

This week's topic: - Inventors & Inventions

Dear Parents & Carers,

Welcome to Year 5 & 6 home learning pack. We hope that the children enjoyed learning more about pirates and the Black Lives Matter movement last week. Thank you once again to those of you who shared your children's work with us via the school's email. We absolutely love seeing what the children have been up to, so please do keep on sending it in.

We would like to emphasise the importance of establishing a routine that works for you and your child. A reminder of one excellent routine (but not the only one) we heard of, which went like this:

(1) Quiet reading time
(2) PE with Joe Wicks
(3) Maths (White Rose)
Break time
(4) English / Topic of the week (writing task)
Lunch time
(5) Art, DT, ICT – something creative, ideally linked to theme of the week.

This week the theme is inventions and inventors, so as well as getting those juices flowing you'll be building on your knowledge of Victorian inventors that you learnt about in the autumn term of Year 5.

The pack starts each day with a separate Year 5 and Year 6 Maths task. Note that this is different to previous weeks, so make sure you are working on the correct one! After each Maths activity is a writing task, which are followed by a host of ideas for history, art, music and other lessons to keep your children busy! As we stress each week, we realise you might find some of these ideas great, and others not so helpful. You might find other resources online, which is all to the good.

Please continue to send us pictures of the work your children are proud of and want us to see – you can email us via the school office (mark your email 'FAO Miss Bissell / Miss Biggs / Miss Joyce / Mr O'Donovan'). Thanks again for all the wonderful letters and emails we have already received.

Our best wishes to you all

From the Year 5 & 6 team

In your pack each week we try to include:

- Open ended project ideas and research topics
- Writing activities to explore independently or together
- Daily Maths lesson
- Ideas for science experiments
- Games, Art and craft ideas
- Links to other learning resources



Day	Tasks	
Monday	Year 5 Summer Term Week 8, Lesson 1- Understand percentages	
	Video: https://vimeo.com/428001381	
	Worksheet: https://resources.whiterosemaths.com/wp- content/uploads/2020/05/Lesson-1-Understand-percentages-2019.pdf	
	Answers: https://resources.whiterosemaths.com/wp- content/uploads/2020/05/Lesson-1-Answers-Understand-percentages-2019-1.pdf Year 6 Summer Term Week 8, Lesson 1- Solve 2-step equations	
	Video: https://vimeo.com/428002477	
	Worksheet: https://resources.whiterosemaths.com/wp- content/uploads/2020/05/Lesson-1-Solve-two-step-equations-2019.pdf	
	Answers: https://resources.whiterosemaths.com/wp- content/uploads/2020/05/Lesson-1-Answers-Solve-two-step-equations-2019.pdf	
	Topic: Wallace and Gromit, the inventors! Since this week's topic is about inventors and inventions, who better to introduce this than Wallace and Gromit! How many different inventions can you spot in this Wallace and Gromit trailer?	
	https://www.youtube.com/watch?v=4ZrEzkLmgRM	
	Here are some inventions from Wallace and Gromit to watch: Autochef, Cracking Contraption https://www.youtube.com/watch?v=2igRcGxlshA	
	Shopper 13, Cracking Contraptions : https://www.youtube.com/watch?v=kB1dXzHcuQg	
	<image/>	

Tuesday	Maths Year 5 Summer Term Week 8, Lesson 2- Percentages and fractions and decimals
	Video: https://vimeo.com/428001420
	Worksheet: https://resources.whiterosemaths.com/wp- content/uploads/2020/05/Lesson-2-Percentages-as-fractions-and-decimals-2019.pdf
	Answers: https://resources.whiterosemaths.com/wp- content/uploads/2020/05/Lesson-2-Answers-Percentages-as-fractions-and-decimals- 2019.pdf
	Year 6
	Summer Term Week 8, Lesson 2- Find pairs of values
	Video: https://vimeo.com/428002579
	Worksheet: https://resources.whiterosemaths.com/wp- content/uploads/2020/05/Lesson-2-Find-pairs-of-values-2-2019-2.pdf
	Answers: https://resources.whiterosemaths.com/wp- content/uploads/2020/05/Lesson-2-Answers-Find-pairs-of-values-2-2019-1.pdf
	Topic: What makes a good inventor?
	Before watching this next video clip, make a list of what you think is needed to be a good inventor. BBC Teach: What makes a good inventor?
	https://www.bbc.co.uk/teach/class-clips-video/design-and-technology-ks2-what- makes-a-good-inventor/z79mf4j
	Do you need to add anything to your list?
	Writing task: Create an job advert for an inventor. Remember to set out what sort of person you are looking for, what the job is for (i.e. what they will need to invent), what skills they will need and what will be expected of them. You can use the template below as a suggested layout, but feel free to be creative in how you present it. Both Year 5 & 6 classes have read and worked on the book 'Hidden Figures'. Can you remember the job advertisement you created for NASA or NACA?







Topic: Reading task about Temple Grandin

Follow the link to a picture book about Temple Grandin. Continue reading below about her life and what she has had to live through to become a world renowned inventor.

The Girl who thought through pictures – The Story of Dr. Temple Grandin https://www.youtube.com/watch?v=biTyzLCwoNg



Temple Grandin is a U.S. professor of animal **science**. She is one of the most famous and successful people with **autism**. She has devoted her life to reducing the stress of both **animals** and people with autism.

Temple Grandin was born on August 29, 1947, in **Boston**, **Massachusetts**. As a child, Temple was withdrawn and extremely sensitive to touch and sound. She did not talk until she was $3 \frac{1}{2}$ years old. A doctor determined that she had autism. Her parents were told to send her to an institution, a place where people with **disabilities** live together. They refused. Instead, they sent Temple to private schools. Teachers soon realized that she had a brilliant mind.

Grandin often felt nervous at school. Eventually, she became aware that animals and people with autism often have similar reactions to the world. Sights and sounds that are new or overwhelming may frighten them. While in high school, she designed a "squeeze machine" (also called a "hug machine") to calm herself. She modeled it on chutes that hold livestock in place. Versions of her machine are still used in schools for children with autism.

After high school, Grandin attended Franklin Pierce College. She went on to earn a master's degree at Arizona State University and a doctorate at the University of Illinois, both in animal science.

Beginning in 1990, Grandin taught animal science at Colorado State University. She also started a company to design humane livestock handling systems. The systems prevent animals from feeling fear or pain as they are handled and led to slaughter.

Grandin has written or edited several books on the humane treatment of animals. She also has written and spoken widely about her experiences with autism. A television movie about her life, *Temple Grandin*, was released in 2010.

	 Written reflection: Write a s Grandin. Things to mention: Anything remarkable struggles overcoming problems endurance accomplishments personal reflection Extension: Extension: 	5		
	How are you a	nd Dr. Temple Grai are you different?	nain allker How	
	Temple	Both of Us	Me	
		Maths		
Thursday		Year 5		
	Summer Term Week 8, Less	on 4- Adding decimals with places	a different number of decim	al
	Video: https://vimeo.com/42	28001528		
	Worksheet: https://resource content/uploads/2020/05/Le decimal-places-2020.pdf	•		
	Answers: https://resources.v content/uploads/2020/05/Le of-decimal-places-2020.pdf	· · · · ·	cimals-with-a-differen-numbe	er-



Summer Term Week 8, Lesson 4- Miles and kilometres

Video: https://vimeo.com/428002822

Worksheet: https://resources.whiterosemaths.com/wp-content/uploads/2020/05/Lesson-4-Miles-and-kilometres-2019-2.pdf

Answers: https://resources.whiterosemaths.com/wpcontent/uploads/2020/06/Lesson-4-Answers-Miles-and-kilometres-2019.pdf

Topic: Design and invent!

Think back to the Wallace and Gromit videos from Monday or yesterday's inventor Temple Grandin. One thing Wallace is good at is inventing things that can help everyday life. Now it's your turn! We would like you to design an invention of your choice. It could be something that we don't really need, but could make life more luxurious; it could be something you think would would make doing something easier or it could be something that will change the world as we know it!

Writing Task: Start planning and designing your invention.

Option one: Write a <u>brief</u> explanation about your invention. Describe what it is? What does it do, what is it made from etc. Why it is essential in this modern world? How it works? Who benefits from it? Other special features or potential complications.

Draw and label a diagram to go alongside the explanation.

Option two: Please see the booklet attached to this week's planning. This is a more i-depth process to help you research, design and create your wondrous invention.

We would recommend you look at the Art and DT section for some additional ideas and inspiration!

Additional online resources for design: https://pbskids.org/designsquad/projects/ https://invention.si.edu/sparklabs-now-what-invention-game



connectors & phrases...

personal opinion

In my opinion, / In my view, / To my mind, / It strikes me that / It seems to me that As far as I'm concerned, / From my point of view, / Personally, / I strongly believe that

listing advantages & disadvantages

One advantage of / One of the main advantages of / Another advantage of / One benefit of A disadvantage of / One drawback is that / The downside of / The pros and cons of

listing points

Firstly, / First of all, / In the first place, / First and foremost, / To begin with, / To start with, Secondly, / Thirdly, / Finally, / Lastly, / Last but not least,

referring to subjects & giving examples

When it comes to / In terms of / With respect to / Regarding / As far as ... is concerned For instance, / For example, / such as / like / in particular / among others

adding more points

What is more, / In addition, / Furthermore, / Moreover, / Besides, / On top of that, / Additionally, Not only ... but also ... / as well / too / also

adding emphasis

It goes without saying that / Needless to say, / Clearly, / Obviously / There is little doubt that

contrasting points

Yet / Still, / However, / Nevertheless, / Nonetheless, / but / At the same time / Even so, / Although Even though / In spite of the fact that / Despite the fact that / Regardless of the fact that While / On the one hand, / On the other hand / At the same time, / In contrast, / On the contrary,

expressing effect and reason

Thus, / Therefore, / So / Consequently, / As a consequence, / As a result, / For this reason, Due to / Owing to / On account of / Because of / Because of the fact that / Due to the fact that

expressing reality

Actually, / In fact, / As a matter of fact, / The fact of the matter is (that) / The reality is (that)

clarifying or rephrasing

In other words, / To put it another way, / To put it simply, / That is to say,

concluding

All in all, / Taking everything into account, / All things considered, / In conclusion, / As I have said, As has been discussed / To sum up, / In summary, / In general / On the whole, / By and large,

<u>Challenge – Make your invention and send in some pictures or videos of it to school!</u> (of course it can be made out of anything you like!)

Inventors and inventions

Light in Art:

With the invention of neon lighting in 1910 came a new wave of artistry that began to appear in cities across the world.

Art/DT



It became a form of sculpture in the 1960's during the Pop Art Movement and since then has grown in popularity, sometimes taking up whole galleries as installations!



Design Your own Neon Art!



Using gel pens or neon markers draw your own neon inspired artworks. You could create a neon sign, poster or create your own patterns or doodles!



Say Cheese!

Photography revolutionised the world of art! Portraits and landscapes could be captured in a moment. As an art form it has been used to capture unusual shapes and shadows in our environment and tell visual stories. Camera phones can be used to explore this wonderful artistic invention. Can you use a camera and take a photograph of something that inspires your arty skills? Here are some ideas!

https://clickitupanotch.com/photographyfor-kids/

Micro photographs!

Take a picture of a toy, plant or textured surface! What patterns, shapes and shadows can you find?



Tell a visual story!

Use toys, objects and your imagination to tell a story using snapshots or video!



Become an animator! https://www.tate.org.uk/kids/make/arttechnology/be-animator

Challenge: Digital Neon Doodle!

Are you a computer Wizkid? Using a photograph, you have taken create your own neon doodle, street art or signature by Following the link to The Tate! https://www.tate.org.uk/kids/make/arttechnology/make-doodle-gif

Leonardo Da Vinci:

Leonardo Da Vinci was a famous Italian inventor, artist, astronomer and scientist. Many of his ideas have become reality many 100's of years after his death. Learn more about his inspiring ideas below:

https://www.youtube.com/watch?v=Y0_htkvCVpE

Build your own catapult!

Sometime during the 1480's Da Vinci drafted two designs for one of the first catapults, using a leaf spring system: the single arm catapult and the double arm catapult.

https://www.teachengineering.org/sprinkles/view/cub_catapult

Design and Draw your own Invention!



Draw your own invention! What would you invent to help people or the environment? Can you describe how it works and label different parts? Here are some people to inspire you!

Mark Dean



https://www.youtube.com/watch?v=d0zte09 CtpY Dean co-invented the personal computer, dramatically changing the way people work. Mark Dean was born in Jefferson City, Tenn. As a child, he loved building things and did well at school. He graduated at the top of his class from the University of Tennessee. After college, Dean worked for IBM as a computer scientist. He was one of the original inventors of the IBM personal computer and the color PC monitor. He is also responsible for creating the technology that allows devices, such as keyboards, mice, and printers, to be plugged into a computer and communicate with each other. Dean also managed the team that created the one-gigahertz processor chip. Dean continued to further his own education, pursuing a master's degree and eventually a doctorate from Stanford University.

Dr. Patricia Bath.

https://www.youtube.com/watch?v=gcE_QMT BNW4

Bath's laser tool has helped restore or improve vision in patients worldwide. In 1981, Bath invented the surgical tool that made her famous: the Laserphaco Probe, which she continued to perfect and later patented in 1988. The tool was used during eye surgery to correct cataracts, an eye condition that clouds vision and can lead to blindness. Cataracts usually affect older people. Bath's laser tool was more precise, less invasive, and less risky than previous devices, and has been used around the world. Draw and design your own device that could be used to help people with a disability. It could be a bionic limb, A tool to carry or pick up objects, a machine or robot help with day to day activities or to help them travel!

Lonnie G Johnson

Lonnie G Johnson is an African American engineer who worked for NASA's Jet Propulsion Laboratory. During his time at NASA, Johnson worked on the Galileo mission to Jupiter, the Mars Observer project, and the Cassini mission to Saturn. He earned multiple awards from NASA for his spacecraft control systems. But Johnson is possibly best known for inventing the Super Soaker water gun!



Unusual Ideas!



Draw your own Sound Creature

Artists explore the use of technology more and more as new inventions bring new creative ways of expressing art. Follow this link to explore strange and exciting sounds and see what unusual creatures you can design by taking part in this interactive activity!

https://www.tate.org.uk/kids/make/arttechnology/draw-sound-creature

We now have a Dalmain Twitter Art page @dalmain_art for you to share your work with the rest of the school community! We would love to see what you have created to celebrate the gifted artists we have in the school. We will also be sharing ideas and inspirational arts and crafts so don't forget to take a look.

Science	A mixture of websites to explore and learn from.	
	Victorian What did the Victorians ever do for us Image: Ima	
	Some interesting reading with some science activities based on the invention of the penny post - make your own ink, for example! https://www.postalmuseum.org/wp-content/uploads/2017/02/Pop-It-In-The-Post-	
	resource.pdf	
	Sisters in Innovation 20 Women Inventors You Should Know stories; you might want to find out more about some of thom	
	them https://www.amightygirl.com/blog?p=12223	
	Some young inventors ! https://www.youtube.com/watch?v=XiuU1mlFeEc	
	A website devoted to young inventors and their inventions https://www.littleinventors.org/	
	An amazing 'invention'- a Rube Goldberg machine. https://www.youtube.com/watch?v=qybUFnY7Y8w	
	And some more about Rube Goldberg, with a few ideas for making your own Rube Goldberg machine. https://tinkerlab.com/engineering-kids-rube-goldberg- machine/	
R.E.	This week's religion is Judaism.	
	Judaism	
	Watch these short videos to remind yourself of some things you already know and learn some new things about what Jews believe.	
	https://www.bbc.co.uk/bitesize/topics/znwhfg8/articles/zh77vk7 What is Judaism	

	https://www.bbc.co.uk/bitesize/topics/znwhfg8/articles/zn22382 Passover				
	https://www.bbc.co.uk/bitesize/topics/znwhfg8/articles/z4vvjhv Yom Kippur				
	https://www.bbc.co.uk/bitesize/topics/znwhfg8/articles/zj446v4 Hanukkah				
	As we have been looking at different religions each week, we thought it would be interesting to explore the similarities and differences between them. Can you complete the worksheet below?				
	Comparing World Religions				
	Special Book Special Book				
	Place of Worship Place of Worship				
	General Beliefs General Beliefs				
	Important Figure				
	Useful words: Allah wash synagogue prophet Moses skull cap Qur'an 5 pillars Abraham				
	Sabbath prayer Star of David Mecca Rabbi Imam Mosque Torah Muhammad shawl				
Music	'Black made that' - https://www.youtube.com/watch?v=3FCFXht1P0o				
	An inspiring rap about Black Inventors.				
	<u>'Victorian Inventions'</u> : <u>https://www.youtube.com/watch?v=N9g6kWoMHHs</u>				
	The Victorians were great at inventing things!				
	<u>'A short ride in a fast machine' by John Adams</u>				
	A piece of music that takes its inspiration from the sounds of machines.				
	Click on this link to hear all about it. Can you keep in time with the woodblock in the piece?				
	https://www.bbc.co.uk/programmes/articles/3xwJ8Zpzz44vNJIZfqtxbbX/short-ride-in-a-fast- machine-by-john-adams				
	<u>'The Typewriter' by Leroy Anderson</u> - <u>https://www.youtube.com/watch?v=nW8dGwa2zRw</u>				

	A piece of music for a typewriter. The invention of the typewriter meant that people could produce pieces of writing much quicker than before as they no longer needed to write by hand.
	<u>'Concerto for Turntables' by Gabriel Prokofiev</u>
	https://www.bbc.co.uk/programmes/articles/1SxcJK8NnWbKkVKZQCt95m5/concerto-for-turntables and-orchestra-5th-movement-by-gabriel-prokofiev -
	The invention of the turntable or record player revolutionised how people could get access to music. People could buy a record and listen to their favourite music in their homes. Listen to this piece of music featuring turntables.
	'Theremin and instrument you play by not touching it' https://www.youtube.com/watch?v=LYSGTkNtazo
	In 1919 the Russian Leon Theremin invented this instrument by accident when he was working on a gas meter to measure the density of gas. He found that when his hand was near it he heard a high squeal and when it was further away he heard a lower squeal. Now it is played by musicians as an instrument.
	<u>'One moment, one people' - https://www.singup.org/singupathome/one-moment-one-people</u> An inspiring song to learn about working together and making positive connections with each other.
French	1 Write the correct instruction for each picture.
	The second
	prenez mettez
	2 Invent, write out and draw your own sandwich recipe
	2 (coupez)
	2 Invent, write out and draw your own sandwich recipe
	2 Invent, write out and draw your own sandwich recipe coupez mangez Prenez – Take Le pain – the bread Coupez- Cut Le beurre – the butter Mettez -Put Le poulet – the chicken
	Invent, write out and draw your own sandwich recipe coupez mangez Prenez – Take Le pain – the bread Coupez- Cut Le beurre – the butter Mettez -Put Le poulet – the chicken Mangez- Eat Le fromage – the cheese
	2 Invent, write out and draw your own sandwich recipe coupez mangez Prenez – Take Le pain – the bread Coupez- Cut Le beurre – the butter Mettez -Put Le poulet – the chicken Mangez- Eat Le fromage – the cheese La confiture – the jam
	Invent, write out and draw your own sandwich recipe coupez mangez Prenez – Take Le pain – the bread Coupez- Cut Le beurre – the butter Mettez -Put Le poulet – the chicken Mangez- Eat Le fromage – the cheese

	BBC Teach: Pizza party! What new words/phrases did you recognize? What words/phrases did you learn? https://www.youtube.com/watch?v=fAfqrLYqmBg&list=PLcvEcrsF_9zLcyS- rlMhCLei5wA53qr0D&index=8&t=0s
P.E.	Activities from Wendy at Laban
	Wendy has included the links for this week's dance activity below: Upper KS2- Antony Gormley https://vimeo.com/423610139
	Yoga with Adriene
	https://yogawithadriene.com/yoga-for-kids/
	PE with Joe Wicks (Monday, Wednesday and Saturday at 9am)
	Although the live videos are now on 3 days a week. You can still access the other videos from previous weeks on Youtube.
	https://www.youtube.com/channel/UCA1XT0iEJo0TYIRfn6rYQ
Extra Learning	Nature
	Make a mini bug hotel Can you find an old plant pot out in the garden, or an old mug you no longer use? They make brilliant bug hotels! All you have to do is fill your pot or mug with natural materials to transform it into a luxury abode minibeasts will love.
	Hunt around your garden for crackly dry leaves, twigs, hollow stems, dead grass, pine cones and bits of bark and stuff them inside. These are the perfect materials to help create warm, dry spaces that will attract different creepy crawlies. Place pot or mug on its side (so it doesn't fill with rain), leave it in a sheltered corner of the garden and wait for its grateful new residents to move in.