**

***Fairground ride***

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| **Session breakdown** | **Objectives** | **Activities** |
| *Introduction* | * Introduce Juniorstem and give a brief outline of the session.
* Assess prior knowledge and introduce STEM subjects/Robotics
* Introduce kits/equipment
* Tell children their learning Targets and the skills I will be looking for
 | * Class discussion
 |
| *Identifying Lego pieces and working accurately* | * How to use colour, shape and studs to identify pieces
* To use studs to work accurately
* How to join pieces and strengthen structures
* Workshop rules
 | * Teach and learn
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| *Lego software and algorithms* | * To teach children how to write an algorithm using Lego software blocks

(INPUT/OUTPUT, motor on/off, program keys, direction, power, timer, sounds and display) | * Interactive class teaching with volunteers
* Practical challenge: Make your own simple motor machine – write an algorithm to control it
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| *Tidy up* | * Keep work area tidy and replace equipment for future use
 | * Class tidies up!
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| *Pulleys* | * Teach children how pulleys work
 | * Teach and learn
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| *Model instructions* | * Teach children how to use the Lego instructions
* Review engineering skills
 | * Teach and learn
 |
| *Build* | * Use skills taught to build a fairground ride using the instructions
* Add your own ideas to the model
 | * Practical challenge
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| *Program* | * Use programming skills taught to write an algorithm to control the fairground ride, a background and sound.
 | * Practical challenge
 |
| *Tidy up and review learning targets* | * To self assess and review learning
 | * Class discussion
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