

and the Case of the Great Energy Robbery

0

Illustrated by Amy Willcox

Copyright © 2023 by QuestFriendz First published in 2023 by QuestFriendz

All rights reserved. No part of this publication may be reproduced, stored in or introduced into a retrieval system or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior written permission of the copyright owner. Printed in Malaysia.



13579108642

Written by Lisa Moss and Dr Thomas Bernard; designed and art directed by Sophie Stericker. A special thank you to all contributors who helped us along the way. STEM content reviewed by WISE Young Professionals' Board. www.questfriendz.com



On an ordinary day...

11111

in a garden after school...

in the real, waking world...

Leo and his two best friends, Lilli and Bea, were on a quest – a quest to power a plane.

1111

111

Leo's mum, an engineer, had given them a model plane. Now all they had to do was work out how to make it fly.

'This plane has a special engine that is powered by a special fuel called biofuel,' explained Leo's mum.

'What's so special about it?' asked Bea.

'Well, unlike **fossil fuels** such as petrol, oil and gas, **biofuels** are a type of renewable energy made from organic materials from plants and animals. Sources of renewable energy cannot run out – just like organic materials and the solar energy we get from the sun. These renewable energy sources are much better for the environment too. And guess what – we have a magic ingredient for making biofuel right here in this garden...'

Biofuel is a type of fuel. A fuel is a source of energy used to power things such as engines in cars and planes.

Close your eyes, squeeze them tight.

stars will light the way so 6 their heads and also swirling all around them.

And when they opened their eyes again...

... they weren't in the waking world any more. And they weren't QUITE their normal selves either. 'Ah, at last!' said the Queen of Questland. 'Welcome back, Leo Zoom, Bea Bumble and Lillicorn. What took you so long?' The friends looked at each other, confused. 'Oh, um, sorry,' said Leo Zoom. 'We didn't know you were waiting.'

Here's your flight plan – it shows the location of the pipelines. You must shut off the flow of energy into the pipes, then head to Black Rock Island...I'll meet you there!' 'Er, flight plan?' said Bea Bumble, raising an eyebrow. 'You mean we have to fly a plane?'

> 1112

1. Take Off

'Yes, I'm afraid we need your help again. Lord Grumble is draining all the energy out of Questland and taking it to his hideout on Black Rock Island.

1111

those trees...'

7. Waveless Sea



'Of course!' said the queen. 'There's one waiting for you, just beyond

To shut off the wind energy pipe, restart the wind turbines by placing a CLOCKWISE or ANTICLOCKWISE sticker in the white boxes to show the direction of the green cog.

NOTE: A cog always turns in the OPPOSITE direction to the one next to it.

QUEST 3: Wind Turbine Hill

The next stop on the flight plan wasn't difficult to find. The friends could see the wind turbines from miles away. 'Wow, they're huge!' said Leo Zoom. 'How do they work?' 'I think they're like windmills. The wind makes the propellers spin,' said Lillicorn, 'and that creates energy.'

The only problem was – the propellers weren't spinning. 'I don't understand,' said Bea Bumble. 'I can feel the wind... and look at that wind sock! So why aren't they spinning?'

'It's that pipe,' said Leo Zoom. 'Look, it's sucking all the **wind energy** from the turbines before they can spin.'

'Do you think it's something to do with those cogs?' asked Lillicorn.

Wind energy is another renewable another renewable energy source. Wind turbines can generate turbines can generate in the seal







When you've finished, stick a cog sticker on your Reward Chart

