

Name _____ Class _____ Date _____

S1 Describe the **action–reaction** forces when you sit in a chair. Describe how these forces are different to a pair of **balanced forces** acting on you.

1 Here are some of the forces on *you* when you sit in a chair. Write down another force to make each one into an action–reaction pair. Remember that action–reaction forces act on *different* objects.

- a the force of gravity from the Earth pulling down on you _____

- b your weight pushing down on the chair _____

2 The same forces can be part of a set of balanced forces on an object. Write down the force that balances each of these forces. Remember that balanced forces act on *the same* object.

- a the force of gravity from the Earth pulling down on you _____

- b your weight pushing down on the chair _____

3 Tick the boxes to show the difference between action–reaction pairs and balanced forces.

	Action–reaction pair	Balanced forces
a Both forces are of the same type.	<input type="checkbox"/>	<input type="checkbox"/>
b Forces act in opposite directions.	<input type="checkbox"/>	<input type="checkbox"/>
c Forces are the same size as each other.	<input type="checkbox"/>	<input type="checkbox"/>
d Forces act on the same object.	<input type="checkbox"/>	<input type="checkbox"/>
e Forces act on different objects.	<input type="checkbox"/>	<input type="checkbox"/>
f Forces due to two objects interacting.	<input type="checkbox"/>	<input type="checkbox"/>

the chair pushing up on you	the chair pushing up on you
the force of gravity from you pulling up on the Earth	the Earth pushing up on the chair