DIGITAL PLANET

WHAT IS CODING?

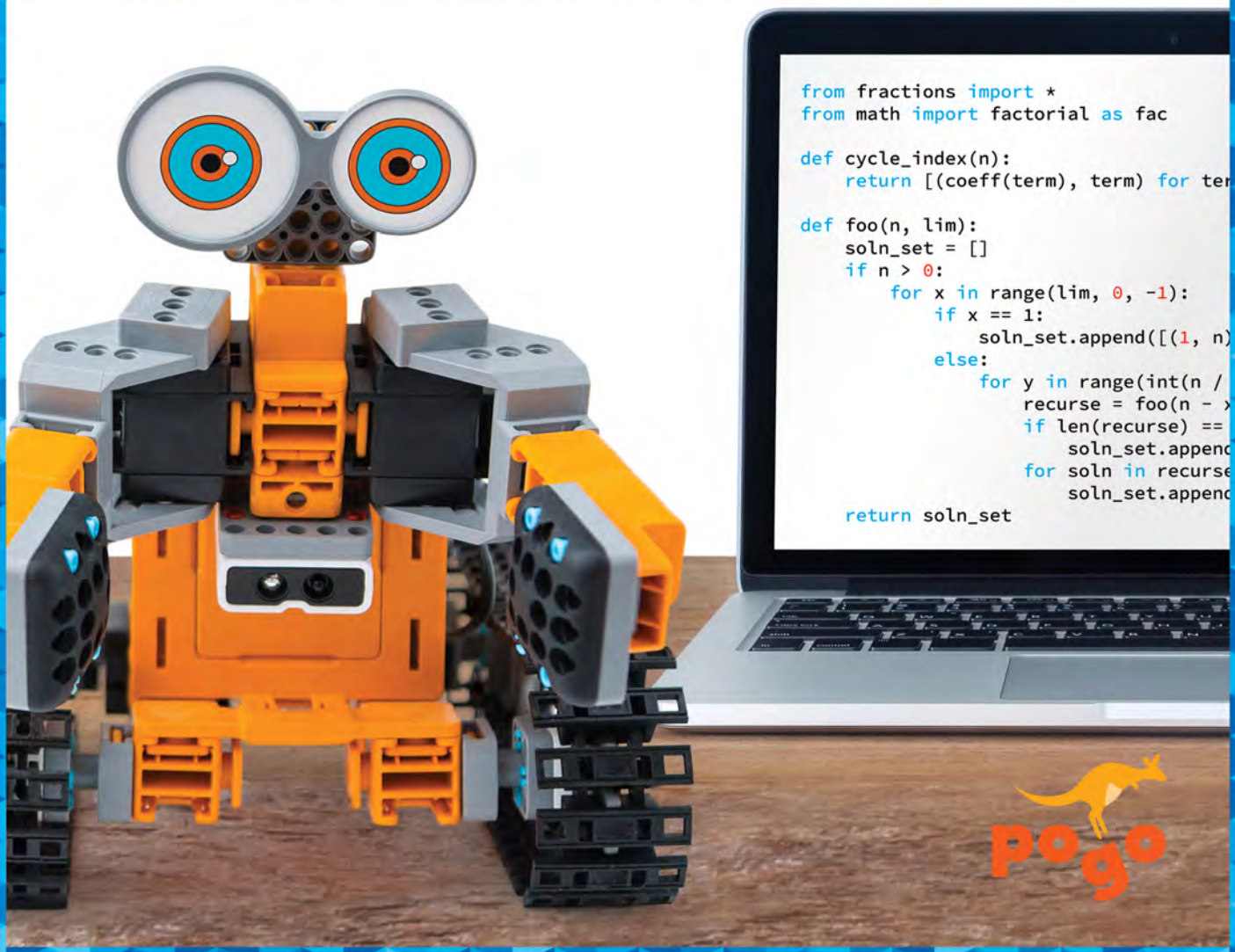


TABLE OF CONTENTS

CHAPTER 1
What Is Code? 4

CHAPTER 2
Many Languages 10

CHAPTER 3
Code to Computer 14

ACTIVITIES & TOOLS
Try This! 22
Glossary 23
Index 24
To Learn More 24

For Review Only



CHAPTER 1

WHAT IS CODE?

Do you play video games or look at websites? Or use apps? Code runs these.



For Review Only



Some cars drive on their own. Robot vacuums clean when we're not even home. But do they think for themselves? No. They follow code, too!

For Review Only

Code is typed in words. The words are step-by-step instructions. They are **translated** for a **device**. The code tells the device what to do.



For Review Only



For Review Only



For Review Only

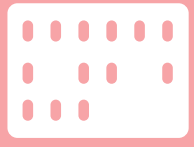


Code follows **algorithms**. These are complete sets of steps. They set up tasks within the program. They can do many things. Like what? They can sort lists. Or they can map routes.

Coders and **programmers** write code. They create **computer programs**. These are made of many algorithms!

DID YOU KNOW?

Code was once on paper! A card reader read holes in the paper. It sent the information to a computer.



FOR REVIEW ONLY

ACTIVITIES & TOOLS

TRY THIS!

WRITE AN ALGORITHM



We use algorithms all the time. A cooking recipe is an algorithm. So are the instructions to put together a toy. In this activity, you will write an algorithm for tying shoes.

What You Need:

- paper
- pencil

1. **Imagine you are explaining step-by-step instructions for tying a shoe.**
2. **On your piece of paper, make a numbered list. Write the first step for tying shoes next to number one.**
3. **Continue writing steps, with each next to its own number.**
4. **What is your final step? How do you know when the shoe is tied?**
5. **You have just written an algorithm! Try to follow your own instructions. Are your shoes tied tight?**
6. **If they are not, go back and edit your algorithm and try again.**

For Review Only