Physics investigation planning sheet

Fill in the top half before your first reading. Use the note lines for your prediction and its reason, and for everything you keep the same, with values. Tick a box only when it is true for your own investigation, and write readings straight into the grid with their units.

Name and class _____

Topic and chapter _____

Question (one sentence) _____

I change (unit) _____

I measure (unit) _____

Least count of each meter _____

BEFORE THE FIRST READING

- ☐ My question names one quantity I change and one I measure.
- ☐ My prediction is written in words, with the reason from theory.
- ☐ Everything I keep the same is listed, with its value.
- ☐ I have chosen at least six settings, closer together where the graph may bend.
- ☐ A quick trial across the whole range shows a clear change on the meter.
- ☐ Every meter has been checked for zero error.

READINGS GRID: THREE READINGS AT EACH SETTING

- ☐ Setting 1: _____ Reading 1: _____ Reading 2: _____ Reading 3: _____ Mean: _____
- ☐ Setting 2: _____ Reading 1: _____ Reading 2: _____ Reading 3: _____ Mean: _____
- ☐ Setting 3: _____ Reading 1: _____ Reading 2: _____ Reading 3: _____ Mean: _____
- ☐ Setting 4: _____ Reading 1: _____ Reading 2: _____ Reading 3: _____ Mean: _____
- ☐ Setting 5: _____ Reading 1: _____ Reading 2: _____ Reading 3: _____ Mean: _____
- ☐ Setting 6: _____ Reading 1: _____ Reading 2: _____ Reading 3: _____ Mean: _____
- ☐ Setting 7: _____ Reading 1: _____ Reading 2: _____ Reading 3: _____ Mean: _____
- ☐ Setting 8: _____ Reading 1: _____ Reading 2: _____ Reading 3: _____ Mean: _____

GRAPH AND CONCLUSION

- [ ] Both axes are labelled with the quantity and its unit.
- [ ] One straight line or one smooth curve, not dot to dot.
- [ ] The shape of the graph is described in words.
- [ ] The result is compared with my prediction and the theory.
- [ ] The conclusion stays within the range I tested.

ERRORS AND SAFETY

- [ ] Two real sources of error are named, with what I did about each.
- [ ] The circuit was switched off between readings.
- [ ] Mains boards were plugged in by an adult; I worked on the low-voltage side only.
- [ ] On DC, capacitors were the right way round and within their rating; on AC, only non-polarised ones were used.
- [ ] The printed report helped with the writing only; every reading here is mine.

NOTES

> Check the file format and the date it is due with your physics teacher.