

4.8: Thinking about the material .

4.8.1: Reflect and research

1. It was once believed that there was an absolute reference frame called the “luminiferous aether”. What was the name of the experiment that disproved the existence of this frame of reference?
2. Find the centripetal acceleration of the Earth around the Sun.

4.8.2: To try at home

1. Describe and carry out a small experiment to confirm that the amount of time that it takes for a projectile to fall a certain distance does not depend on the horizontal component of its velocity.

4.8.3: To try in the lab

1. Develop a proposal for measuring how fast you can throw a ball, and carry out the experiment.
2. Develop a proposal for measuring how far you can jump with a running start (e.g. a long jump).
3. Propose an experiment to determine the period of the sun’s rotational motion.

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