## **PPE2 revision list.**

It was clear that revision was not a focus when preparing for the last round of PPEs. **You must fix this.** 

We have built the revision into questions that you should be able to answer.

You also need to focus on practicing your drawing skills, Isometric, third angle and perspective needs to be techniques that you should be confident with.

Week beginning 15th January

Week beginning 22nd January

Week beginning 29<sup>th</sup> January

Week beginning 5th January

Week beginning 13th February (½ term)

Week beginning 20th February

**Core Technical Principles** (all page references refer to your CGP blue revision guide)

| Торіс                              | R | Α | G | To further your understanding try answering these                       | Page   |
|------------------------------------|---|---|---|---|--------|
|                                    |   |   |   | questions:  | ref.   |
| Powering systems                   |   |   |   | o Identify the difference between a Finite and Non-finite               | p.12-  |
|                                    |   |   |   | fuel.   | p.13   |
|                                    |   |   |   | o Be able to name examples of fossil fuels                              |        |
|                                    |   |   |   | <ul> <li>List an advantage and disadvantage of nuclear power</li> </ul> |        |
| Sustainability                     |   |   |   | o Explain the meaning of the six Rs – Reduce, Reuse,                    | p. 6-9 |
|                                    |   |   |   | Refuse, Repair, Recycle, Rethink  |        |
| Designing and<br>Making Principles |   |   |   | o Be able to explain the Iterative Design process.                      | p.104- |
|                                    |   |   |   | <ul> <li>Explain why designers conduct research and product</li> </ul>  | p 108  |
|                                    |   |   |   | analysis before designing.  |        |
|                                    |   |   |   | <ul> <li>Be able to define specific technical language:</li> </ul>      |        |
|                                    |   |   |   | o Ergonomics  | p 102  |
| Specialist<br>terminology          |   |   |   | o Anthropometrics   | p 96   |
|                                    |   |   |   | o Aesthetics  |        |
|                                    |   |   |   | o CNC   | p 4-5  |
|                                    |   |   |   | o CAD/CAM   |        |
| Work of others                     |   |   |   | o Be able to list a designer and design era and comment                 | P 94-  |
|                                    |   |   |   | on their impact on design and society                                   | 95     |
| Mechanical Systems                 |   |   |   | <ul> <li>Be able to describe different types of motion</li> </ul>       | p.28 - |
|                                    |   |   |   | o Explain the difference between a first, second, and                   | 31     |
|                                    |   |   |   | third order lever   |        |

| Materials - Metals  O Be able to name three hard and softwoods stating their appearance, properties and what they could be used for  O Explain where metal is sourced. O Be able to define a ferrous metal O Be able to define a non-ferrous metal O Be able to define a non-ferrous metal O Be able to define term - alloy O Name three non-ferrous metals, detailing their properties and uses O Name three ferrous metals, detailing their properties and their uses. O Define toughness, hardness, ductile, malleability, tensile strength - relating to properties of metals O Understand the difference between a thermosetting and a thermoplastic O Be able to name two thermoplastic and two thermosetting plastics explaining their properties and possible uses O Explain how the vacuum forming process works O Explain how the injection moulding process works (Lego) O Explain how the blow moulding process works  O Understand what is meant by a Smart Material O Be able to name three examples of a Smart material and their uses O Understand what is meant by a Modern Material  | 1                          | 1 | Alama and applicable different time (1)             |       |
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| Renewable energy   |                            |   |   | ļ     |
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|                |  | o Solar?   |      |
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