**** **TAPS Cymru Plan for Focused Assessment**

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| **Science and DT topic:** Forces or Materials | Year 5Age 9-10 | Title: Paper planes |
| **Enquiry Focus**Plan enquiry, recognising and controlling variables | **Concept context** Ways in which forces can affect movement, including air resistance |
| **Assessment Focus*** Can children plan a fair test to investigate factors affecting paper plane flights?
* Can children identify variables which they can control?
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| **Activity** *Today we will be aeronautical engineers.*Explore making and flying paper planes. Discuss different features of the planes and how they could tell which flew ‘best’? Clarify the need to investigate 1 thing at a time, to see if it has an effect – each group will change 1 feature (not the whole design). Identify different variables which could be changed (e.g. type/size of paper, number of folds, angle of flaps etc.) or measured (e.g. distance flown or flight time).Use post-it planning boards to plan a fair test. Ask pupils to show you/explain to you how they will be keeping their test as fair as possible (this can be done at the beginning and during the investigation, enabling more children to explain/show you).Discuss how to carry out the investigation safely (e.g. throw in one direction, name planes).Carry out tests and discuss outcomes for different plane features.**Adapting the activity** **Support:** Provide a plane template and discuss what could be changed about that design.**Extension:** Which variables will be easier/harder to control?**Other ideas:** Compare different designs with a focus on repeated measures rather than variables.**Questions to support discussion** * What is your question?
* How will you investigate this?
* How will you keep your test fair?
* What will you change?
* What will you measure?
* What will you keep the same?
* Can you explain why you have made these decisions?
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| **Assessment Indicators** **Not yet met:** Can say what is being changed. May need support to explain what must be kept the same.**Meeting:** Can plan a fair test identifying one thing to change, one thing to measure/observe and important factors to keep the same.**Possible ways of going further:** Identifies a range of factors to keep the same, together with noting which variables would be difficult to control. |



Teacher box 4 – gather evidence in a range of ways. See TAPS pyramid for more examples.