# Science, Technology & STEM Grade 4-6

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| Tuesday, September 22 | | |
| **Learning Goal:**   * I can **use problem solving skills** to design, build and test a mini-glider that flies across a room. | **Task**   * In the [video](https://www.youtube.com/watch?v=BfCt5sMyVJ4) you will learn how to use materials you can find in your home to make a mini-glider. * **Design:** What materials in your home could help you make a mini-glider that can fly across a room? * **Build:** Gather your materials and make your own mini-glider * **Predict:** how far do you think your mini-glider will travel? * **Test**: Test your design by flying your mini-glider across the room. Did it go as far as you thought it would? What would you change about the design if you had to build it again? | **Kids Engineering: Build a Mini-Glider**    Video: <https://www.youtube.com/watch?v=BfCt5sMyVJ4> |
| Wednesday, September 23 | | |
| **Learning Goal:**   * I can use **problem solving skills** to **design**, **build** and **test** a Rube Goldberg machine that performs a specific task. | **Task**   * Watch the video to see students in grade 5 and 6 testing Rube Goldberg machines. * **Design:** Using objects found around your house design a Rube Goldberg machine that solves a simple problem (e.g., ringing a bell or knocking over a block) * **Build:** Gather your materials and build your Rube Goldberg Machine. * **Test:** Test your design to see if your Rube Goldberg machine works. Continue to make adjustments until the machine performs what it was intended to do. | **Grade 5 and 6 Rube Goldberg Machines**    Video: <https://www.youtube.com/watch?v=WNfcjfHoaVc> |
| Thursday, September 24 | | |
| **Learning Goal:**   * I can use **investigative** and **research skills** to design a space suit that will help humans adapt to life in space. | Task:   * Watch the [video](https://www.youtube.com/watch?v=RWpItu8JGFM) to learn how space suits are made. * **Design:** using pencil and paper or 3D modeling software like [Tinkercad](https://www.tinkercad.com/) or [SketchUp for Schools](https://www.sketchup.com/products/sketchup-for-schools) design and label your own spacesuit. * **Predict**: What features would be most important to include if you were travelling in space? * **Reflect**: what do you think it would feel like to be in space? What do you think your suit would help you do? | Video:  <https://www.youtube.com/watch?v=RWpItu8JGFM> |
| Friday, September 25 | | |
| * I can use **technological problem solving skills** to **design** and **build** and **test a** working amplification device. | * Watch the [video](https://www.youtube.com/watch?v=R5v0K23E_eE) to see how you can make a simple speaker that amplifies sound. * **Design**: Gather materials to design a simple speaker that will amplify the sound from a device in your home (e.g., mobile phone, tablet, computer or your own voice). * **Build:** Construct your speaker * **Test:** Place your speaker over a sound source and observe whether or not you were able to increase the volume * **Reflect:** Did it work? Why or why not? Think about what shapes will best amplify sound? | Design a DIY Speaker from Simple Materials    Video: <https://www.youtube.com/watch?v=R5v0K23E_eE> |