact during Covid.

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Conclusion

Impacting Curriculum

- Provide access to vetted activities available on public web site.
- Reach out to existing programs & organizations to develop relationships.
  - Science teacher organization
  - State, local physics teacher groups
- Share data to support additional activity development.