### How the World Works – Simple Machines

| Week 1 | • Children complete a mindmap about “what is work?”
|        | • Then they research into the dictionary to find the definition of work - direct to the scientific definition.
|        | Watch Audrey - Rube Goldberg
|        | https://www.youtube.com/watch?v=0uDDEEHDF1Y
|        | • Explore trolley books
|        | • Children play with some simple machines - like the poster and complete “How do these work sheet?”
|        | • Watch a BrainPOP on work /simple machines - to stimulate words and ideas related to simple machines.
|        | • Central Idea: Simple Machines play a role in our everyday lives - definition activity.
|        | • Safari Montage - Real World Science - Simple Machines
|        | • Explore Force: BrainPop - Gravity and Push/Pull episodes; use tools - balls, balloon, car on carpet vs car on lino to show and chat about.

| Week 2 | • Explore books / videos etc to find the meaning of terms used.
|        | • Watch Sid the Kid episodes related to simple machines - Amazing Invention (Lever); Tree House (Pulley); Gabriella’s Balancing Act (Lever and balance); My Slide (Incline Plane); The Broken Wheel (Wheels)
|        | • Explicitly teach forces - push, pull, gravity, friction, magnetic, force
|        | • In UOI book write the definition of the vocab and children draw diagrams to help explain the concepts.
|        | • Encourage them to reflect and wonder.
|        | • Identify SIMPLE MACHINES - 6 types - screw, wedge, lever, pulley,
|        | • Explore a range of activities using these machines

| Week 3 | • Complete SEE/THINK/ WONDER on the Compound Machine Pictures
|        | • Identify simple machines within compound machines.
|        | • How simple machines make a compound machine work.
|        | • I can see ............in scissors
|        | • Look at a compound machine e.g. bicycle What simple machines are in the compound machine?
|        | • STEM activities:

Simple Machines websites:
| Week 4/5 | • SUMMATIVE: Work on / draw /create a compound machine made up of simple machines to do “work” - that makes life easier.
• Children design, draw and construct a machine from recyclable materials. They have 2 scenarios to choose from to make a suitable machine. They need to include at least 2 simple machines in their construction.
• Once complete they will reflect and we will have a Simple Machine Gallery walk for the parents and younger grades – to share the journey.

http://www.msichicago.org/fileadmin/Activities/Games/simple_machines/

http://www.edheads.org/activities/simple-machines/


You might also be able to find some more resources, especially videos, here.
http://www.neok12.com/Simple-Machines.htm