



# **21<sup>st</sup> Century Physics Integrated into the High School Physics Classroom**

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# Engaging Teachers

## Making 21<sup>st</sup> Century Physics Approachable

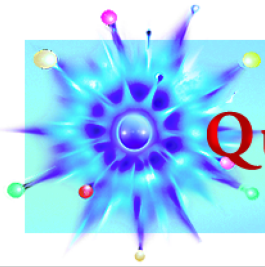
- **Connect to traditional content topics**
- **Clearly address standards**
- **Overcome fear of complexity**



# Engaging Teachers

## Guiding Philosophy of the Portfolio

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

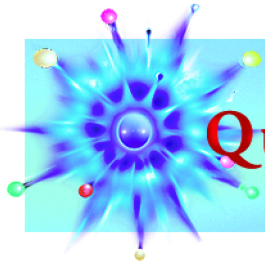


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# Engaging Teachers

## 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 21<sup>st</sup> Century Physics

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

### Data Activities Portfolio

The Data Portfolio is a compendium of particle physics classroom activities organized by data strand and level of student engagement. Follow the links provided for information about using the Data Portfolio to plan your students' experience. **Level description** - Any - Alls that students apply at each level: tasks in Level 0 are simpler than those for students who start in one level and progress to more challenging tasks. These activities are aligned with the **NGSS Practices**.

Your students can follow a path through activities that lead to discovery. Each pathway provides connections between physics content and methods. Use the pull-down menu (Data Strand and Strand) to find activities related to the content you are currently covering. To learn more about sorting these activities, see the **survey** to help us

We want your feedback on how the activities are working to improve our activities.

Data Strand	Level	Category	NGSS Practices
- Any -	- Any -	- Any -	- Any -
<input type="button" value="Apply"/>			



# 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.**