



Royal Holloway Science Festival 2013 – Answers

Puzzles

Puzzle I A simple substitution cipher.

Key Decoder #1.

Plaintext *"LUKE SKYWALKER NEVER MET CAPTAIN JAMES KIRK"*.

Puzzle II A partial transposition cipher.

Key Order of the top row is IRONMAN

Plaintext *"TONY STARK BUILT THE ARC REACTOR TO PROVIDE POWER TO THE IRONMAN SUIT"*.

Puzzle III A stream cipher (One-time pad).

Key "HAMMERSHIELD".

Plaintext *"THE AVENGERS ARE BETTER THAN THE JUSTICE LEAGUE"*.

Puzzle IV A polyalphabetic cipher (Vigenère).

Key "MASK".

Plaintext *"IDEALLY A STAR OTHERWISE A SPHERE"*.

Puzzle V A block cipher (Electronic Code Book (ECB) Mode).

Key "DINOSAUR".

Plaintext *"YOU MAY LIKE MORE OF OUR CHALLENGES"*.