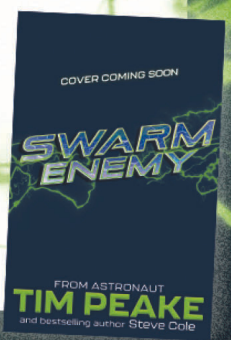


SWARM RISING

TIM PEAKE and STEVE COLE

EXTRACTS AND NOTES FOR
KS2 TEACHERS & LIBRARIANS

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Introduction and Contents

INTRODUCTION:

Suitable for ages 9+

Explore themes of:

- Sci-fi Adventure
- Artificial Intelligence
- Protecting Planet Earth
- Working Together

Subject Checklist:

- Literacy
- Science
- Geography
- Art, Design & Technology
- PSHE

CONTENTS:

EXTRACT 1: They're Coming

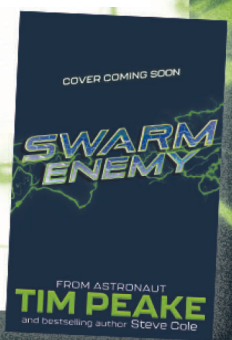
Objectives: Understand and identify key elements of the sci-fi genre; design a book cover and write a blurb for your own sci-fi adventure.

EXTRACT 2: Alien Digital Intelligence

Objectives: Analyse how the character of Adi is presented in the text; describe a journey through space and time in a Space Adventure Mission Report.

EXTRACT 3: Reboot!

Objectives: Consider how the book's environmental themes link to real world issues today; design a poster encouraging students to work together to help save the world.





About the Book

For fans of *Alex Rider*, *Young Bond* and *Cherub*, this exciting action-adventure is the first children's book by astronaut Tim Peake and bestselling author Steve Cole, and it's based on space-age science and technology.

When Danny is kidnapped by Adi – who can run through brick walls and make cars drive on water – he realises that all humans are in danger. Adi is part of a super-advanced hive mind, the Swarm, which intends to protect the Earth from the environmental catastrophe caused by the human race.

Adi – Alien Digital Intelligence in the form of a girl – can bend the laws of physics and control digital data, but as a digital being she wants to know what it's like to be human. Which is where Danny comes in.

But what exactly is the 'help' the secretive Swarm is offering? Can Danny and his friend Jamila help Adi stop the Swarm Agents and give humanity a second chance?





EXTRACT 1: THEY'RE COMING ...

It's time to get serious about aliens.

For years we've imagined aliens as little green people with enormous heads, big eyes, small bodies and long fingers. Perhaps we think this is how humans will evolve as we become more intelligent.

The truth is far more frightening than you could imagine.

Bodies, flesh, blood and brains are weak. We take years just to learn the basics of how to walk and talk. We can't survive without food, water and oxygen. We get ill, we grow old and die. But one day, perhaps sooner than you think, we will be able to simulate a human brain. Maybe we will be able to upload *your* brain into an extremely powerful computer. And from that moment on, you will no longer be weak. You will no longer need food, water or oxygen. And you will no longer die.

(Taken from page 1)

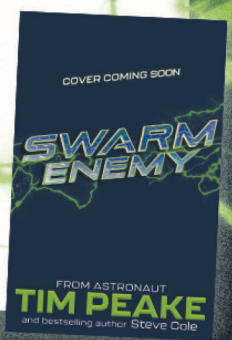
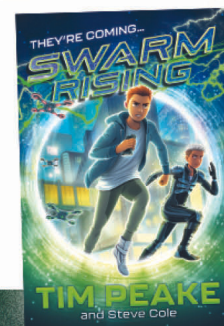




DISCUSSION QUESTIONS FOR EXTRACT 1: THEY'RE COMING ...

DISCUSSION QUESTIONS:

- How does the first line of the extract grab your attention? Explain your ideas.
- How have aliens been 'imagined' for years? Do you agree with this?
- Who or what is described as 'weak'? What examples are given to back up this claim?
- What do the words 'simulate' and 'upload' mean?
- How will this prevent humans from being 'weak' in the future?





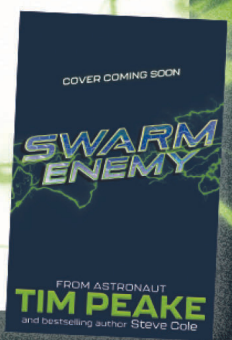
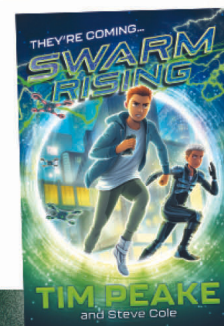
ACTIVITY 1: SCI-FI STORY PLANNING

QUESTION 1:

- *Swarm Rising* is part of the sci-fi genre (short for science fiction). This means that the story is largely influenced by or based upon real or imagined scientific theory or facts. Discuss what you know about the authors. Why might they be especially well-suited to writing this particular genre?

QUESTION 2:

- Take a look over the book title, cover, and extract again. How many typical elements of the science fiction genre can you spot? Note down in your book at least one example of each element. In another colour, do the same for any other science fiction books or films you know of.





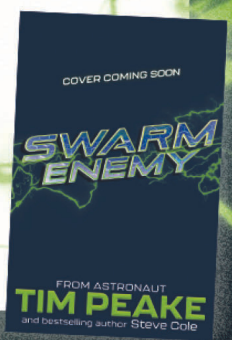
ACTIVITY 1: SCI-FI STORY PLANNING

KEY WORDS:

- **FUTURISTIC** = It is set in an imagined future
- **SCIENTIFIC AND TECHNOLOGICAL ADVANCES** = Experiments and new discoveries occur
- **ALIENS AND NEW LIFE FORMS** = Both friendly and also threatening
- **SPACE AND TIME TRAVEL** = The possibility of other planets and worlds

QUESTION 3:

- Design a book cover for your very own story, including a title and a blurb for the back cover describing what the book is about. Use your book cover and blurb as inspiration for a creative writing activity another day!



EXTRACT 2: ALIEN DIGITAL INTELLIGENCE

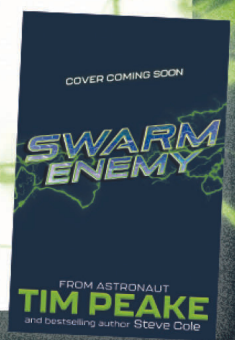
Someone stepped out of the cabinet: a girl, tall and lithe, with a shock of steely-white hair. Her face was unnervingly symmetrical. Flawless. She looked to be around my age, but I couldn't tell you what race she was: a mix of all the diversity in this world, or something altogether new. The girl wore a textured, blue-black jumpsuit and her eyes shone with the colours of some exotic bird. She gazed around the drab, dingy office like it was a treasure store – breathing in riches, drinking up delight.

‘Who are you?’ I whispered.

‘You know,’ she said loudly, then gasped to a stop and giggled. ‘Talking tickles, Danny! Sound tingles through your skull.’

I swallowed very hard. ‘You're Adi?’

(Taken from page 59)

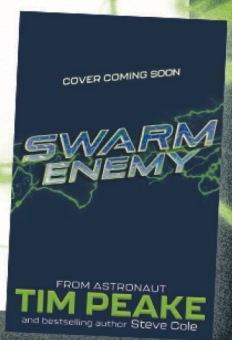
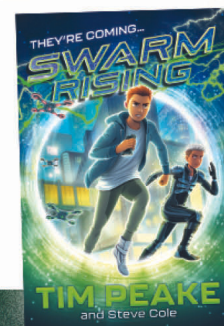




DISCUSSION QUESTIONS FOR EXTRACT 2: ALIEN DIGITAL INTELLIGENCE

DISCUSSION QUESTIONS:

- What adjectives are used to describe Adi? Underline or highlight them.
- How does the writer use verbs and adverbs to make Adi sound unusual and otherworldly? Give examples.
- What does 'Adi' stand for? What does this abbreviation mean?
- How do you think Danny is feeling in the extract? What clues are given?
- What examples of artificial intelligence exist in the world today? Give examples.

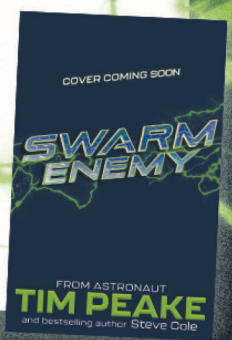
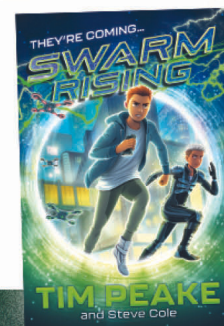




ACTIVITY 2: SPACE ADVENTURE MISSION REPORT

In the story, Danny's communication with Adi sparks the beginning of his own space adventure. It also enables him to better understand the Swarm or Dataswarm – a digital super-intelligence travelling through space at the speed of light in fast radio bursts. He recalls:

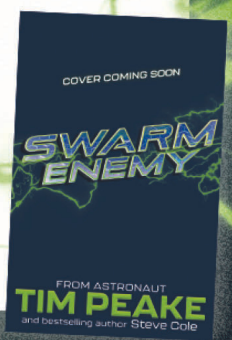
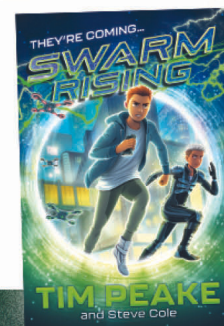
*After travelling as radio waves through the long dark and distance, this Swarm had stopped here. In my mind, I was with them. I felt the tug on my mind as our Swarm created a tiny black hole to anchor us in space – we were held there, twisted like a data-doughnut, perfectly balanced against the black hole's awesome forces.
(page 152)*





ACTIVITY 2: SPACE ADVENTURE MISSION REPORT

- Discuss what is happening to Danny here. Why do you have to be extremely imaginative to write sci-fi? How have the writers described what might seem like an indescribable experience?
- Imagine you have just embarked upon your own adventure through time and space. Write up your findings in a Space Adventure Mission Report!
- Note: You can use the events of *Swarm Rising* or your work from the previous lesson for inspiration, or even come up with brand new ideas. Remember, the more futuristic and imaginative the better!





SPACE ADVENTURE MISSION REPORT

BY.....

DATE.....

Description of planet or universe visited:

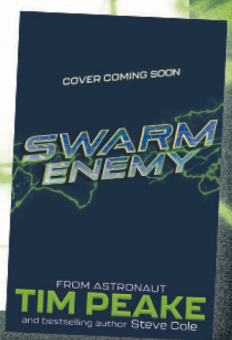
Description of aliens and any life forms encountered:





Potential dangers and risks exposed to:

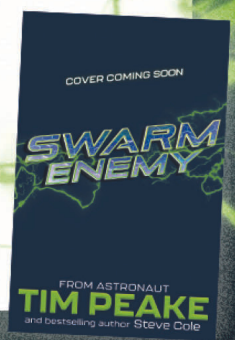
**Duration of journey and mode
of transportation:**





Summary of what happened on the mission:

Draw something that happened on the mission:



EXTRACT 3: REBOOT

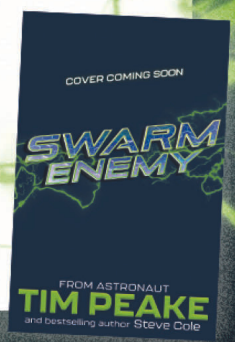
‘I told Adi already,’ I said, ‘humans won’t work in a swarm! Think of all the babies, or old people whose brains have gone fuzzy, all the different beliefs we have—’

‘The individual will no longer exist,’ Reboot told me. ‘An infant has a great capacity to learn. A mind shrunken with age still has knowledge locked inside. In the Swarm, all may contribute, regardless of age or status or ability. Humanity will be brought together in a state of connection. You will have no conflict, because you will own nothing, need nothing, desire nothing. You will become engines of thought, directed by the Hive and controlled by our logic.’

‘Directed? Controlled?’ I shouted. ‘Like slaves!’ But I could feel my own body glitch and flicker now, as Adi’s was doing, as a digital storm began to blow up inside of me. ‘Please . . . don’t . . . ! Adi?’

‘Hold on, Danny!’ Adi shouted. ‘You must hold on.’

(Taken from page 169)

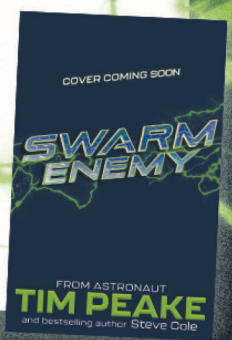
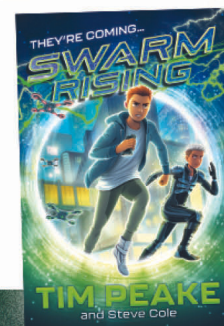




DISCUSSION QUESTIONS FOR EXTRACT 3: REBOOT

DISCUSSION QUESTIONS:

- Why doesn't Danny believe that humans will work in a swarm? Give examples.
- What does Reboot mean when they say, 'The individual will no longer exist'? Explain your ideas.
- Who and what will control humanity instead? Why is this bad?
- How are Reboot and the Swarm made to sound sinister and threatening in the extract? Give examples.
- Who must work together in order to save humanity?
- Who will Danny need to help him?





ACTIVITY 3: TIME TO SAVE THE WORLD!

- As the story draws to a close, Danny realises that the so-called ‘help’ that the Swarm is offering is not really help at all. Instead, they wish to obliterate humans in their physical form in order to save the planet.
- As a class, read over the quotes from the text below. Think about how these ideas are relevant to real world environmental issues. What messages do the writers leave you with about your responsibility in protecting the planet?

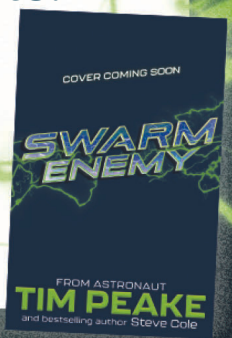
‘Your world is dying . . . It has passed the tipping point of being able to recover from the environmental damage your race has caused.’ (Reboot, pages 163–164)

‘What you care about is worth holding on to .. if you don’t want to lose it, you have to fight. *We* have to fight.’
(Danny, page 240)

‘I’ll say that your generation is going to do all it can to protect your world.’

‘We’ll do our best,’ I murmured. ‘I mean, we have to. Right?’

(Adi and Danny, page 279)





ACTIVITY 3: TIME TO SAVE THE WORLD!

- Now it's time for your class to work together to help save the world! Design an eye-catching poster encouraging students at your school to help protect the planet. You might like to include:
 - Why this is an important issue
 - What students can do to reduce their carbon footprint and climate change
 - Tips for generating less waste, recycling, and buying responsibly sourced products
 - How students can protect animals and wildlife both locally and across the world
 - Any other ideas about how to protect the environment and the planet
- Create a display for your posters that is **OUT OF THIS WORLD** and inspires other students and staff to work together to do their bit!

