Year Group: 11 Term: 2 (Separate sci Forces)

We are learning:

1. **Moments – Turning effect of a force:**
   Moment=Force×Distance from pivotMoment=Force×Distance from pivot
2. **Levers and Gears – Devices that increase the effect of a force by changing distance or direction.**
3. **Pressure in Solids – Pressure = force ÷ area:**
   P=FA*P=AF*
4. **Pressure in Liquids – Increases with depth and density:**
   P=hρg*P=hρg*
5. **Upthrust and Floating – Objects float when upthrust equals their weight.**
6. **Atmospheric Pressure – Decreases with height due to fewer air particles above.**

How can you support your child:

- Encourage them to make revision posters on each of the sub-topics within the topic.
- Encourage them to make cue cards with questions and answers on all the sub-topics.
- Encourage them to use the notes, videos, and quizzes, on BBC Bitesize.
- Encourage them to use Seneca Learning to supplement and secure their knowledge on the topic.

Try asking them:

1. **"How do we make something turn?"**
   Answer: We apply a moment — a turning force around a pivot.
2. **"What helps us lift heavy things more easily?"**
   Answer: Levers and gears — they increase the effect of a force.
3. **"How do we calculate pressure on a surface?"**
   Answer:
   P=F/A (Pressure = force ÷ area)
4. **"Why does pressure increase the deeper you go in water?"**
   Answer: Because there's more water above you —
   P=hρg (height × density × gravity)
5. **"Why do some things float and others sink?"**
   Answer: If upthrust is greater than weight, they float!
6. **"Why is it harder to breathe at the top of a mountain?"**
   Answer: Atmospheric pressure is lower — fewer air particles above you.

Useful Links:

Senecal Learning = https://senecalearning.com/en-GB/

BBC Bitesize = GCSE Physics (Single Science) - AQA - BBC Bitesize

Kerboodle = www.kerboodle.com