TITLE: Could Robots take over the World?

**AREAS of LEARNING**

As geographers we will explore different types of settlements in the text *The Iron Man* and investigate the similarities and differences in our own communities;

As historians we will explore the history of robots and how this technology has changed the type of jobs people do now including farming (link to text);

As design technologists and artists we will make a largescale and small scale robot model of the *Iron Man* and a backdrop (refer to planning the *Iron Man* SEN/PSHCE); we will design our own robots of the future;

As scientists we will develop our knowledge and understanding of electricity and make simple and compound circuits, we will use bulbs, motors and switches to animate our robots (LKS2/UKS2 programme of study);

As computer specialists we will use stop-motion animations to create animations using our robots. We will work with programmers to design computer programmes and algorithms to make robots move. We will use our skills to research information with an awareness of e-safety.

As citizens of the future we will investigate the changing role of robots and consider the question: ‘Could Robots take over the World?’

**CURRICULUM DRIVERS**

**Belonging: A sense of community**
- Breakfast Club - Daily
- New Beginnings – SEAL
School community – understanding The Stephen Longfellow Academy culture and ethos, pupils’ local community, the UK including British Values and our responsibility within a global community (SLUG);
- Rights & responsibilities (assembly themes);

**RWS: Resilience, well-being & success**
- Purple zone – developing independence (link to TGAT)
- Iterative teaching approaches
- Emotional check-ins
- Restorative circles
- Emotion coaching activities
- Team-building OAA
- Peer mentoring training
- Activities to develop good relationships and respect

**WIDENING HORIZONS**

**Visits and visitors:**
- Robot workshop: [www.computerexplorers.co.uk](http://www.computerexplorers.co.uk)
- 01423 431226 (Lauren);

Explore [WEDOBOTS](https://www.theproblemsolvingcompany.co.uk/primary-school-team-building/)

**Possible trips:**
- Temple Newsome Farm (history of farming over time)
### Work collaboratively using purposeful teamwork skills.

**Target setting:** where will you be in the future?
- Parachute of dreams;
- Success shields.
- GAP (Curriculum around the Pupil – linked to positive discipline)

**RE Unit 4.2:** What words of wisdom can guide us?
- Music to inspire: *The World’s Greatest, Hall of Fame*

- Lineham Farm - Eccup;
- Diggerland;
- Whitby – to explore coastal features.

### Learning Across the Curriculum

### Areas of learning linked to key skills and knowledge in the national curriculum

- ‘Learning to Learn’ skills progression based on:
  - Reflective learning
  - Effective relationships
  - Resilience
  - Being resourceful

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<tr>
<th>USING COMMUNICATION</th>
<th>PERSONAL DEVELOPMENT</th>
<th>HISTORY</th>
<th>GEOGRAPHY</th>
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| Drama activities: hot-seating, thought-tracking, interviews, script-writing and acting. ‘Dramatised’ reading/retelling of a part of *The Iron Man* with sound tracking (using Ted Hughes’ reading as a stimulus).
| Learning and Thinking Skills link to BLOOMS TAXONOMY: |
| - I can ask and answer ‘digging deeper’ questions.
| - I can research relevant information and take effective notes.
| - I can look for patterns and trends in simple data and solve problems.
| - I can plan how to organise and present a range of information.
| - I can put forward my personal opinion and listen to the ideas of others.
| - I can create, plan and complete a project.
| - I can create ideas for persuasive arguments and creative writing.
| - I can communicate my ideas when speaking and in writing.
| - I can explain and justify what has worked well |
| Investigate: When finding answers to historical questions, I can use primary and secondary sources of information as evidence to test ideas.
| Analyse evidence: I identify change and continuity over time to the present day.
| Communicate: I produce structured work, making reference to dates and historical terms.
| Consider and Respond: I can identify some causes and consequences of how technology changing over time affects people. |

| Using co-ordinates to make robot pictures – curious co-ordinates:1 (extend to negative numbers for more able pupils);
| NRICH: Robot monsters (using addition, subtraction and measuring skills). |

| Literacy planning |
| Unit of Work: *The Iron Man* by Ted Hughes |

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<th>USING MATHEMATICS</th>
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| Investigate: I use my knowledge to suggest suitable geographical questions. I describe different points of view on an environmental issue (link to the moral debate in the *The Iron Man*) affecting a locality and give my opinion on an issue, giving reasons and justifying my viewpoint.
| Analyse Information: I understand that people can both improve and damage the environment. I understand that physical and human processes can change the features of places. I explain how these changes affect the lives and activities of people living there. I understand the importance of wider geographical location in understanding places.
| Communicate: I show some knowledge and understanding of the geography of my locality. I recognise and describe the physical and human features of places I am familiar with. I communicate my findings using geographical vocabulary. |
Robot building – themed mathematical puzzles.

The White Rose Maths Hub, mixed age (KS2) mathematics planning will be used for curriculum delivery.

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<tr>
<th><strong>Personal and Emotional Skills</strong></th>
<th><strong>Consider &amp; Respond:</strong> I offer reasons for my own views about environmental change. I recognise that other people may hold different views.</th>
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<tbody>
<tr>
<td>I work hard and encourage others to work hard.</td>
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<td>I can identify my strengths and areas for development.</td>
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<td>I can set goals for myself and others in our school community.</td>
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<td>I can manage my own feelings and have an awareness of the feelings of others;</td>
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<td><strong>Social Skills</strong></td>
<td><strong>Citizenship</strong></td>
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<td>I can listen and respond appropriately to my teachers, coaches, peers in the classroom on trips and to visitors.</td>
<td>I investigate issues affecting communities using a range of sources. I identify some of the diverse groups and communities in the UK and the wider world. I explore how these relate to my own identity and community.</td>
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<td>I can work collaboratively &amp; participate in team building activities.</td>
<td>Analyse Evidence: I discuss what is fair and unfair and link this to rules and democracy.</td>
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<td>I can give constructive feedback to others.</td>
<td>Communicate: I explain some of the different ways in which people can take part in democracy in our school and the UK and how democracy can change things.</td>
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**Consider and Respond:** I identify different viewpoints involved. I make informed contributions to discussions and debates giving some reasons for my views. I work with others to plan and carry out a course of action to address issues that we feel are significant in our community.

**ART and DESIGN**

**Explore:** I can develop my robot design ideas from the study of images:

**Refine:** I can develop my work in progress:

**Present:** I can use my ideas so that my finished work evokes a response:

**Evaluate:** I can discuss my own work in relation to its context.

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**DEVELOPING, PLANNING AND COMMUNICATING IDEA:** I generate ideas and recognise that my designs have to meet a range of different needs. I make realistic plans to achieve my aims. I think ahead about the order of my work, choosing appropriate tools, equipment, materials, components and techniques. I clarify my ideas using labelled sketches and models to communicate the details of my designs.

**WORKING WITH TOOLS, EQUIPMENT, MATERIALS AND COMPONENTS TO MAKE QUALITY PRODUCTS:** I use scoring, and folding to shape materials accurately. I make cuts (scissors, snips, saw) accurately. I make holes (punch, drill) accurately. My methods of working are precise so that products have a high quality finish. I have made a product that uses both electrical and mechanical components.

**EVALUATING PROCESSES AND PRODUCTS:**

I identify where my evaluations have led to improvements in my products.

**KNOWLEDGE AND UNDERSTANDING OF MATERIALS AND COMPONENTS:**

I join materials to make products using both permanent and temporary fastenings. I use simple and or complex circuits to either illuminate or create motion.

Stand-alone areas of the curriculum: PE, MFL