Remote learning - Week 1

Digital Media Work Pack 2021

Year 7

Seymour College

Session One
Learning Intention: We are learning about Camera Angles and Shots. **Success Criteria:** • I can identify and name different Camera Angles and Shots. • I can define the characteristics of different Camera Angles and Shots.
Task: Read the information provided on *Camera Techniques*. Complete 'Camera Angles and Shot Types Identification Activity'.

Session Two
Learning Intention: We are learning about Storyboards. **Success Criteria:** • I can understand the importance of pre-production in filmmaking. • I can develop my own storyboard.
Task: Read the information provided on *From Script to Shot List*. Complete our own storyboard on the template provided and you must use all 12 squares. Storyboard theme: **A Day in the life of a year 7 student during remote learning.**

Notes to Parents/Guardians:

You can support your child to complete their work at home by:

- Encouraging him/her to allocate time for specific subjects
- Reading the material and talking about the ideas with your child (where possible)
- Checking in with your child to ask how he/she is going
- Contacting Teachers if more support or explanation is required

Submission of Work and Feedback:

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CAMERA AND SOUND TECHNIQUES

It is very important to understand how the camera can be used to tell your story most effectively. Once you understand this you can start to shoot footage that has a particular impact on viewers and creates a mood or style that suits your script. This theory applies to all cameras, whether professional cameras to smaller digital camcorders to smartphones and tablets.

You can watch our short video on Camera Techniques to understand these techniques better.

There are three main things to understand when it comes to camera technique:

1 SHOTS
2 ANGLES
3 MOVEMENT

And there is one rule that operates across all of filmmaking and photography:

THE RULE OF THIRDS

This isn't actually a rule, just a guiding idea that arises from the fact that the eye prefers to look at things that are divided into threes. Rather than putting everything in the centre of the frame, it looks and feels better to the viewer for them to be in one or two of the thirds.

A great time to use the rule of thirds is when you are shooting an interview. Rather than having the eyes of your subject right in the middle of the frame – they should fall into the top/side third, with the subject looking into the empty space on the other side. This feels more natural to the viewer.

SHOTS

Using a variety of different shots will make your film more interesting and give you the chance to manipulate the way your audience feels. Here are some of the main shots that a filmmaker can use to create different effects in their film.

EXTREME WIDE SHOTS (EWS)

ACT TO SHOW THE SETTING FOR THE FILM

WIDE SHOTS (WS)

SHOW THE ENTIRE PERSON OR AREA. THEY'RE
GREAT FOR ESTABLISHING THE SCENE AND ALLOW
ROOM FOR THE CHARACTERS TO HAVE SOME ACTION

MEDIUM SHOTS (MS)

FRAME THE SUBJECT FROM THE WAIST UP.
THIS IS THE MOST COMMON SHOT AND ALLOWS
FOR HAND GESTURES AND MOTION

MEDIUM CLOSE UPS (MCU)

SHOW THE SUBJECT IN MORE DETAIL AND USUALLY
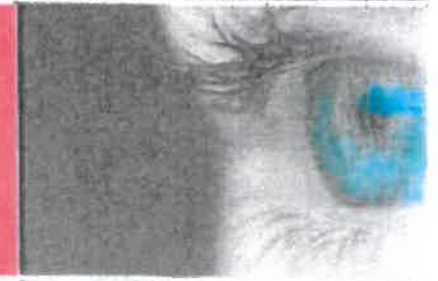INCLUDE THE SHOULDERS AND HEAD OF A SUBJECT

CLOSE UPS (CU)

SHOW A PARTICULAR PART OF YOUR SUBJECT –
USUALLY THEIR HEAD OR FACE

EXTREME CLOSE UPS (ECU)

SHOW ONE SMALL DETAIL SUCH AS AN EYE
OR A SINGLE FLOWER

OVER THE SHOULDER (OSS)

ARE SHOT FROM BEHIND THE PERSON TOWARDS
THEIR SUBJECT. THIS IS A GREAT TECHNIQUE TO
USE FOR INTERVIEWS AND CONVERSATIONS.

ANGLES

The difference between a shot and an angle is that **THE SHOT** is used to demonstrate different aspects of the characters and setting, while **ANGLES** are used to position the viewer so that they can understand the relationships between the characters.

BIRD'S EYE ANGLE

IS AN ANGLE THAT LOOKS DIRECTLY DOWN UPON A SCENE.
THIS ANGLE IS OFTEN USED AS AN ESTABLISHING SHOT,
ALONG WITH AN EXTREME LONG SHOT, TO ESTABLISH SETTING

HIGH ANGLE

IS A CAMERA ANGLE THAT LOOKS DOWN UPON A SUBJECT.
A CHARACTER SHOT WITH A HIGH ANGLE WILL LOOK VULNERABLE
OR SMALL. THESE ANGLES ARE OFTEN USED TO DEMONSTRATE
TO THE AUDIENCE A PERSPECTIVE OF A PARTICULAR CHARACTER
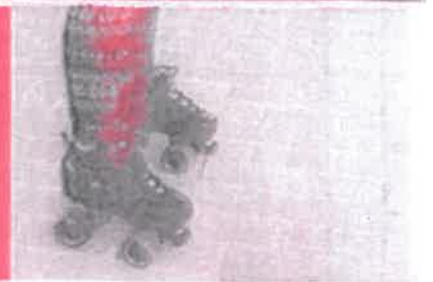
EYE LEVEL ANGLE

PUTS THE AUDIENCE ON AN EQUAL FOOTING WITH THE
CHARACTER/S. THIS IS THE MOST COMMONLY USED ANGLE
AS IT ALLOWS THE VIEWERS TO FEEL COMFORTABLE WITH
THE CHARACTERS

LOW ANGLE

IS A CAMERA ANGLE THAT LOOKS UP AT A CHARACTER. THIS MAKES
A CHARACTER LOOK MORE POWERFUL. THIS CAN MAKE THE AUDIENCE
FEEL VULNERABLE AND SMALL BY LOOKING UP AT THE CHARACTER.
THIS CAN HELP THE RESPONDER FEEL EMPATHY FOR THE CHARACTER

MOVEMENT

Filmmakers also use camera movement to shape meaning.

Tracking shots – any shot where the camera moves alongside the people or objects it is recording. The camera can be mounted on something with wheels or handheld while the camera operator walks or shoots from a moving vehicle.
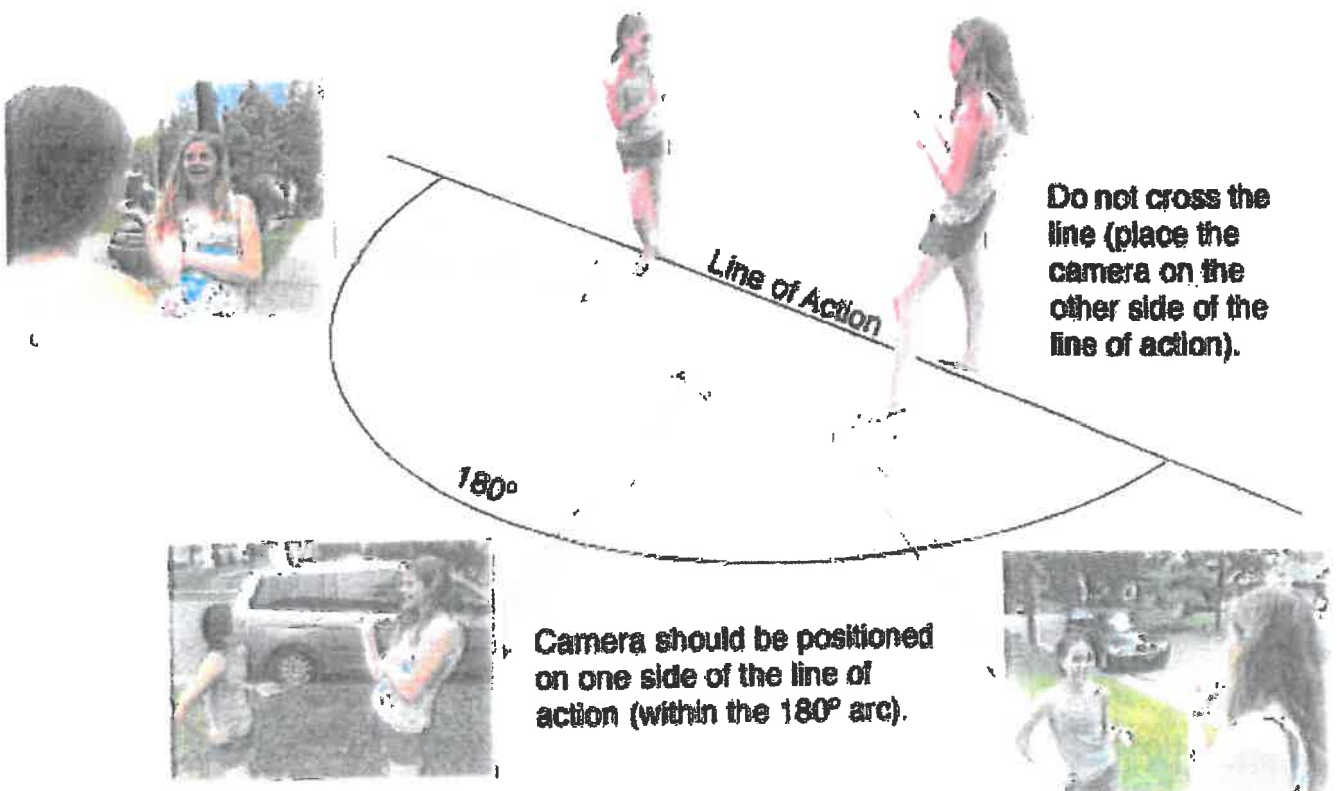
Panning – is used to give the viewer a panoramic view of a set or setting. The camera moves on the horizontal plane left or right. This can be used to establish a scene.

Tilting – the camera moves up or down on the vertical plane and this can show a viewer how high or deep something is.

The best way to become familiar with these is to try shooting them yourself. Use the worksheet to tick off each shot as you take it.

SOMETHING ELSE TO REMEMBER: THE 180 DEGREE RULE

THE 180° RULE IS A CINEMATOGRAPHY GUIDELINE THAT STATES THAT TWO CHARACTERS IN A SCENE SHOULD MAINTAIN THE SAME LEFT/RIGHT RELATIONSHIP TO ONE ANOTHER TO AVOID CONFUSING THE VIEWER. IF THE CAMERA PASSES OVER THE INVISIBLE AXIS CONNECTING THE TWO SUBJECTS, IT IS CALLED 'CROSSING THE LINE'.

Line of Action

180°

Do not cross the line (place the camera on the other side of the line of action).

Camera should be positioned on one side of the line of action (within the 180° arc).

Camera Angles and Camera Shots

Use the words in the bank below to name each of the camera angles and camera shots. Once you have correctly matched each of the terms with its image, explain what effects the angle/ shot has on the scene (eg: "This shot draws the viewers attention to a particulat aspect of the scene and shows the viewer extra detail and emotion.")

> Low Angle   High Angle   Bird's-eye-view
>
> Close Up   Wide Shot/ Establishing Shot   Medium Shot
>
> Extreme Close Up   Eye Level   Long Shot

Type of Shot / Angle:

Effect of the Shot /Angle

Type of Shot / Angle:

Effect of the Shot /Angle

Type of Shot / Angle:
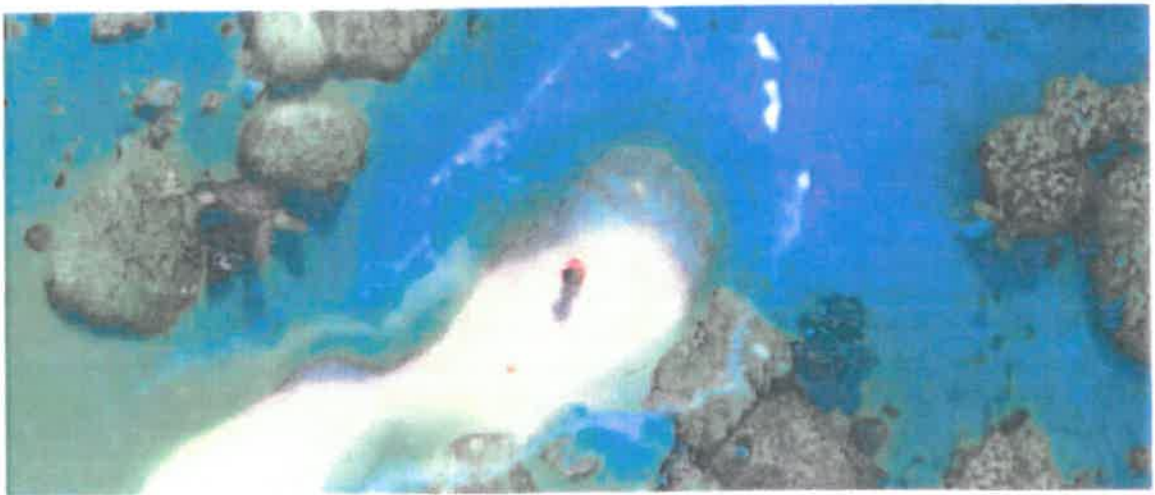

Effect of the Shot /Angle

Type of Shot / Angle:

Effect of the Shot /Angle

Type of Shot / Angle:

Effect of the Shot /Angle

Type of Shot/ Angle

Effect of the shot / Angle

Type of Shot/ Angle

Effect of the shot / Angle

Type of Shot/ Angle

Effect of the shot / Angle

Type of Shot/ Angle

Effect of the shot / Angle

FROM SCRIPT TO SHOT LIST

As described above, all the preparations are made for the shoot during pre-production. One of the most important elements of this is creating a final script and shot list. It is often a good idea to create storyboards to decide on the shots for the shot list.

Here is an example for you to have a look at. This is only one way this script could be made, a different director might make it look very different on screen. How would you do it?

BIRTHDAY SURPRISE

1.   INT. LOUNGE-ROOM   DAY

John comes into the lounge-room he is clearly in a hurry.
He slams the door behind him. Mary hears the door slam
and comes to the doorway, she is about to enter but she
sees John is up to something. She watches John as he
hides an envelope inside a book on the book-shelf. Mary
enters. John quickly picks up a magazine as she enters
and sits down.

                        JOHN
              Oh, hi.

                        MARY
              Hi. What you up to?

                        JOHN
              Nothing, just reading.

                        MARY
              (referring to the upside down
              magazine)
              Upside down?

                        JOHN
              (he puts down the magazine)
              Yeah, well just looking at the
              pictures. Anyway ... I better
              get ready... I'm meeting some
              friends for dinner.

John leaves the room. Mary waits until she hears the
door slam. She pulls out the book and shakes it the
envelope falls out on the carpet. John's pokes his head
around the corner, watching her. Mary stares at the
envelope. Finally she can't resist, she opens it, very
carefully. As she turns the last flap, she discovers a
small card with "caught you" written on it. John comes
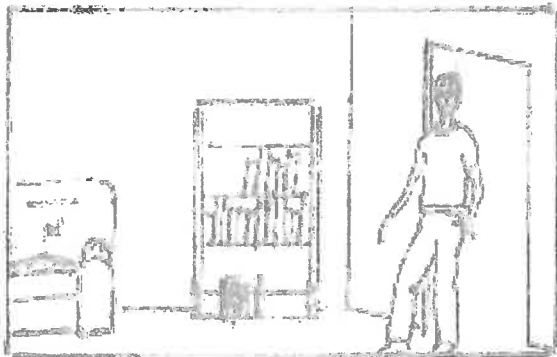back in laughing.

              John brings a package out from behind his back.

                        JOHN
                   Happy birthday, I didn't
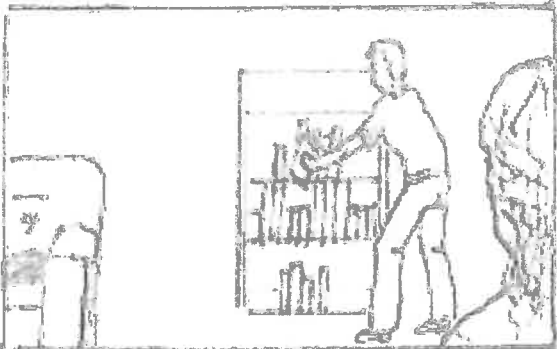   forget.

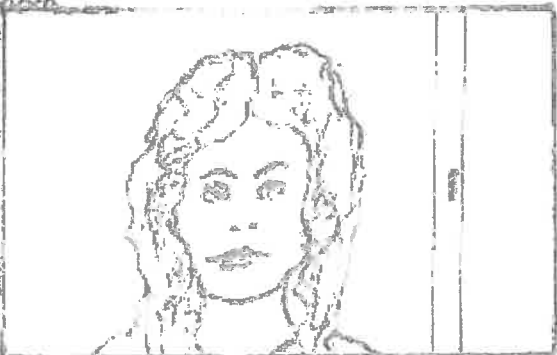Mary can't help but smile.

1. WS - John comes in front door

2. MCU - Mary peeks around the corner
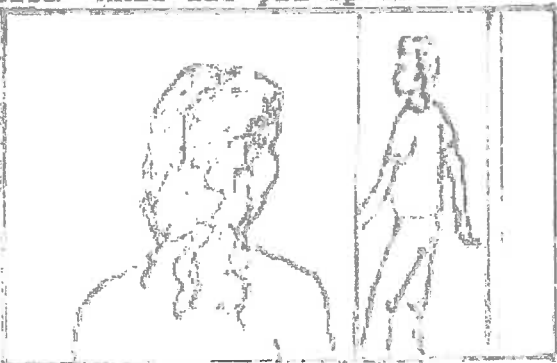
3. OTS XWS POV - John takes out a book

4. CU - John puts an envelope in the book

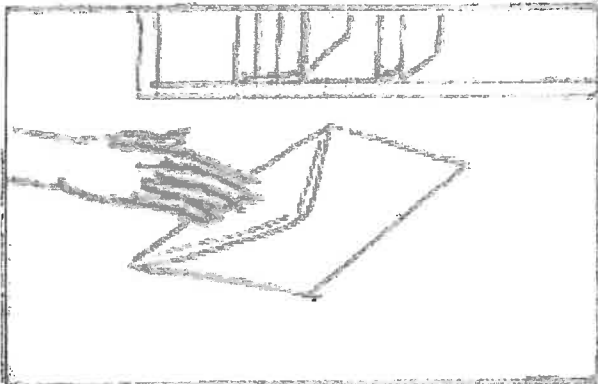5. MS-MCU - Mary walks in the room "What are you up to ...

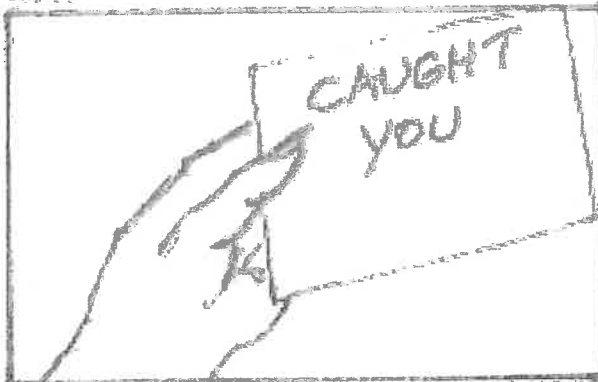6. MS - John sits on couch reading magazine upside down.

7. MS OTS John leaves

8. WS Mary looks at the bookcase and takes the book.
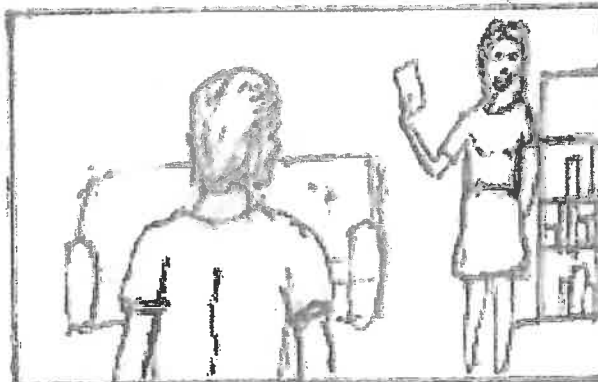
9. CU - envelope falls on the floor

10. CU - Mary looks at the envelope.

11. CU - Mary opens the envelope.

12. MCU John pokes his head around the corner

13. MRS OTS John to Mary - "Very funny"

14. MS - John shows Mary the present. "Happy Birthday"

15. MCU Mary smiles.

16. MCU John smiles.

BIRTHDAY SURPRISE - SHOTLIST

Shot	Size	Description
1	WS	John comes in the front door and slams it.
2	MCU	Mary peeks her head around the corner
3	OTS MWS POV	The back of Mary's head and the room as she watches John takes out a book
4	CU	John puts an envelope in the book
5	MS - MCU	Mary walks in the room
6	MS	John turns around notices Mary and pulls a magazine off the shelf and sits down on the armchair.
7	MS OTS	John exits
8	MS OTS	Mary looks at the books
9	CU	envelope falls on the floor
10	CU	Mary looks at the envelope
11	CU	Mary opens the envelope and discovers card with "Caught You"
12	MCU	John pokes his head around the corner
13	MWS OTS	John walks in, Mary says "Very funny"
14	MS	John brings present out from behind his back "Happy Birthday"
15	MCU	Mary smiles
16	MCU	John smiles

Using the storyboard template below, begin your layout for your own script. Remember that you cannot use more than twelve boards (squares) when designing your storyboard. You also do not need to use all twelve if you do not need to.
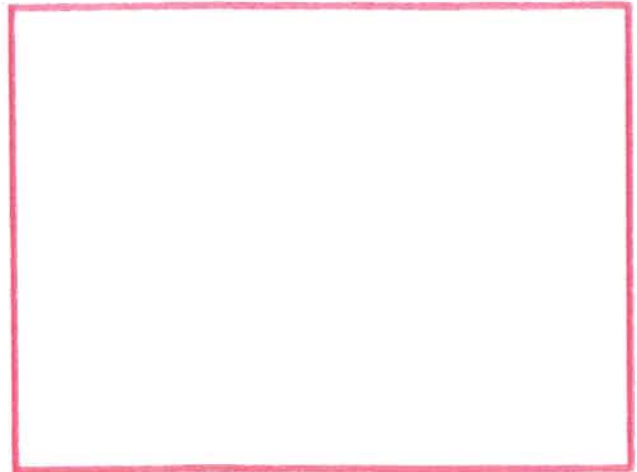
Action/Notes

_____

_____

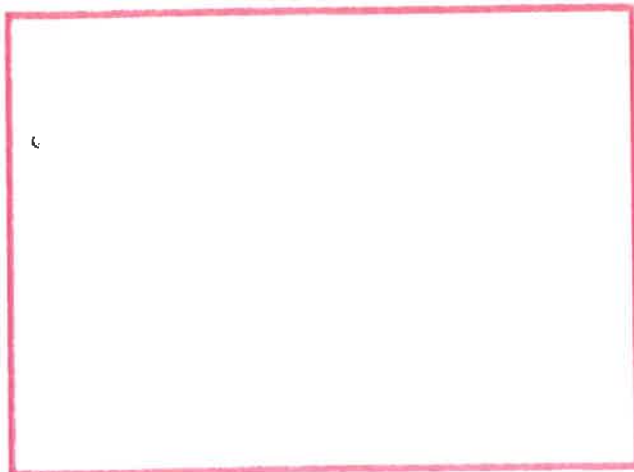_____

_____

Action/Notes
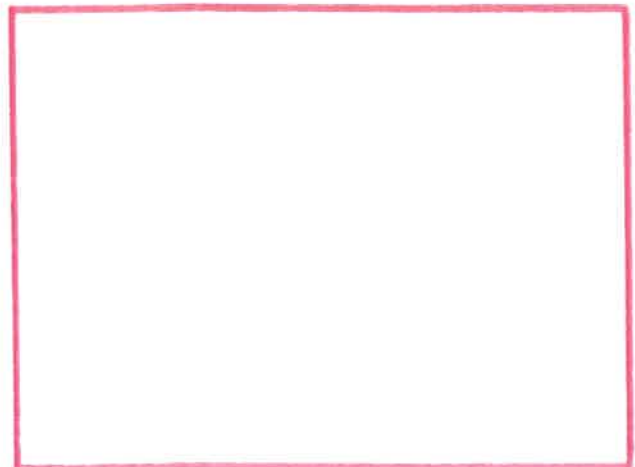
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Action/Notes

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Action/Notes

Action/Notes

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Action/Notes

Action/Notes

Action/Notes

Action/Notes

Digital Media Work Pack 2021

Year 7

Seymour College

Session One

Learning Intention:

We are learning about Narratives

Success Criteria:

- I can identify and name different elements of narrative.
- I can define the importance of targeted audiences.

Task:

Narrative PowerPoint slides.

Read the information and answer the questions on the 'Respond' slides in the blank slides that follow those the respond slides.

Session Two

Learning Intention:

We are learning about Stereotypes.

Success Criteria:

- I can identify different stereotypes.
- I can analyse different stereotypes.

Task:

Stereotypes PowerPoint slides.

Read the information and complete the different stereotype analysis slides.

Notes to Parents/Guardians:

You can support your child to complete their work at home by:

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Narrative

Ever since we could communicate, we have been telling stories.

1

Rewind

- Early films were quite different from what we understand as movies today. Not only were hey silent, only accompanied by the music being played in the cinema, but due to technological limits, they were also much shorter. The earliest films only averaged about two minutes.

- Georges Méliès created the 14 minute long Le Voyage dans la Lune (A Trip to the Moon) in 1902 that audience's expectation of films was altered forever.

- Another of the early films in history, and in fact the world's first full-length feature, was made in Australia. The story of the Kelly Gang. It was also one of the first films banned in Australia, as it was seen to glorify outlaws and criminals.

2

The elements of narrative

Story elements are the substance and content of a film, they are what make up the story of the movie. These include:

- Opening sequence
- Character
- Storyline
- Setting
- Cause and effect
- Structuring of time
- Point of view
- Closing sequence

3

The elements of narrative

Production elements are the physical construction and are how the story elements are communicated. These include:

- Camera
- Audio
- Acting
- mise en scene ('put in the scene', referring to all the theatrical elements necessary in composing a scene to be filmed.
- Visual composition
- Lighting
- editing

4

The elements of narrative

- Movies also need to be created with specific audiences in mind. Depending on the audience, the director will use production elements in certain ways in order to engage them and gain their interest in the story.

- If production elements are not suited for an audience, the audience wont be interested and the story elements wont be communicated properly.

5

Respond

Consider the following questions:

1. How might a film director use music if they were trying to interest an audience of 50-year-olds?
2. What about an audience of 16-year-olds?
3. Name some songs or styles of music that would suit each group.
4. Compare the two. Why would the music suit the 50-year-olds and not the 16-ear-olds?
5. Why would the music suit the 16-years-olds and not the 50-year-olds?

6
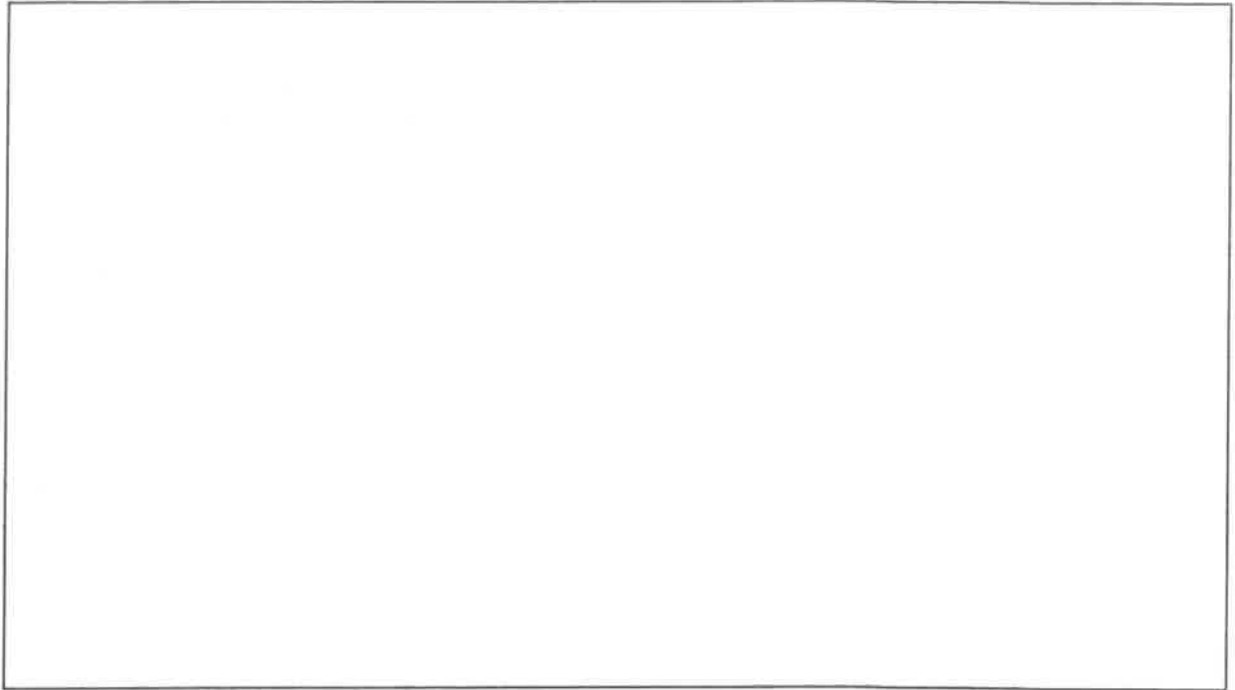
7

The elements of narrative

Where an audience watches a movie is also very important. This is called the reception context.

8

Reception context

- The process of receiving a message and how the location, time and emotions of the audience impact on how it is received and how meaning is made.

9

10

The elements of narrative

- Since production elements communicate story elements, interference with production elements could mean that audiences miss out on story elements. Missing out on important details could potentially reduce the audience enjoyment and engagement of films as they miss out on key pieces of information.

- What happens when you are watching a movie at school and an announcement comes over or someone starts talking loudly? – you miss out on part of the movie, could be a key piece of dialogue that explains something vital. This can make you not enjoy the film as it does not make sense.

11

Respond

1. What are the benefits of watching a movie in the cinema?
2. What are the things that increase the experience?
3. How could they assist in getting a better understanding of the movie?
4. What are the disadvantages of watching a movie in the cinema? What are things that interfere with the experience? How could they inhibit the understanding of the movie?
5. How might watching a movie in class be different from watching it in the cinema? Or watching a movie on a mobile device?
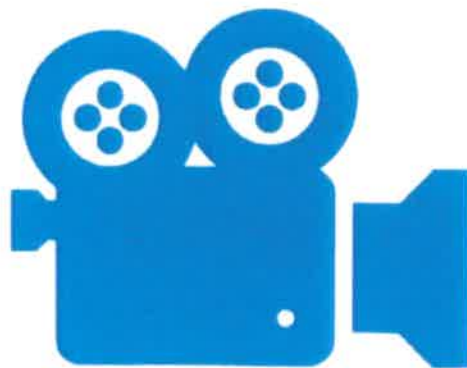
12
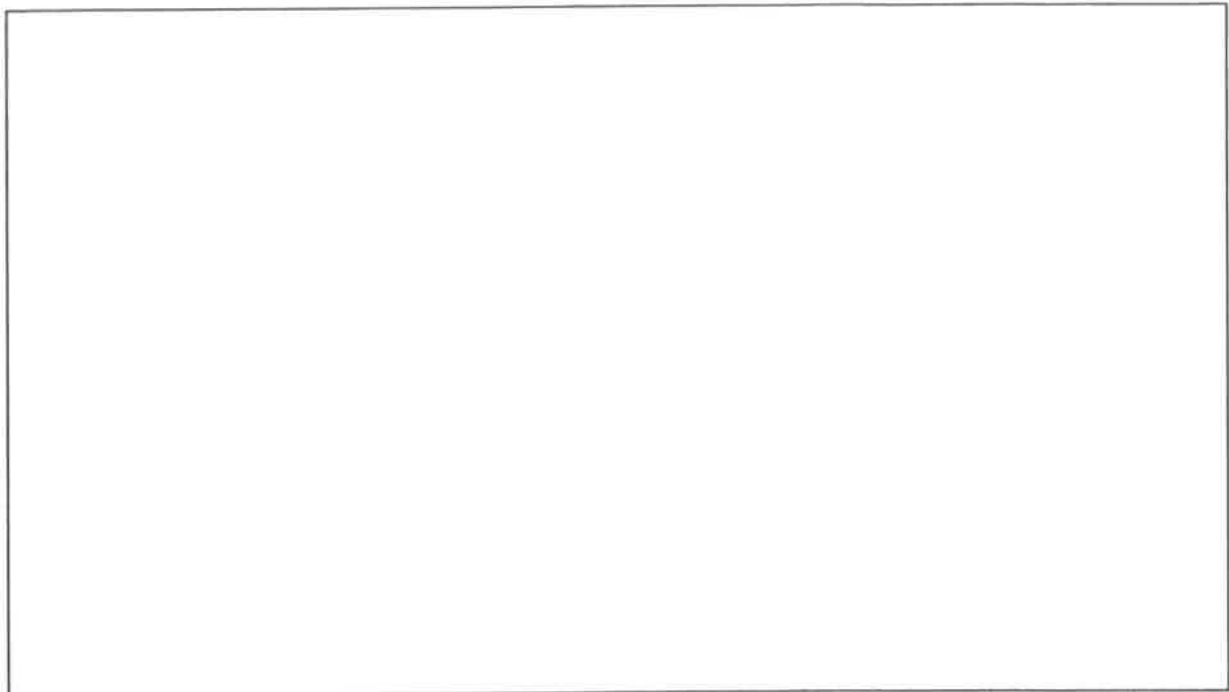
13

Story Elements

The opening sequence	Character
Storyline	Setting
Cause and effect	Structuring of time
Point of view	The closing sequence

14

The opening sequence

- The opening sequence is the first part of the movie where the story, characters and setting are being set up and introduced.
- It is where the reality of the movie is communicated to the audience.
- It is also where the possible storylines are being set up, and expectations are created by the audience.
- For instance, if a character will have supernatural abilities later in the movie, they will be suggested in the opening sequence, so the audience has something to look forward to, as they expect to see them being used later in the film.

15

Character

- In most movies, there is a protagonist: main character on whom the movies is centred. It is this character's actions that push the story along.
- There is also usually a character attempting to stop the protagonist from achieving their goals. This character is known as the antagonist.

16

Respond

- Think of a well-known fairy tale.
- Who is the protagonist?
- What do they need to do?
- Who is the antagonist?
- Why do they want to stop the protagonist form succeeding?

17

18

Storyline

- The main storyline is the idea that begins at the start of the movie and continues to the end. There can also be subplots. These are used to give us more information about the main character or to create tension as they interact with the main storyline.

- In looking for Alibrandi, the main storyline is whether or not Josie Alibrandi will reconcile with the two aspects of her life in order to find her identity. In North by Northwest, the main storyline is whether or not Roger Thornhill will be able to stay alive.

19

Setting

- The setting refers to the physical location – where the movie is set. This can impact upon the characters and plot, as the setting may prove to be an obstacle that the main character must overcome in order to achieve their goals, or it could be a symbolic reflection of their state of mind. Setting also refers to the time of year a movie is set in. This plays an important part in telling the audience what to expect from the storyline. So, if an Australian movie is set in January, an audience would expect Summer holidays and hot temperatures.

20

Cause and effect

- A movie is a series of causes and effects. It is what pushes the story forwards. If there was no cause and effect, no conflict or no problem to solve, the movie would be very dull.

- This chain reaction can be based on events within a scene, such as cause: the room is dark = effect: the character turns on a light. This of course can bring about other effects, such as if the light being turned on reveals something unpleasant or scary in the room that the character was otherwise unaware of.

21

Cause and effect

- Cause and effect can also underpin the character's actions over the course of a movie, motivating them complete a larger goal. In the wizard of ox (1939), Dorothy wants to get home, so that influences everything she does throughout the movie.

22

11

Respond

Think of the story of the three little pigs.

1. Write down how the process of cause and effect operates in this fairy tale.

2. How does one event lead to another?

23

24

Structuring of time

The magic of movies is that they don't have to follow the normal flow of time. There can be flashbacks and flash-forwards. Time can be expanded. Time can also be contracted.

25

Expanded Time

- The lengthening of time so it takes more time than it would in reality to pass.

Contracted Time

- The shortening of time so it takes less time than it would in reality to pass.

26

Structuring of time

Communicated through the production of elements of editing, structuring of time allows the director to create a narrative that make sense and is engaging to the audience.

27

Flashback

- A flashback is a shift in time to an event that will occur should the current narrative but that pertains to the unfolding action in some way. It can be used to remind us of key information at a crucial time of the movie.

Flash-Forward

- A flash-forward is a shift in time to an event that will occur should the current course be followed by particular character. This is often used to explore a 'what if?' scenario.
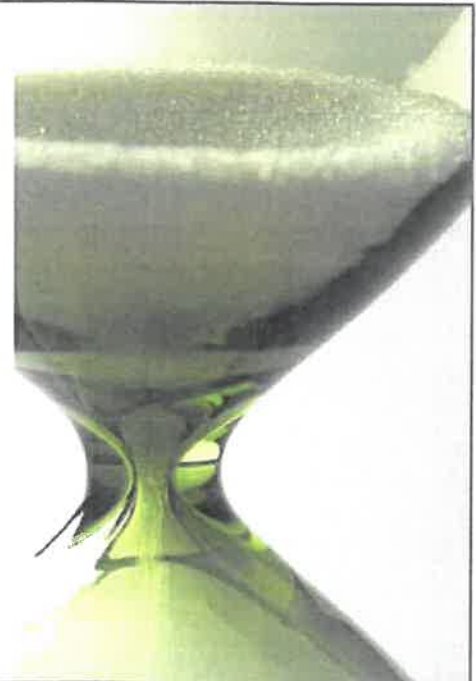
28

Expansion of time

An expansion of time can be used to slow time down. This can be done through the use of slow motion. It can also be achieved by adding cutaways to detail more information. These incidents seem to take a lot longer than usual.

29

Point of view

- Point of view refers to the perspective from the narrative is told. Another way of thinking of this is by contemplating whose side the audience is on. It can be indicated by a voice-over or by the audience only knowing as much as the main character.

- The point of view can change, however, from scene to scene to make the movie more exciting. For example, the protagonist is playing cards with another character, but unbeknownst to the protagonist under the table is a bomb. If the perspective is restricted, and we only know as much as the protagonist, we won't know that the bomb is about to explode. If it does, we are just as surprised as the main character.

- If, on the other hand, the point of view is unrestricted and we are informed both that there is a bomb and that the protagonist is unaware, we, as an audience, will be urging the protagonist to either notice the bomb or leave the room. In both cases we are engaged with the narrative, but for very different reasons.

30

Closing Sequence

- The closing sequence is where all the storylines are wrapped up, the main questions are answered and the audience is able to leave to leave the movie with all their main expectations resolved and, to some extent, left wondering what would have occurred if the narrative was to continue.

- Closing sequences can also leave the audience with storylines that are unresolved, making us question what may happen after the events of the movie. This can be done either to engage us beyond the boundaries of the movie or to suggest the possibility of a sequel.

MOVIE
CLIP
HD

31

Production Elements

The production elements of a film narrative include different types of camera shots, camera angles and movements, audio and sound elements, the mise-en-scène, performance and lighting.

32

Respond

Let's consider shot sizes and when each kind of shot is appropriate. What type of shot and angle would you use for the introduction of the following characters? Justify your decisions.

- An angry policeman
- A sad toddler
- A happy circus clown
- A businesswoman walking to work
- An artist painting a picture
- A footballer running onto the MCG
- The prime minister giving a speech
- A trapped prisoner
- A vicious monster
- An elderly person crossing the road

33

34

Audio

Audio, also referred to as sound, can refer to dialogue, sound effects and music. Audio can also be defined as being diegetic or non-diegetic.

35

Diegetic

Audio elements that exist within the reality or space of the narrative.

Non-diegetic

Audio elements that exist outside the reality or space of the narrative.

36

Audio

- If both the characters within the movie and the audience can hear it, it is diegetic and is used to further create the reality of the movie.

- If only the audience can hear it, it's non-diegetic and is used to communicate information. Usual uses of non-diegetic audio are a voice-over, a narrator or an internal monologue, or to indicate the mood or emotion within a scene through the use of a soundtrack.

37

Stereotypes

Stereotypes are an oversimplified version of a representation. These can be often quite negative as they don't give a detailed, accurate portrayal of the truth.

Stereotypes operate on many assumptions or assumed beliefs that a society makes towards a certain social group. They can be highly dangerous and cause a significant amount of damage not only to how a group is perceived by others, but also to how a group perceives itself.

1

Stereotypes and audience

- Through stereotypes, audiences can gain meanings of social groups that may have a basis in reality, but are not applicable to all the people in that group.
- If we take the stereotype that all teenagers are lazy and untrustworthy, audiences who are not teenagers could potentially discriminate towards them, based upon an understanding built on stereotypical representations. However, teenagers who are constantly exposed to these stereotypes could begin to perceive themselves in a negative way and believe that the stereotype is what society expects from them. This, too, could have a negative impact on audiences.

2

Representation of Gender

- Your task is to explore through popular representations and stereotypes on gender found in media.
- The following will be extreme stereotypes rather than realistic representations.
- By exploring these and discussing how they are used will allow you to understand the purpose that an author has in using one of these characters.

3

Representation of men

- They way men are represented in the media depends on the medium and the genre that is being constructed. There are some representations that seem to exist only on TV and others that seem to only exist within the world of movies. All representations are created for a specific purpose and for a certain audience. The following are just a few common representations of men, how they are usually characterised, where they are usually found and how they are usually constructed.
- This is by no means a definitive collection of stereotypes; however, these are the building blocks of many others.

4

The Tradesman (Tradie) **an example**

- **Aspects of character:** usually found at a construction site, builder, plumber, Gardner, to fix something. Not fussed by much.
- **Usually found:** TV – home improvement and renovation shows
- Audio: values in Aussie rock bands such as AC/DC. Dialogue is straight to the point.
- **Symbolic:** work belt, fluro clothing, boots, hard hat
- **Image:**

5

The Hopeless Husband/Boyfriend

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

6

The Action Hero

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

7

The Evil Mastermind

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

8

The Trusted Expert of Society (doctor, scientist, judge, lawyer etc)

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

9

The Father Figure

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

10

The Nerd

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

11

The Stud

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

12

Representations of Women

- When we watch or listen to the media we are constantly faced with portrayals of women. They are 'representations' of the women and not the women themselves.
- In advertising, women are used to market products that are perceived to be interesting to them, and certain values and stereotypes are shown in these advertisements. Cleaning products and cosmetics are an example of such products.
- Throughout history the portrayal of women in the media has changed to reflect changing attitudes and social values. The representation of women in the media is different in different cultures and countries, depending on what the particular society's opinions are.

13

The Housewife

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

14

The Single Woman

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

15

The Working Mother

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

16

The Powerful Woman

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

17

The Female Superhero

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

18

The Queen Bee

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

19

The Girl Next Door

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

20

The Damsel in Distress

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

21

The Femme Fatale

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

22

The Bimbo

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

23

The Butch Female

- **Aspects of character:**

- **Usually found:**

- **Audio:**

- **Symbolic:**

- **Image:**

24

EXTRA INFORMATION

Why could nobody hear Daniel Miller's screams?

What do you think was the scariest part of his ordeal?

If you were in his position, what would you do to survive?

'They told me that the bucket had landed on a rock.'
How do you think this saved his life?

DICTIONARY CORNER

Find the following words in a dictionary, and write down their definition.

stabilise:

submerged:

pelvis:

hypothermia:

Reporter's Notebook

INCHES FROM DEATH!

Can you answer these questions about the story, using as much detail as possible:

WHAT has happened? **WHERE** did

it take place? **WHO** was

involved?

WHEN did it happen?

Heartbreak of the Whales
Hundreds die on New Zealand beach

More than 300 pilot whales have died after a mass beaching at Farewell Spit on New Zealand's south Island.

The colossal creatures began landing on the beach on the morning of Friday 10 February. Hundreds of tourists, residents and conservationists tried to help the stricken whales, dousing them with buckets of water to keep them cool, and trying to refloat them.

"You could hear the sound of splashing, of blowholes being cleared, of sighing," said Cheree Morrison, a journalist who was one of the first to visit the scene. "The young ones were the worst. Crying is the only way to describe it."

Thankfully, volunteers managed to refloat many of the whales, but there was further heartbreak on Saturday when hundreds more whales landed on the beach. Authorities say that this must be a different pod, as those that had been refloated had been tagged, and had not returned.

Volunteers formed human chains in the water to stop more whales coming in, and soaked blankets in water to cool them off. One helper said they saw shark bites in one of the carcasses.

On Sunday 12 February, their rescue efforts seemed to be paying off. Thankfully, 200 of the majestic beasts swam back out to sea, whilst another 100 were refloated by the tireless volunteers.

Farewell Spit is well known as a 'whale trap'. The sliver of sand arches like a hook into the Tasman Sea, and whales find it difficult to get away once they navigate into its shallow waters.

Why does this happen?

There are various reasons why these whales strand themselves.

1. *They could have chased prey too far inshore.*
2. *They may be protecting a sick whale.*
3. *They could be trying to escape a predator.*
4. *They could have been infected by parasites which affect the brain's ability to stay on course.*

Once on dry land, they often die from dehydration; as a result of collapsing under their own weight; or drowning when high tide covers their blowholes.

Pilot whales

Pilot whales are dark black in colour. Males can grow up to 25 feet and weight 3-tonnes. Females are about half of this size. They are sociable creatures and can gather in pods of several hundred. They can be found all over the world, in cooler and more tropical waters. They are known to be incredibly intelligent creatures, and usually stay in deeper waters. They eat squid, octopus, herring and small fish.

Like all whales and dolphins, pilots are mammals, meaning they breathe air through a blowhole.

Farewell Spit
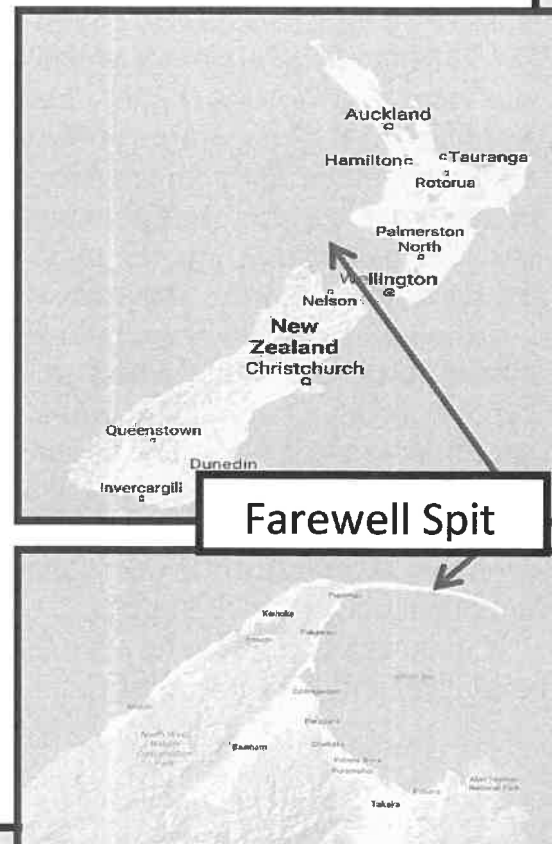
INCHES FROM DEATH!

Australian famer tells of five-hour ordeal

Farmer Daniel Miller had a very lucky escape after being pinned underneath a 3-tonne digger. The incident occurred at his remote farm, about 180 miles north of Sydney in the Australian state of New South Wales. Mr Miller was working on a waterhole on 7 February 2017, when things started to go horribly wrong. Here is his story, in his own words, taken from a BBC radio interview.

I was working on a small dam wall. Cosmetic stuff – moving stones and putting plants in. I took a couple of scoops of mud from the dam which was about 5 metres wide. The excavator slipped on the wall. I tried to stabilise it by swinging the bucket around, but as I did this, the machine toppled into the dam. I went into the water first, and then the machine came over the top of me.

I was completely submerged under the water, and I felt the bar of the roll cage land across my back. I thought 'this is scary, this is serious'. I crawled and scraped to try and get from under it whilst it slowly sunk into the mud, but my pelvis was pinned down. I thrust my arms into the mud and did a push up to put my head up as far as I could to gasp for air.

I was able to get my chin out of the water, but I was very stuck. The machine was still running, there was no-one around and the situation was looking very serious, so I started to scream for help, but there was no-one to hear my screams, and nobody would hear me over the machine. After about ten minutes, I realised I had to calm down, as it would be a long time before anyone came looking for me.

I've been in stressful positions before, so I said to myself, 'OK. If you stay calm, you've got a chance.' I talked to myself, assessed the situation and thought the best option at the time was to dig a hole with my hands under my pelvis. My plan was to make a tunnel. So I put my hands between my legs and started to push, but it turned out to be bad idea, and I slipped further into the mud. My chin went under the water – only my nose and eyes were above the surface.

I thought I was never going to get out. I thought of my wife and my kids coming home and finding me dead. That's what kept me going. I couldn't do that to them. Eventually, a neighbour heard my cries. It had taken about five hours. The emergency services soon arrived, and a team of firefighters took about twenty minutes to dig me out. They told me that the bucket had landed on a rock. That probably saved my life. I was taken to hospital and treated for hypothermia and back injuries.

I'm just so grateful to be alive. I am very happy to be back at home and alive, and with my family.

Seymour College

English Work Pack 2021
Year 7 – Term 4
Coraline

Learning Intention	Success Criteria
We are learning to understand and respond to visual and multimodal text.	I can: • Answer questions which demonstrate my understanding of a text • Plan my writing • Structure my writing in complete sentences or paragraphs • Select and use evidence from a text to show my understanding • Use appropriate language conventions

Instructions to Students:

Week 1

Lesson	Focus
1	Viewing the film **OR** understanding the story using plot summaries
2	Understanding the story – Movie Questions
3	Real life survival story – R2L activity
4	Character Profiles
5	Understanding Characters – Put yourself in Coraline's shoes

Week 2

Lesson	Focus
1	Traditional character roles in fairy-tales and fantasy
2	Extended response: how does Coraline's view of her parents change by the end of the film?
3	Extended response: how does Coraline's view of her parents change by the end of the film?
4	Real life survival story – R2L activity
5	Creative writing

Notes to Parents/Guardians:

You can support your child to complete their work at home by:

- Encouraging them to allocate time for specific subjects
- Reading the material and talking about the ideas with your child (where possible)
- Checking in with your child to ask how they are going
- Contacting Teachers if more support or explanation is required

Submission of Work and Feedback:

Students can upload work to Compass where access is available. Photos of handwritten tasks may also be uploaded. Students can also mail hard copies of their work back to the school in the supplied envelope.

Students and parents can continue to communicate with Teachers via Compass email. Any questions should be directed to the school email: seymour.co@education.vic.gov.au

Lesson 1

	Approx. Time	**Learning Intention:** We are learning view and comprehend visual and multimodal text **Success Criteria:** I can understand the events of a film I can take notes	Completed
First	15 minutes	15 minutes of independent reading. Summarise your reading in one paragraph **OR** 3 dot points.	
Next		Watch the film 'Coraline'. If you can't access it via youtube (https://www.youtube.com/watch?v=JL2PB7NJ090) or a streaming service (Netfilx), read the story summary below.	
Last	5 minutes.	Note 3 main events in the film and email your teacher what you come up with.	

Coraline – Movie Summary

Coraline Jones is an only child whose parents work from home as freelance writers. The family decide to sell their house and move to a 150-year old apartment in a remote area.

Coraline hated the apartment, called "The Pink Palace" Apartment. The neighbours look weird and creepy. And the only people she can find to play with are a skinny black cat and a strange boy named Wybourn Lovet. Coraline didn't like Wybourne because he talked too much. But Wybourne was kind and gave Coraline an old doll that looked just like her. He has one too, that looks just like him, on a chair in his room.

Coraline also has a neighbour who likes to play magic named Mr. Bobinsky, and a pair of old women who were once famous artists, Miriam and April. Coraline's days were very boring.

She hates when both of her parents are too busy with their writing to spend time with her. She always looked for ways to disturb her parents. Finally, to keep her busy, her father asked Coraline to record all the contents of their apartment and report it back to him.

Because the weather is too rainy to go outdoors, Coraline works on her father's orders. Accidentally, she found a small door. Her mother found the key, but strangely behind the door, there was nothing but a brick wall.

That night, Coraline saw a mouse running through her room. She ran after the mouse and found that it had slipped into the small door she had found that morning. Behind the door, Coraline discovered that the stone wall had disappeared and changed into a colourful tunnel. Curious, Coraline followed the tunnel and found another house on the other side.

The house was just like the old and ugly apartment she lived in, only better. Coraline found a beautiful young woman cooking in the kitchen. At first glance, the woman resembled her mother, but she was different somehow. The woman, seeing Coraline, said she was her 'other mother'. A better mother than before. She cooked delicious food and 'other Father' played music they could all dance to. Coraline was very happy.

when he woke up however, she was no longer in the nice house, but back in 'the pink palace apartment with her too busy parents.

Coraline decides that she would feel happier if she could be with other Father and Mother on the other side of the small door forever. There, she always gets what she wants. Her mother always cooks good food, her father always plays. Her strange and mysterious neighbours turn out to be fun and always entertaining people.

There is only one thing that distinguishes them all from the original people, their eyes are made of buttons. Including Wybourne.

When Coraline was alone, she found the key to the locked door and raced back through the tunnel to be with her 'other mother and father' in their bright, fun world. Coraline wanted to be with them forever.

The 'other mother' agreed on one condition; Coraline had to be willing to replace her eyes with buttons, just as they had. Coraline was scared and refused. She decided to go back to her real parents after all. But now, she couldn't escape and her request to leave made the other mother angry. Suddenly, 'other mother' changes into something resembling a human spider. Other Mother locked Coraline in a mirror to reflect on her mistakes until she was willing to accept the stitches in her eyes.

In the mirror, Coraline met three ghosts of children who claimed to be victims of the Other Mother. Her real name was Beldam and she was not sweet and fun as she had seemed. Beldam had taken the eyes of the children and bound them to her world, their sous remaining trapped and miserable forever.

The only way to rescue the souls and save herself is for Coraline to find the stolen eyeballs of the children, hidden by Beldam within the house.

Silent Wybourne manages to free Coraline from the mirror and helps her to the small door to escape. Coraline returns to her house only to discover her parents have been kidnapped by Beldam.

Looking for anyone who might be able to help her, Coraline talks to her neighbours Miriam and April who give her a ring-like object. The ring shows the original form of something that has been bewitched.

Coraline returns to the 'Other World' and makes a deal with Beldam; if Coraline is able to find the eyeballs of the children and her parents in one night, Beldam must free them all. But if she

fails, Coraline must stay in the 'other' world forever and give over her eyes for buttons.

Coraline succeeds in her task but Beldam tries to go back on their deal. Coraline locks Beldam into the other world and throws away the key so that no other children can get lost and trapped.

Coraline realises that even though her family is not perfect, she loves her parents and they love her. The family hold a garden party for their new neighbours and suddenly, the old apartment doesn't look gloomy anymore it is full of fun and people who care for each other.

Lesson 2

	Approx. Time	**Learning Intention:** we are learning to understand and analyse visual and multimodal texts **Success Criteria:**	Completed

		I can answer the set questions to show my understanding of Coraline.	
First	15 minutes	15 minutes of independent reading. Summarise your reading in one paragraph **OR** 3 dot points.	
Next	5 minutes	Read through the questions listed below	
Then	30 minutes	Complete as many questions as you can based on your viewing of the film or understanding of the summary.	
Last	5 minutes	Email your teacher your completed responses.	

Coraline Movie questions

1. What is the name of the place where Coraline's family moved into?

_____

2. Where does the little mouse direct Coraline during the night?

_____

3. Describe Bobinsky's apartment. Is it clean or dirty? What does it tell us about Bobinsky as a character?

_____
_____
_____
_____
_____

4. What did the mice ask Bobinsky to say to Coraline?

_____
_____
_____

5. What happens to Miss April's dead dogs?

_____

6. Describe Coraline's garden. How is it shaped? What does it say about the people who live in the apartments?

_____
_____
_____

7. What did Coraline find when she went through the door for the 3rd time?

_____
_____

8. What is special about the cat when he's in the other world?

_____

9. What does the 'other mother' tell Coraline she needs to do to stay with her other family?

_____

10. What happened to the three little ghosts?

_____
_____
_____
_____

11. What happens if Coraline finds the ghosts' eyes?

_____
_____
_____
_____

12. Where does the Beldam hide Coraline's parents?

_____
_____

13. Coraline challenges the other mother, Beldam, to a finding game. What does she need to find?

(2 things)

- _____ • _____

14. Where is everything hidden?

- _____ • _____

- _____ • _____

15. What does Coraline's real mother give to her?

_____
_____

16. Who saves Coraline from Beldam's hand?

_____

17. Where does Coraline hide the key to the other door?

_____

	Approx. Time	**Learning Intention: We are learning to read and understand non-fiction text** **Success Criteria:** I can read independently I can answer questions which demonstrate my understanding	Completed
First	15 minutes	15 minutes of independent reading. Summarise your reading in one paragraph **OR** 3 dot points.	
Next	20 minutes	Read the article 'Inches from Death'. You'll find a copy of this in your hard copy work pack or in your class resources.	
Then	20	Answer the questions in relation to the article	
Last	5 minutes	Email your teacher something you remember from the text.	

Lessons 4

	Approx. Time	**Learning Intention:** We are learning to understand and analyse a visual or multimodal text **Success Criteria:** I can name and describe the characters within Coraline	Completed
First		15 minutes of independent reading. Summarise your reading in one paragraph **OR** 3 dot points.	
Next		Choose between 2 and 4 characters from the film and develop a visual brainstorm or profile. Include the following or challenge yourself by adding some extra ideas of your own: *Find or draw a picture *Describe how they behave and what kind of person they are *Try and explain how they change, if at all, throughout the film *Describe 1 or 2 of the main scenes they feature in. You can present your work in a hard copy poster, within a word document including an image or within a power-point or publisher program	
Last		Send your work through to your teacher.	

Lessons 5

	Approx. Time	**Learning Intention:** We are learning to understand and analyse a visual or multimodal text **Success Criteria:** I can plan my writing I can show my understanding of the characters in Coraline within my writing	Completed
First	15 minutes	15 minutes of independent reading. Summarise your reading in one paragraph **OR** 3 dot points.	
Next	40 minutes	1. Imagine you are Coraline, before she finds the secret door. Write a postcard to your friends in your old town, describing the new house and your new life here. Who have you met? What have you seen? What plans have you made? What are your hopes for your future in this place? *Things you could mention: – the house – the woods – Wybie – the cat – Miss Spink and Miss Forcible, and their dogs – Mr Bobinksy* 2. Draw an image for the front of the postcard based on one or more of these	
Last	5 minutes	Email your work through to your teacher.	

Week 2

Lesson 1

	Approx. Time	**Learning Intention:** We are learning to understand the roles of characters within traditional and modern fairy-tales **Success Criteria:** I can add to the 'character roles' table below I can discuss my understanding of characters within Coraline	Completed
First	15 minutes	15 minutes of independent reading. Summarise your reading in one paragraph **OR** 3 dot points.	
Next	5 minutes	Read the Table below. It explains the different character roles within traditional fairy-tales.	
Then	15-25 minutes	Choose two of the character roles within the table and fill in the boxes with examples from traditional fairy tales and Coraline. Challenge yourself by completing the examples for all the character roles.	
Last	5 minutes	Email your completed worksheet to your teacher.	

Character Roles

These are the characters we see appearing again and again within fairy-tale and fantasy stories. Can you think of characters within stories or films you know that fit these descriptions? What about the characters from Coraline? How do they fulfil these roles?

Role	Description	Example from Fairy-tales	Character from Coraline
Hero	This is the main character in the story that the audience supports. Generally they act for good, though they may have challenges to face as the story develops.		
Dispatcher	This person sets the hero a challenge or sends them on a quest. There may be more than one dispatcher in a story.		
Helper	This character might guide the hero throughout the story, or they might appear just at the moment they are most needed to save the hero from trouble.		
Donor	The donor gives something to the hero to help them along their way (hint: several characters help Coraline as the story develops...)		
Princess	In traditional tales the princess is the character who needs to be rescued by the hero (hint: the role of the 'princess' doesn't have to be played by a girl...)		
Villain	This character works against the hero, trying to stop them from completing their quest. Generally their intentions are bad, although they may try to trick other characters into thinking they are good.		

	Approx. Time	Learning Intention: We are learning to understand and analyse a visual or multimodal text **Success Criteria:** I can plan my writing I can draft and edit my work I can use evidence from the text to support my ideas.	Completed
First	15 minutes	15 minutes of independent reading. Summarise your reading in one paragraph **OR** 3 dot points.	
Next	5 minutes	Think about how Coraline changes from the beginning to the end of the film. Note between 2 and 4 changes in her behavior, attitude or thoughts.	
Then	40 minutes	Develop an extended response which addresses the question; 'how does Coraline's view of her parents change by the end of the film?' • Use the ideas you noted in your first step. • Begin by brainstorming 3 dot points with examples from the film • Turn these ideas into a paragraph using complete, correctly formed sentences. • Challenge yourself by creating a separate paragraph for each of your ideas.	
Last	5 minutes	Email your completed response to your teacher.	

Lesson 4

	Approx. Time	Learning Intention: We are learning to read and understand non-fiction text **Success Criteria:** I can read independently I can answer questions which demonstrate my understanding	Completed
First	15 minutes	15 minutes of independent reading. Summarise your reading in one paragraph **OR** 3 dot points.	
Next	20 minutes	Read the article 'Heartbreak of the whales'. You'll find a copy of this in your hard copy work pack or in your class resources.	
Then	20	Answer the questions in relation to the article	
Last	5 minutes	Email your teacher something you remember from the text.	

Lesson 10

	Approx. Time	**Learning Intention:** **Success Criteria:**	Completed
First	15 minutes	15 minutes of independent reading. Summarise your reading in one paragraph **OR** 3 dot points.	
Next	20 minutes	Plan your own story that could serve as a warning to 'be careful what you wish for' like in Coraline. Are there ever ways you wish things could be different in your own life? How could you twist these so that things don't quite work out how you plan? What might happen if you really never had to go to bed or eat your dinner? Would it really be fun if your parents never told you what to do?	
Then	20 minutes	Plot your story to show how things would track from ; Beginning-----------Middle-----------End Challenge yourself by turning your plan and story plot into a completed story.	
Last	5 minutes	Email your work through to your teacher.	

Humanities Work Pack 2020
Year 7 – History: Ancient Australia

Seymour College

Learning Intention	Success Criteria
• Understand how we learn about Ancient Australian History • Understand the significance of Language, Beliefs and the Aboriginal Flag	▪ I can distinguish between a primary and secondary source ▪ I can conduct research about Aboriginal language groups ▪ I can explain the symbolism behind the Aboriginal flag ▪ I can describe 'The Dreaming' - the belief system of Aboriginal Australians

LESSON 1: 'OUT OF AFRICA' THEORY

Instructions:

- Brainstorm: What do you think the '<u>Out of Africa</u>' theory is referring to? What might it mean? Make a prediction before doing any reading or watching any videos about the topic
- Read pg. 222 of your textbook and watch the following video:
  https://www.youtube.com/watch?v=8183HPmA2_I
- Explain the 'Out of Africa' theory in your own words – what does it suggest?
- Answer questions 2, 3 and 4 on pg. 223

Why do you think some of the dates in the textbook may differ from those in a video found on Youtube?

LESSON 2: EVIDENCE OF ANCIENT AUSTRALIA

Instructions:

- Brainstorm: How do we know about Ancient Australian history? Think about what clues or objects might have been found to help us learn about Ancient Australian life. Make a list of as many different information sources as possible (Hint: rock paintings may be one!)
- Read pg. 232-235 of your textbook and make a list of as many information sources as you can see on these pages. List these as either primary or secondary sources in a table like below:

Primary Sources	Secondary Sources

- In your own words, explain the difference between a 'primary' and a 'secondary' source. You have learnt about this in Term Two 😊 Try using the internet or the textbook if you are unsure.
- Watch the following video:
  https://www.youtube.com/watch?v=nt7LrZsU4Fo
- Explain who 'Mungo Man' and 'Mungo Lady' are and how they can help us learn about Ancient Australian history.
- Explain why some people may be upset that Mungo Man's bones were used for research.

LESSON 3: ABORIGINAL LANGUAGE GROUPS

Instructions:

- Read pg. 226 and look at Source 1. Explain what you see on the map.
- How many different Aboriginal languages are there?
- There is an online version of this map here: https://aiatsis.gov.au/explore/map-indigenous-australia which you may like to use as you can zoom in.
- Pick one of the language groups on the map and conduct some research about them. Learn one word in their language and write it down. Try to find out some facts about that language group also.

LESSON 4: INDIGENOUS FLAGS

Instructions:

- Without looking at the textbook, draw a picture of the Australian Aboriginal Flag. No cheating!!!
- Open up to pg. 228 and compare your drawing to the actual flag. How accurate was your drawing? Now draw the real thing and label the meaning of the colours (Black, Yellow and Red). These can be found in the textbook written above the flag.
- Look at Source 4 and 5 – Who are the Torres Strait Islander people? You may want to use the internet to conduct further research here.
- Draw the Torres Strait Islander map and label the meaning of the colours.
- Complete Question 5 from pg. 229

LESSON 5: CULTURE AND BELIEFS

Instructions:

- Read pg. 230-231.
- Copy down the diagram of 'The Dreaming' in Source 1.
- Explain what the Dreaming means.
- Complete Questions 1-4.

EXTENSION: Research an Aboriginal 'creation story' and explain it in your own words. Draw an image that represents this story.

COLLAGE PART 1

Collage, from the term **French**: *coller*, "to glue" or "to stick together") is a technique of art creation, primarily used in the visual arts, but in music too. Artworks result from an assemblage (a collection of items) of different forms, thus creating a new artistic image.

A **collage** may sometimes include **magazine and newspaper clippings, ribbons, paint, bits of coloured or handmade papers, portions of other artwork or texts, photographs and other found objects**, glued to a piece of paper or canvas. The origins of collage can be traced back hundreds of years, but this technique made a dramatic reappearance in the early 20th century as an art form.

The term *collage* was coined by both **Georges Braque** and **Pablo Picasso** in the beginning of the 20th century when **collage** became a distinctive part of modern art movement **Cubism**.

Cubism was a revolutionary new approach to representing reality invented in around 1907–08 by artists Pablo Picasso and Georges Braque. They brought different views of subjects (usually objects or figures) together in the same picture, resulting in paintings that appear fragmented and abstracted.

One of the famous **Cubist** portraits painted by **Picasso** has been made with collage, using different kinds of paper (coloured tissue paper, newspaper and magazine fragments).

Tete d'une Femme Lisant (Head of a Woman Reading), 1953

Tete d'une Femme Lisant (Head of a Woman Reading), 1953 by Pablo Picasso

YOU ARE TO **PRODUCE YOUR OWN CUBIST INSPIRED PORTRAIT (FACE) COLLAGE**.

YOU WILL NEED SCISSORS AND GLUE AND A RANGE OF NEWSPAPERS, MAGAZINES, COLOURED PAPER THAT YOU ARE ALLOWED TO CUT UP.

LOOK AT THE EXAMPLES ON THE FOLLOWING PAGES FOR INSPIRATION. YOUR WORK AS MINIMUM SHOULD BE PRODUCE ON AN A4 SIZED PIECE OF PAPER. IT CAN BE STRANGE, ODD AND HUMOROUS.
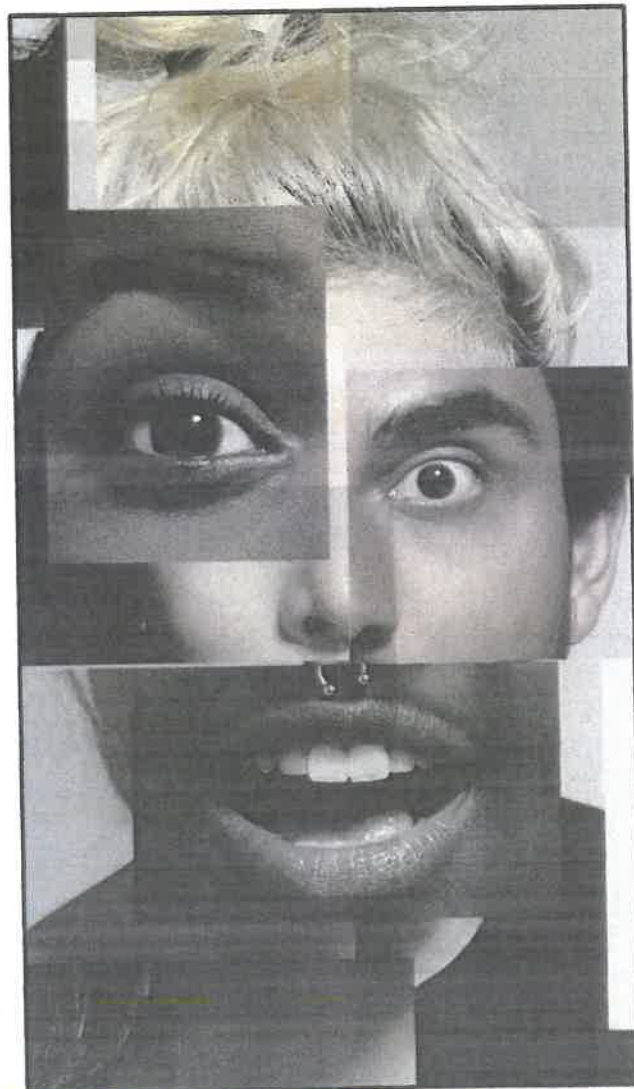
Year 7 PE Scavenger Hunt

Directions: First find what you are looking for. Next, you will complete that task. For example, "find something to jump over" that could be a stick on the ground. After you've found it, you would run and jump over it. Once you complete the task, you can mark it off and keep going.

Find & Do the Activities Below

Find something to jump over _____

Find something to crawl under _____

Find something to throw overhand _____

Find something to climb _____

Find something to kick high in the air _____

Find something to run a lap around _____

Find something to balance on _____

Find something to knock over with a ball _____

Find something to catch (example- balls, insects, bugs) _____

Find something to ride for 10 minutes _____

Find something to balance on your head as you walk to the end of your drive way and back_____

Find something to skip around _____

See if you can find the following and then complete the exercise:

A bug in the grass _____ *Do 8 jumping jacks*

A "Y" shaped twig or branch _____ *Do 30 seconds of high knees*

A 3 leaf clover _____ *Do 5 push ups*

Something that flies _____ *Do 10 sit ups*

Something that has a smell/scent _____ *Do 45 seconds of mountain climbers*

Something that can break _____ *Hold a plank for 30 seconds*

3 different kind of leaves _____ *Do 6 squats*

Something that can climb trees _____ *Jump for 30 seconds*

Extra challenge:
Can you race to zero?

Race to Zero

Start on 300 points

30 Seconds star jumps — Subtract your score from 300

45 Seconds Squats — Subtract your score from previous score

45 Seconds Sit up — Subtract your score from previous score

Repeat until you reach zero!

Memory prompt
```
  1̇0̇3̇
-  45
   58
```
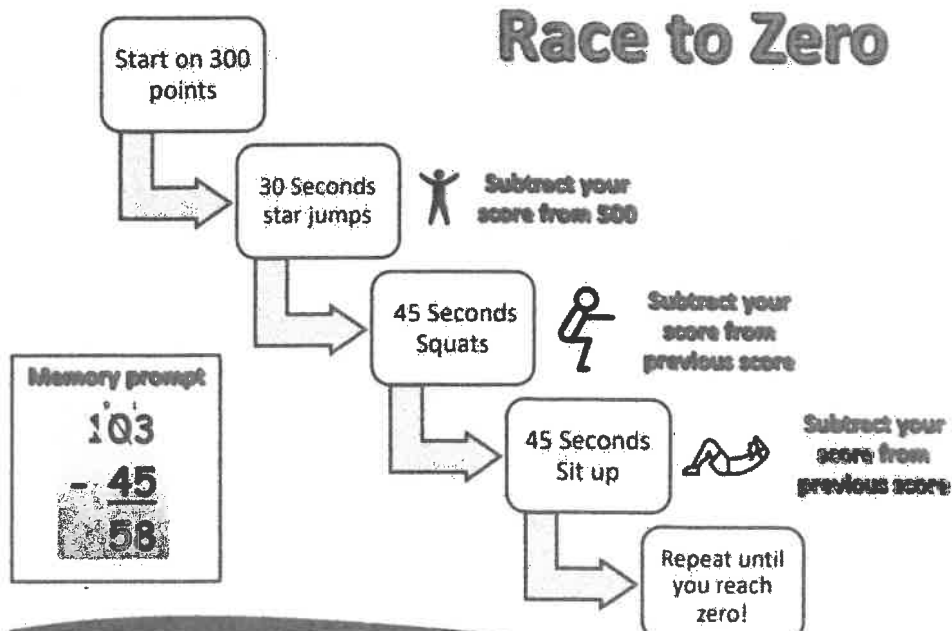
Bunny Jumps — 60 Second Challenge

How many bunny jumps over a bench or stool can you complete in 60 seconds?

Place two hands on the bench or stool and jump side to side making sure both feet go over the bench. To make it easier step over.

Achieve Gold — 80 bunny jumps
Achieve Silver — 60 bunny jumps
Achieve Bronze — 40 bunny jumps

Climb the Mountain — 60 Second Challenge

How many mountain climbers can you complete in 60 seconds?

Make sure you bring your knees up as you move, so do not just flick your legs up and down.

Achieve Gold — 50 mountain climbers
Achieve Silver — 30 mountain climbers
Achieve Bronze — 20 mountain climbers

Star Jumps — 60 Second Challenge

How many star jumps can you complete in 60 seconds?

Make sure you clap your hands above your head and bring your feet together.

Achieve Gold — 60 star jumps
Achieve Silver — 45 star jumps
Achieve Bronze — 30 star jumps

The Plank — 60 Second Challenge

Can you hold the 'plank' position for 60 seconds?

Make sure you keep your bottom down and back straight. Keep your forearms on the floor.

Achieve Gold — 60 seconds or more
Achieve Silver — 45 seconds or more
Achieve Bronze — 30 seconds or more

Fast Feet — 60 Second Challenge

How many times can you dribble a ball around a marker and back in 60 seconds?

Place down a starting marker and then a second marker five steps away. Each time you dribble the ball around the marker and back you score one point.

Achieve Gold — 22 dribbles around the marker and back
Achieve Silver — 16 dribbles around the marker and back
Achieve Bronze — 10 dribbles around a marker and back

Speed Bounce — 60 Second Challenge

How many times can you bounce over a pillow in 60 seconds?

Both feet must leap over the pillow for the jump to count.

Achieve Gold — 70 bounces
Achieve Silver — 50 bounces
Achieve Bronze — 30 bounces

Tuck In, Tuck Out — 60 Second Challenge

How many times can you tuck your legs up to your chest and then extend them out in 60 seconds?
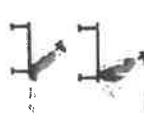
Achieve Gold — 40 tuck in, tuck outs
Achieve Silver — 30 tuck in, tuck outs
Achieve Bronze — 15 tuck in, tuck outs

Squat Jumps — 60 Second Challenge

How many squat jumps can you perform in 60 seconds?

Stand behind a line and jump forward, perform a squat and repeat.

Achieve Gold — 35 squat jumps
Achieve Silver — 25 squat jumps
Achieve Bronze — 10 squat jumps

Complete P.E.   YOUTH SPORT TRUST

Woodwork Work Pack 2020

Year 7 Woodwork

Seymour College

Learning Intention	Success Criteria
To understand how to use tools safely and correctly	• I know what workshop safety is. • I can identify various tools

Instructions to Students:

1. Complete the various tasks on hand tools and safety. This will help you to be able to correctly identify tools as well as improve your literacy.

Notes to Parents/Guardians:

You can support your child to complete their woodwork tasks work at home by:

- Encouraging them to allocate time for specific subjects
- Reading the material and talking about the ideas with your child (where possible)
- Checking in with your child to ask how they are going
- Contacting Teachers if more support or explanation is required

Notes to Parents/Guardians:

Submission of Work and Feedback:

Students can upload work to Compass where access is available. Photos of handwritten tasks may also be uploaded. In the event of an ongoing interruption to schooling, Seymour College will advise families of the best methods for communication.

Students and parents can continue to communicate with Teachers via Compass email. Any questions should be directed to the school email: seymour.co@education.vic.gov.au

EQUIPMENT AND TOOLS

V.Ryan © 2000 - 2011

On behalf of The World Association of Technology Teachers

W.A.T.T.

World Association of Technology Teachers

This exercise can be printed and used by teachers and students. It is recommended that you view the website (www.technologystudent.com) before attempting the design sheet.

EQUIPMENT AND TOOLS

Name each of the tools / equipment shown below.

Describe a typical use of each.

NAME: _____

TYPICAL USE: _____

_____

_____

_____

NAME: _____

TYPICAL USE: _____

_____

_____

_____

NAME: _____

TYPICAL USE: _____

_____

_____

_____
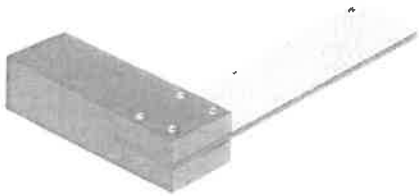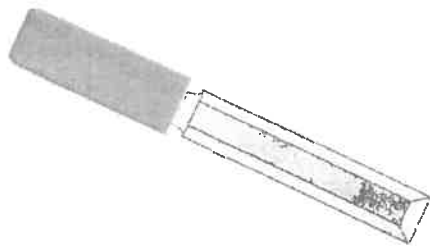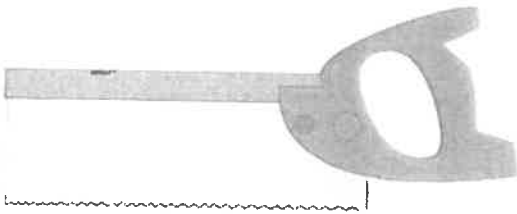
NAME: _____

TYPICAL USE: _____

_____

_____

_____
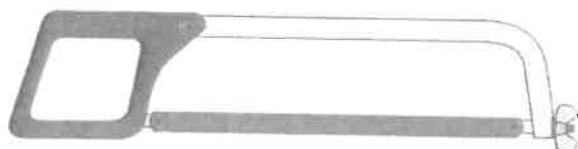
NAME: _____

TYPICAL USE: _____

_____

_____

_____

HAND TOOLS VOCABULARY MATCHING WORKSHEET 2

Choose the correct words from the list below and write them under the correct pictures
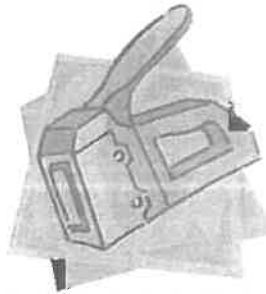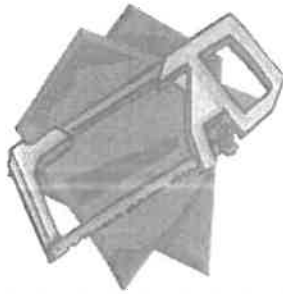
WORD LIST

- adjustable wrench
- drill
- sledgehammer
- hacksaw
- drill bits
- paint roller
- paintbrush
- file
- chainsaw
- chisel
- glass cutter
- grinding machine
- toolbox
- staple gun
- soldering iron
- blowtorch
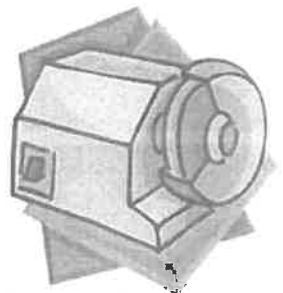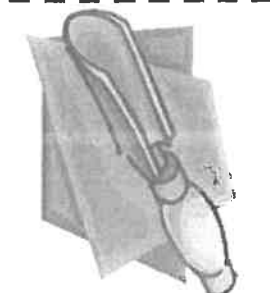
HAND TOOLS VOCABULARY MATCHING WORKSHEET 1

Choose the correct words from the list below and write them under the correct pictures

WORD LIST

- hammer
- screwdriver
- wrench
- pliers
- tape measure
- screws
- nails
- axe
- shovel
- nuts
- trowel
- pincers
- mallet
- saw
- ladder
- clamp
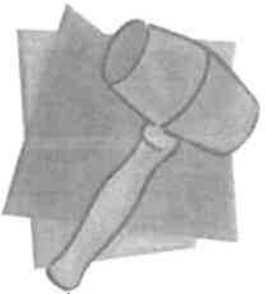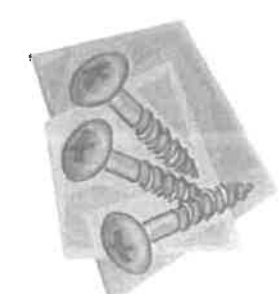
HAND TOOLS UNSCRAMBLE THE WORDS 1

Unscramble the hand tools vocabulary and number the pictures
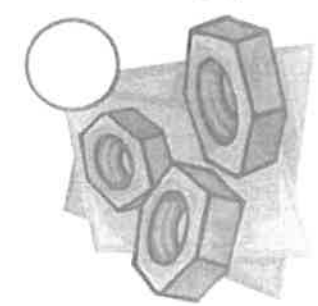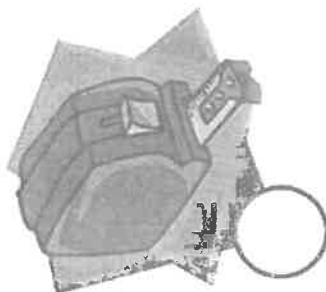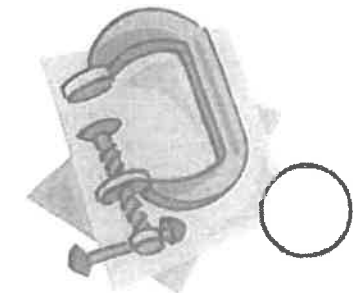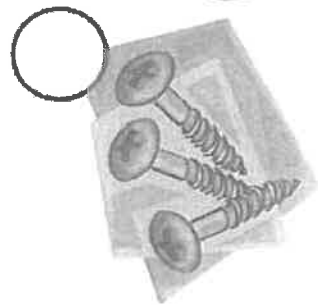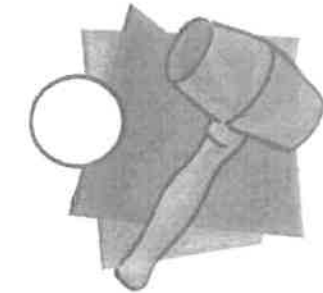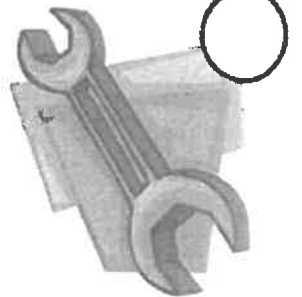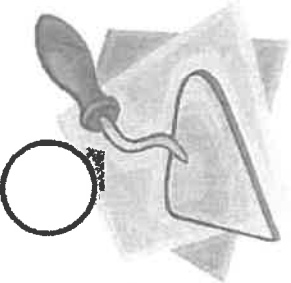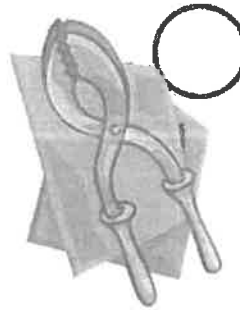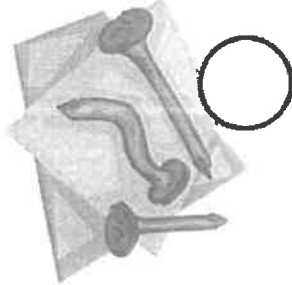
1. marehm _____
2. iedwevcrrrs _____
3. rwchne _____
4. rlpsei _____
5. taep samruee _____
6. rwscse _____
7. lsnia _____
8. eax _____
9. vseolh _____
10. tnsu _____
11. owrtel _____
12. pencisr _____
13. tmlale _____
14. asw _____
15. raedld _____
16. pcmal _____

HAND TOOLS UNSCRAMBLE THE WORDS 2

Unscramble the hand tools vocabulary and number the pictures
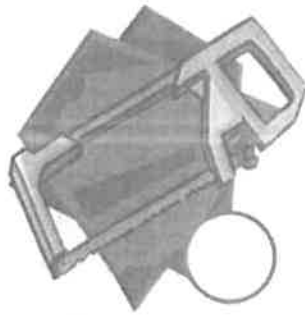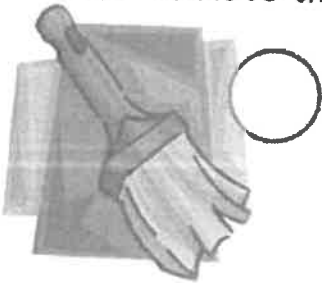
1. udtbeasajl erhncw _____
2. dilrl _____
3. hagmreemesdl _____
4. acahwks _____
5. dlril bist _____
6. tinap rrleol _____
7. ibnshpurta _____
8. ilfe _____
9. ncawihsa _____
10. ihlcse _____
11. ssgal tucert _____
12. gnnridgi eanicmh _____
13. oloxtob _____
14. lpaset ugn _____
15. drnogseil onir _____
16. thoroclbw _____

hammer	1.
rasp	2.
saw	3.
drill	4.
level	5.
shovel	6.
wrench	7.
trowel	8.
pliers	9.
chisel	10.

Put in Alphabetical order

	sawr sare saw		nail nale nalle
	axe axt acx		haamer hammer hameer
	drill drille drelle		skrew screw scrue
	plyars plyers pliers		rench wrench wrentch
	skrewdriver skruedriver screwdriver		raik raike rake

Circle the correct spelling

Hand Tools

D&T @wos

Below are some of the tools you will be using this term. Label and then explain what the tools are used for in the spaces provided.

Feature:

Feature:

Tool name:

This tool is used for:

Tool name:

This tool is used for:

Feature:

Feature:

Feature:

Feature:

Tool name:

This tool is used for:

Tool name:

This tool is used for:

Feature:

Wood Working Tools

```
T T L W F L S C P N X L X C M G L Z M X E P K N
J N M L G A G X L T T N S X Y M V Q G G R N H G
K C Z B T T I N M G T A R N N S Y F D V N N Y Z
Z F R W L H J M T Q W M Q L T Q P E H L L I R D
D R Y D D E Z P X H R Y I D C S H M L T Z H J Q
C A R C N F N N O X G C R I P G Z N A X Q V K B
A M G M D M B R I N N I R E I G T Y N L K C N E
R I Y V N L S T R E L C E A P Q M A P N C B Z H
P N L L X E L T P L U D R W R K C M B D R M N C
E G W M R E H K P L S T A K E D R H T L R T T N
N S A A J R N R A Q S S D N Q E F F D C E L J E
T Q P I N U E R U H E Y I M V Q Y R W M C S W R
A U S R Z B S A T L L L X I M I T R E K N Q A W
R A T N B A R N O H K A R B T I B L L I R D T W
S R A A W E B H Y L M D S N K Y M M M N R H K T
A E C I X M Y Q A D W R G E T W S A N M X G M R
P V M L W E G H U E M A T R R V B R L W D G R E
R M W E K P C Y R A R L S T A L T P E L V K K M
O T X R T A J C N P R T L D V B E K V V E L R M
N N M Y J T S L L C Y E Z N N N Y V D V I T Y A
H K P G C N Q X G L E V E L G A Y R E Z T R T H
E B I R C S P C M L F N G C X H H M P L L V D M
R Y L F A I R C O M P R E S S O R J N C R N Q L
P K M P B R E C I P R O C A T I N G S A W Y P Q
L X N J N P A D D L E B I T W C Z R E T U O R Q
```

AIR COMPRESSOR	DRILL PRESS	LEVEL	SCREW DRIVER
AIR NAILER	DRIVERS	MALLETT	SCRIBE
CARPENTARS APRON	FRAMING SQUARE	MITRE	SPEED SQUARE
CATS PAW	HAMMER	PADDLE BIT	SQUARE
CHALK LINE	HAND SAW	PENCIL	STRAIGHT EDGE
CIRCULAR SAW	JIGS	PRY BAR	TABLE SAW
CLAMPS	KEYHOLE SAW	RECIPROCATING SAW	TAPE MEASURE
DRILL	LASER LEVEL	ROUTER	WRENCHES
DRILL BITS	LATHE	SAWHORSE	

Name _____

Find and circle the following words in the puzzle.

ruler	wood	band saw
drill press	file	table saw
sandpaper	rasp	router
bench	vise	hammer
jig saw	chisel	scroll saw
plane	drill	jointer
lathe	square	clamps
saw blades	planer	miter saw

www.tlsbooks.com
Graphic ©2012 ...

hammer 1.

rasp 2.

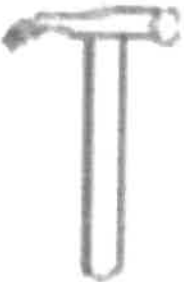saw 3.
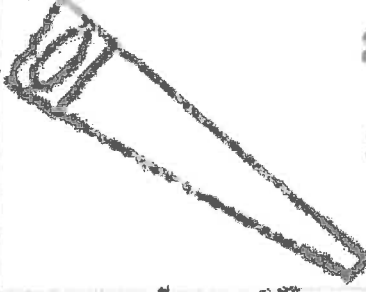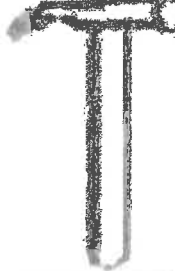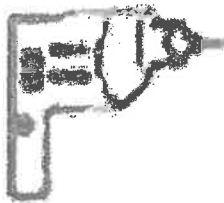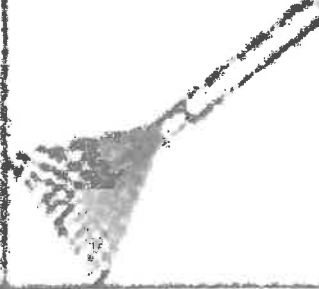
drill 4.

level 5.

shovel 6.

wrench 7.

trowel 8.

pliers 9.

chisel 10.

Put in Alphabetical order

	sawr sare saw		nail nale nalle
	axe axt acx		haamer hammer hameer
	drill drille drelle		skrew screw scrue
	plyars plyers pliers		rench wrench wrentch
	skrewdriver skruedriver screwdriver		raik raike rake

Circle the correct spelling

Hand Tools

Below are some of the tools you will be using this term. Label and then explain what the tools are used for in the spaces provided.

Feature:

Feature:

Tool name:

This tool is used for:

Tool name:

This tool is used for:

Feature:

Feature:

Feature:

Feature:

Feature:

Tool name:

This tool is used for:

Tool name:

This tool is used for:

Feature:

Wood Working Tools

```
T T L W F L S C P N X L X C M G L Z M X E P K N
J N M L G A G X L T T N S X Y M V Q G G R N H G
K C Z B T T J N M G T A R N N S Y F D V N N Y Z
Z F R W L H J M T G W M Q L T Q P E H L L I R D
D R Y D D E Z P X H R Y J D C S H M L T Z H J Q
C A R C N F N N O X G C R I P G Z N A X G V K S
A M G M D M B R T N N I R E I G T Y N L K C N E
R I Y V N L S T R E L C E A P Q M A P N C B Z H
P N L L X E L T P L U D R W R K C M B D R M N C
E G W M R E H K P L S T A K E D R H T L R T T N
N S A A J R N R A Q S S D N Q E F F D C E L J E
T Q P I N U E R U H E Y I M V Q Y R W M C S W R
A U S R Z S S A T L L L X I M I T R E K N Q A W
R A T N S A R N O H K A R S T I B L L I R D T W
S R A A W E S H Y L M D S N K Y M M M N R H K T
A E C I X M Y Q A D W R G E T W S A N M X G M R
P V M L W E G H U E M A T R R V B R L W D O R E
R M W E K P C Y R A R L S T A L T P E L V K K M
O T X R T A J C N P R T L D V B E K V V E L R M
N N M Y J T S L L C Y E Z N N N Y V D V I T Y A
H K P Q C N Q X C L E V E L G A Y R E Z T R T H
E B I R C S P C M L F N G C X H H M P L L V D M
R Y L F A I R C O M P R E S S O R J N C R N Q L
P K M P B R E C I P R O C A T I N G S A W Y P Q
L X N J N P A D D L E B I T W C Z R E T U O R Q
```

AIR COMPRESSOR	DRILL PRESS	LEVEL	SCREW DRIVER
AIR NAILER	DRIVERS	MALLETT	SCRIBE
CARPENTARS APRON	FRAMING SQUARE	MITRE	SPEED SQUARE
CATS PAW	HAMMER	PADDLE BIT	SQUARE
CHALK LINE	HAND SAW	PENCIL	STRAIGH EDGE
CIRCULAR SAW	JIGS	PRY BAR	TABLE SAW
CLAMPS	KEYHOLE SAW	RECIPROCATING SAW	TAPE MEASURE
DRILL	LASER LEVEL	ROUTER	WRENCHES
DRILL BITS	LATHE	SAWHORSE	

Physics Lesson 6: Applied Force

Learning Intention: I can define applied force

Success Criteria:

- Define applied force and complete the table
- Activity: Use applied force to shape play-dough into a cube

An applied force is a type of contact force which is applied to an object.

This force can be applied by another person or another object.

For example, a person throwing a ball applies means a push force goes from the person to the ball.
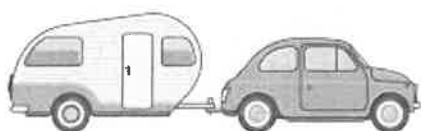
A car towing a caravan means the car applies a pull force to the caravan.

A person using a rowing machine applies a pull force to the bar on the rowing machine.
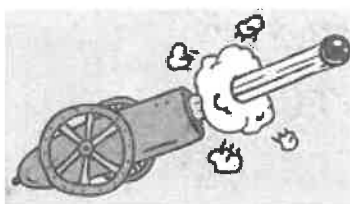
A cannonball launched out of a cannonball is a push force applied from the cannon to the cannonball.

Complete the table below and over the page.

	Is it a push or pull?	What is applying the force?	What is the force moving?
When you push a door closed.			
A nail gun putting a nail into wood.			

	Is it a push or pull?	What is applying the force?	What is the force moving?
When you pull the bath plug out of the bath.			
A winch pulling a bogged car out of mud.			
When you open a bag of potato chips.			
When you wipe down a kitchen bench.			

Play-dough activity

- Make play-dough using the recipe below.
- Make it into a cube and some other shapes.
- Describe and draw a diagram in your workbooks the different forces needed to shape the play-dough.

Play-dough recipe

Ingredients:

- 1 cup plain flour
- 1/2 cup salt
- 2 tsp oil
- 1/2 cup cold water
- 1 drop liquid food colouring

Method:

1) Combine plain flour and salt.
2) Add water, food colouring and oil. Mix until ingredients are combined.
3) Knead well.
4) If consistency is too wet add a little plain flour.

Physics Lesson 7: Friction

Learning Intention: I know the effect of friction on objects

Success Criteria:

- Describe what friction means
- Activity: investigate friction with and without socks

Friction is a contact force. It is the force that slows the movement down.

Without friction, a light push of an object means that it keeps on going and going and going and going...

All surfaces have friction (even smooth surfaces).

- The rougher the surfaces, the more friction.
- The harder the surfaces are pushed together the more friction there is.

Friction can be helpful. When you're playing football, what do you think the studs in the shoes help to do? (Hint, use the word friction in your answer.)

_____

_____

_____

_____

Sometimes, friction is unhelpful. Air resistance is the friction against something that is moving through the air. It is the air particles pushing against the object.

Is it easier to run into the wind or run away from the wind? Why? (Hint, use air resistance in your answer)

_____

_____

_____

_____
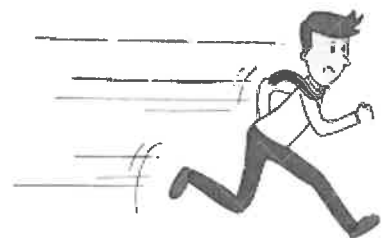
Friction happens in water too. Water pushes harder against the object than air does. Have you noticed how it is much harder to run in the water?

Polyurethane swim suits are banned in the Olympics because it gives an unfair advantage. Why might that be? (Hint: Use the word friction in your answer).

_____

_____

_____

_____

_____

_____

Activity: Investigate friction with and without socks.

1. Try doing a slide on carpet with socks
2. Try doing a slide on carpet without socks.
3. Try doing a slide on floorboard or tiles with socks.
4. Try doing a slide on floorboard or tiles without socks?

Answer these questions into your activity book:

- Which did you move furthest in?
- Which had the least friction?
- Which did you move least in?
- Which had the most friction?

Physics Lesson 8: Gravity, mass and weight

Learning Intention: I understand that gravity is a force which influences mass and weight.

Success Criteria:

- Describe gravity as a non-contact force.
- Describe the difference between how mass and weight relate to gravity.
- Activity: how much would you weigh on other planets?

All objects are made of matter and matter has mass. More matter particles = more mass. Mass is very weakly attracted to each other, and this force is called gravity. Everything with mass has a gravitational or forcefield. Yup, even we have a force field because we have mass!

Draw yourself as a superhero with a force field.

PHYSICS PUNS ARE NO JOKE

THEY ARE A RELATIVELY DARK MATTER
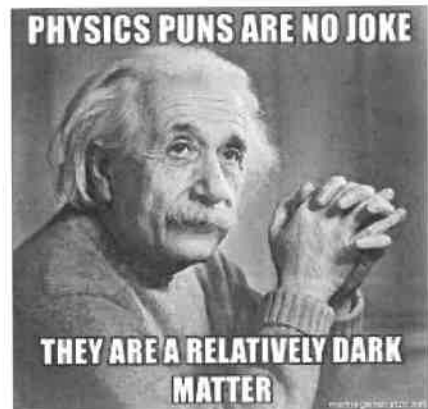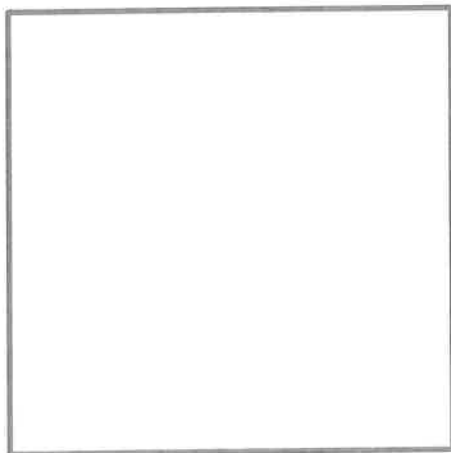
Gravity is a non-contact force because it pulls objects inside the gravitational field without needing to touch it.

We are held to the earth by gravity because the earth has enough mass that we can feel the gravity. When we jump, we don't fly off the earth because gravity sucks us back into the ground. We can even breath because the earth holds air to its surface as well.

What do you think would happen if you threw a ball and there was no gravity?

Activity: How much would you weigh on other planets?

- **Mass is measured** by grams, kilograms, tonnes. When we weigh something on scales, we are actually measuring mass.
- **Weight** is how much gravity pulls on the mass, measured in Newtons (N).

So... you would weigh less Newtons on a smaller planet like Mercury because it has less mass and gravity.

Have a look at the size of Jupiter. Does it have more or less mass than earth? _____

So does it have more or less gravity? _____

Does this mean you would weigh more or less?

_____

Your mass on earth is: _____kg. The mass is the same for all below.

- Earth: _____kg x 10 times gravity = _____N
- Moon: _____kg x 1.7 times gravity = _____N
- Sun: _____kg x 280 times gravity = _____N
- Mercury: _____kg x 3.7 times gravity = _____N
- Venus: _____kg x 9 times gravity = _____N
- Mars: _____kg x 3.8 times gravity = _____N
- Jupiter: _____kg x 25 times gravity = _____N
- Saturn   _____kg x 13 times gravity = _____N
- Uranus: _____kg x 11 times gravity = _____N
- Neptune: _____kg x 11 times gravity = _____N
- A neutron star: _____kg x 1,400,000000,000 times gravity = _____N

That means if you could stand on the sun you would weigh what a black rhino weights on the earth.

Physics Lesson 9: Falling and Terminal Velocity

Learning Intention: I know forces involved in falling and at terminal velocity.

Success Criteria:

- Describe the forces on falling and at terminal velocity.
- Activity: Build a catapult and show forces.

Things fall because gravity attracts them into the ground.

Remember how with a force in one direction, there is an opposite force? When something falls, it needs to go through a whole lot of air so the air pushes up against the falling object.

AIR RESISTANCE

GRAVITY

ACCELERATION

The force downwards is gravity. The force upwards is air resistance which is a contact force because it is pushing upwards.

When the force of gravity is larger than the air resistance, the velocity (speed) of the fall is increasing (there is more acceleration). This means that Homer is falling faster and faster.

LESS ACCELERATION

As Homer falls faster and faster, the air resistance against him increases until the air resistance equals the force of gravity. He is still going fast, but he isn't speeding up anymore. This is the fastest that he can fall, which is called terminal velocity.

CONSTANT SPEED
(TERMINAL VELOCITY)
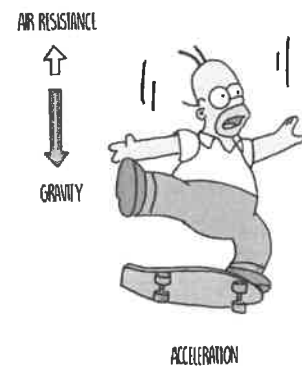
Activity: Build a catapult:

You will need: Icypole sticks, spoon and rubber bands.

These are some examples for inspiration:

Choose a small, heavy object like a coin or a stone and see how far you can fling it with your catapult.

In your workbooks answer the following:

- Draw a diagram of your catapult and how it works.
- Label with arrows the forces of (gravity, air resistance, push force, pull force
- Launch your object 5 times and measure the distance and write them into your workbook using a table like the one below

Trial Number	Distance
1	
2	
3	
4	
5	

Physics Lesson 10: Magnetism

Learning Intention: Understand the features of the magnetism as a non-contact force.

Success Criteria:

- Understand some metals are magnetic.
- Describe that magnets have north and south poles.
- Activity: Compass from needle

Magnets attract some metals. Metals that can be attracted by magnets are described as magnetic. Metals that are magnetic are iron, nickel and cobalt. Steel contains iron so is magnetic. Magnetism is a non-contact force meaning that it doesn't need to touch to exert the force.

Examples of magnetic materials:

Metals like

I can see nick

| Iron | cobalt | steel | nickel |
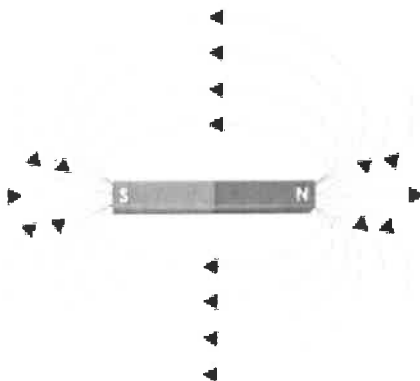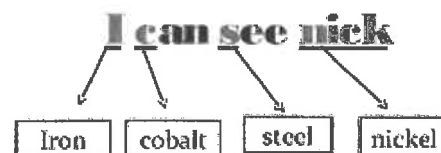
Just like gravity, magnets have magnetic fields. This is also a type of force field. Magnets have a North and a South Pole and magnetic field lines run from North to South.

The North pole from one magnet is attracted to the South Pole of the other magnet. They are attracted because they are different. This is known as magnetic attraction.

When two poles that are the same are pushed together (south and south or north and north), they repel. This is known as magnetic repulsion.

Activity: Compass from a needle

Earth has a weak magnetic field, this is how a compass works.

You will need: A bowl of water, paperclip or sewing needle, a magnet, paper

You need to:

- Magnetise the needle or paperclip by touching it to the magnet.
- Float a bit of paper on top of the water.
- Gently put the needle or paperclip on the paper and watch it spin.

This is an example of what it looks like
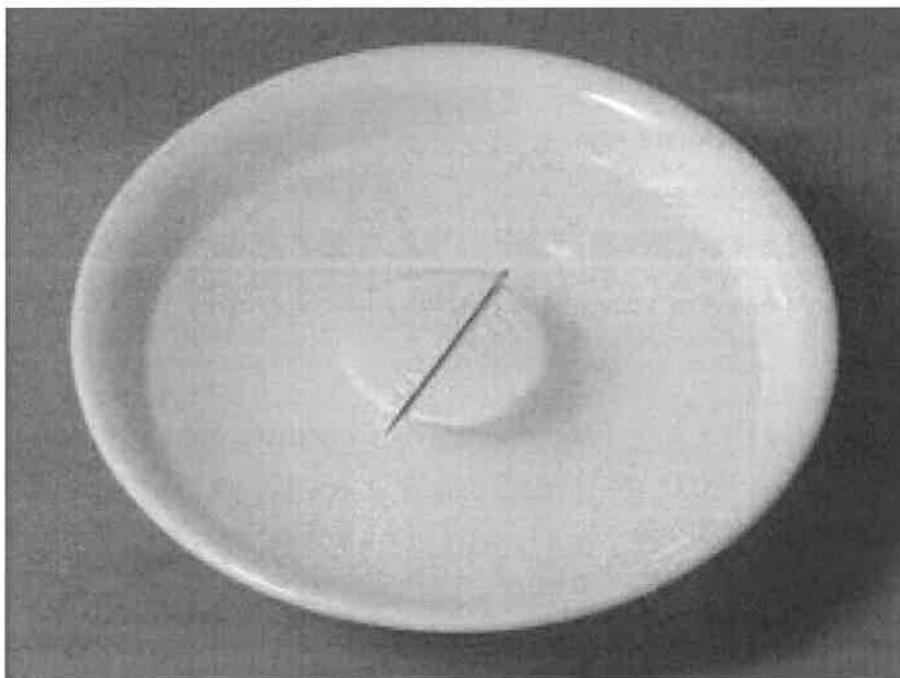
Describe your findings in your workbook and answer these questions:

- What happened when you touched the needle with the magnet?
- Draw your magnet with north and south poles.
- Do you think you can be like Bear Grylls and navigate your way out of the jungle with the compass you have made?

YEAR 7 MATHEMATICS - GRAPHING AND DATA DISPLAY PROJECT

PART ONE - STUDENT HEART RATE

1. Run around as fast as you can for one minute.
2. Measure your pulse rate as soon as you stop running.

	PULSE RATE (number of beats in a minute)
STRAIGHT AFTER EXERCISE (0 MINUTES)	
1 MINUTES	
2 MINUTES	
3 MINUTES	
4 MINUTES	
5 MINUTES	

1. Draw a line graph of your results.

2. Describe what happens in your line graph.

PART TWO - 2020 OLYMPIC GAMES GOLD MEDAL TALLY

1. Choose any 5 countries that competed in the 2020 Olympic Games. Write down how many gold medals they won.

COUNTRY	NUMBER OF GOLD MEDALS

2. Make a **column graph** of how many gold medals those 5 countries won.

3. For the gold medals, calculate the:

   - Mean

   - Median

   - Mode

   - Range

PART THREE - WHAT'S YOUR FAVOURITE COLOUR?

1. Survey your family and friends to find out their favourite colour.

COLOUR	NUMBER

2. Show your data in a graph of your choice.
3. What are the three most popular colours?
4. What colour is the most popular?

PART FOUR - TOSSING A DICE

1. Toss a dice 200 times.

NUMBER	TALLY
1	
2	
3	
4	
5	
6	

2. Make a dot graph using these results.
3. What results did you expect? Did you get these results?

EXTENSION: Choose your own data set. You could make a survey, or find data on the internet. Represent and describe your data in a manner of your choice.
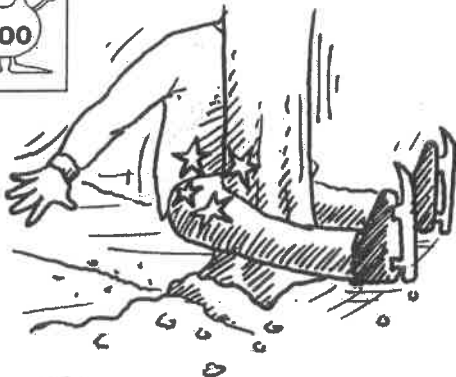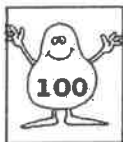
Why shouldn't you tell riddles while ice-skating?

Simplify the terms given. The answer and the letter beside each term gives the puzzle code.

A $2 \times a \times b =$

C $3 \times e \times 2 \times b =$

C $c \times m \times 5 =$

C $14 \times a \times b \div 2 =$

E $26 \div 13 \times n \times t =$

E $5 \times d \times 2 \times m \times 3 =$

G $b \times d \times e =$

H $12 \times c \times d \div 4 =$

H $\dfrac{15 \times e \times f}{3} =$

I $3 \times 5 \times a \times 7 =$

I $\dfrac{2 \times b \times a \times 10}{5} =$

K $2a \times 3b \times c =$

M $\dfrac{10mn \times 4c}{8} =$

P $7 \times t \times 3 \times n \times 2 =$

R $8 \times b \times 2 \times e \div 16 =$

T $3 \times 2 \times 5 \times 6 \times a =$

T $\dfrac{15 \times e \times 4 \times f}{6} =$

U $50m \times 4d \div 40 =$

180a	5ef	2nt	4ab	6be	30dm
5cmn	105a		bde	3cd	10ef
5cm	be	2ab	7ab	6abc	5dm	42nt

Chapter 5: Algebra
Worksheet A

1 Consider the expression $2p + 3q + 5r + 7$.

a List the terms in the expression.

_____

_____

b State the coefficient of each pronumeral in the expression.

_____

_____

c What is the constant term?

_____

2 Write an expression for each of the following without using the × or ÷ symbols.

a a is halved, then 9 is added

_____

b 4 less than triple the value of b

_____

c 2 is added to c, then the result is multiplied by 7

_____

d d is multiplied by 3 and the result is divided by 8

_____

e the sum of 6 and one-fifth of e

_____

f the product of f and g is subtracted from h

_____

3 If $m = 4$ and $n = 5$, find the value of the following expressions.

a $7m + 3$

_____

b $14 - \dfrac{10}{n}$

_____

c $\dfrac{mn}{2} + 3(n-1)$

_____

d $\sqrt{8m - 7}$

_____

e $\sqrt{n^2 - m^2}$

_____

f $\left(\dfrac{12}{m} + n\right)^2$

_____

4 **a** Complete the following table.

	$x = 0$	$x = 1$	$x = 2$	$x = 3$
$3x + 6$				
$3x + 2$				
$3(x + 2)$				

b Are any of the expressions $3x + 6$, $3x + 2$ or $3(x + 2)$ equivalent?

_____

Chapter 5: Algebra
Worksheet B

1 Write the following expressions without multiplication signs.

  a $5 \times p \times q \times 4 \times r$

  b $3a \times 2bc \times 6d$

2 Write the following expressions without a division sign. Simplify your answer, if possible.

  a $(2m - 1) \div 3$

  b $5s \div 6t$

  c $4a \div 7ab$

  d $9xyz \div 12xz$

3 The expression $3(n + 5)$ can be written as $(n + 5) + (n + 5) + (n + 5)$.

  a Simplify this expression by collecting like terms.

  b Using the same method, write $2(3a + 7b)$ in full and simplify the result.

5 For each of the following, find the expression that is *not* equivalent to the others.

  a $x + 3 + 4x$, $5 + 4x - 3 + x$, $3x + 3 + 2x$, $4 + 2x - 1 + 3x$

  b $5x - 5 - 2x - 2$, $4x - 3 - x - 4$, $2x - 7 + x$, $3x - 2 - x + 5$

6 Simplify the following by collecting like terms.

  a $3a + 4 + 2a$

  b $10b - 5b + b$

  c $6 + 9c - 7d + 2 - 4c$

  d $8x + 6y - 3x + y + 2x$

  e $9e - 3ef - 7e + 5ef$

  f $15st + 5s - 8st + 4 - 2t + 3s$

4 Use the distributive law to expand the following.

a $4(x + 8)$

b $7(y - 6)$

c $5(9 - 3z)$

d $3c(9a + 2b)$

5 Consider the following rectangle:

$3b$

$4a$

a Write an expression that gives the perimeter of this rectangle.

b Use your expression to find the perimeter if $a = 4$ and $b = 7$.

c Write an expression that gives the area of this rectangle.

d Use your expression to find the area if $a = 2$ and $b = 3$.

6 In Australian Rules football a goal is worth 6 points and a 'behind' is worth 1 point. This means the total score for a team is $6g + b$, if g goals and b behinds are scored.

a What are the values of g and b for a team that has scored 5 goals and 2 behinds?

b What is the score for a team that has scored 9 goals and 8 behinds?

c If a team has a score of 37, this could be because $g = 4$ and $b = 13$. Find two other possible values of g and b.

7 An electrician charges a $30 call-out fee and $80 per hour.

a Complete the following table.

Hours	1	2	3	4	5
Total cost ($)					

b Write an expression for the total cost if the electrician works for h hours.

c Use your expression to find how much it will cost for the electrician to work for 12 hours.

Chapter 5: Algebra

Worksheet A answers

1 a $2p, 3q, 5r$ and 7
  b The coefficient of p is 2, the coefficient of q is 3 and the coefficient of r is 5
  c 7

2 a $\frac{a}{2}+9$ b $3b-4$ c $7(c+2)$
  d $\frac{3d}{8}$ e $6+\frac{e}{5}$ f $h-fg$

3 a 31   b 12   c 22
  d 5   e 3   f 64

4 a

	$x=0$	$x=1$	$x=2$	$x=3$
$3x+6$	6	9	12	15
$3x+2$	2	5	8	11
$3(x+2)$	6	9	12	15

  b $3x+6$ and $3(x+2)$ are equivalent expressions

5 a $5+4x-3+x$ b $3x-2-x+5$

6 a $5a+4$ b $6b$ c $5c-7d+8$
  d $7x+7y$ e $2e+2ef$ f $8s+7st-2t+4$

Worksheet B answers

1 a $20pqr$ b $36abcd$

2 a $\frac{2m-1}{3}$ b $\frac{5s}{6t}$ c $\frac{4}{7b}$ d $\frac{3y}{4}$

3 a $3n+15$
  b $(3a+7b)+(3a+7b)=6a+14b$

4 a $4x+32$ b $7y-42$ c $45-15z$ d $27ac+6bc$

5 a $8a+6b$ b 74   c $12ab$ d 72

6 a $g=5$ and $b=2$
  b 62
  c Any two of $g=1, b=31; g=2, b=25; g=3, b=19; g=5, b=7;$ and $g=6, b=1$

7 a

Hours	1	2	3	4	5
Total cost ($)	110	190	270	350	430

  b $(80h + 30)$
  c $990

1. [+ Whole Numbers to 10]

	3	6	5	10	8	4	9	12	7	11
+ 2										

2. [- Whole Numbers to 10]

	8	13	16	9	11	14	7	10	15	12
− 6										

3. [× Whole Numbers to 12]

	8	2	7	10	3	4	6	1	9	5
× 7										

4. [÷ Whole Numbers to 12]

	96	24	48	64	8	80	32	72	40	56
÷ 8										

QUOTE OF THE WEEK
The truth is always the strongest argument.
Sophocles

5. [Large Number +,−]

$$\begin{array}{r} 5\ 2\ 3\ 3 \\ +\ 2\ 4\ 0\ 2 \\ \hline \end{array}$$

6. [Large Number ×,÷]

$$\begin{array}{r} 8\ 0\ 7\ 0 \\ \times\ \ \ \ \ 1\ 0 \\ \hline \end{array}$$

7. [Decimal +,−]

$$\begin{array}{r} 8.4\ 5 \\ -\ 3.0\ 9 \\ \hline \end{array}$$

8. [Decimal ×,÷] *

$0.076 \times 100 =$

9. [Fraction +,−] *

$\dfrac{8}{5} - \dfrac{1}{5} =$

10. [Fraction ×,÷] *

$5 \times \dfrac{3}{10} =$

11. [Percentages]

India has 41% of the world's poor people. What percentage of poor people live in the remainder of the world?

12. [Decimals / Fractions / Percentages]

Simplify $\dfrac{20}{50}$

13. [Integers]

Arrange in order from coldest to hottest:
6°C, −5°C, 3°C, −8°C

14. [Rates / Ratios]

Simplify the ratio
60¢ : 200¢

15. [Indices / Square Roots]

$4^2 =$

16. [Order of Operations] *

$42 \div 6 - 5 =$

17. [Exploring Numbers]

What is the value of the underlined digit in the number 5972?

18. [Multiples / Factors / Primes] *

What is the lowest common multiple (LCM) of 8 and 12?

19. [Number Patterns]

Complete the pattern:

7.7, 7.3, 6.9, 6.5, ___ , ___

20. [Expressions]

Simplify
$wx + wx - wx$

21. [Substitution] *

If $b = 6$, find the value of $7b$

22. [Equations]

$\boxed{} - 9 = 11$

23. [Coordinates]

In this AFL starting line up, what are the coordinates of the Centre Half Back (CHB)?

- ● Backs
- ○ Centres
- Forwards
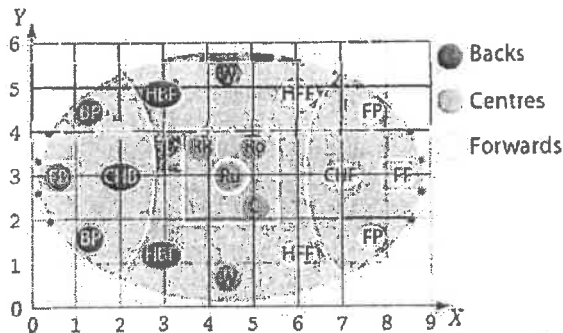
24. [Units of Measurement / Time] *

$5\frac{1}{2}$ m = ⬚ cm

25. [Perimeter] *

Use a ruler to find the perimeter of the trapezium in millimetres.

⬚ mm
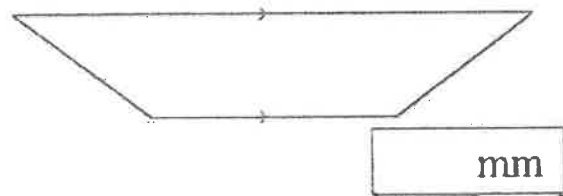
26. [Area / Volume] *

Do the kite and the rectangle have the same area?

27. [Shapes]

Without measuring, would you estimate that the size of this angle is closer to 150° or to 160°?
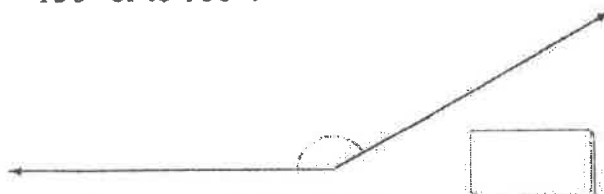
28. [Location / Transformation]

Draw all the axes of symmetry of this shape. How many axes of symmetry does this shape have?

29. [Statistics]

How many stadiums have a seating capacity between 40 000 and 50 000?

Seating capacity: Football stadiums
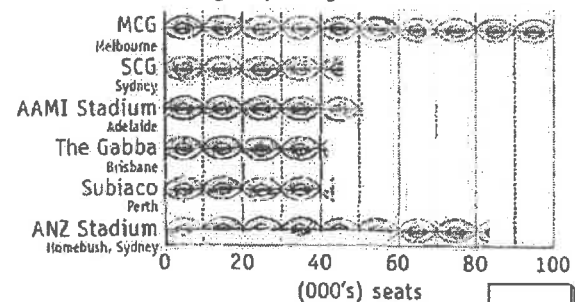
30. [Probability]

'The first baby born next year will be a girl.' Which expression best represents the probability of this event?
A) impossible
B) a 50/50 chance
C) very likely
D) certain

31. [Problem Solving 1] *

Nine trucks are equal in weight to six trucks and four sedans. What fraction of the weight of a truck is the weight of a sedan?

32. [Problem Solving 2] *

Barbie makes an average of 4 calls a day, 5 days a week on her mobile phone. Which phone plan is cheapest for Barbie?

Smart Talk Phone Plans
Plan A - $4.00 per week plus 30¢ per call
Plan B - $1.60 per week plus 40¢ per call
Plan C - $0 per week plus 60¢ per call

33. [Problem Solving 3] *

The sum of four consecutive odd numbers is 80. What is the largest of these numbers?

[23] [24] [25] [26] [27] [28] [29] [30] [31] [32] [33] ⬚

1. [+ Whole Numbers to 10]

+7	5	7	1	4	9	8	6	3	2	10

2. [− Whole Numbers to 10]

−2	6	8	3	10	7	9	12	4	11	5

3. [× Whole Numbers to 12]

×10	2	6	4	8	5	10	11	9	3	7

4. [÷ Whole Numbers to 12]

÷6	66	12	54	18	48	42	60	36	30	24

MATHS MATE

7

Term 1 - Sheet 8

Name: .....

Due Date: ..../ ..../

Parent's Signature:

QUOTE OF THE WEEK
Synchronism: That's when you're running late and you hope your bus is too.
P. K. Shaw

5. [Large Number +,−]

$$\begin{array}{r} 4\ 0\ 3\ 1 \\ +\ 4\ 1\ 2\ 6 \\ \hline \end{array}$$

6. [Large Number ×,÷]

$$\begin{array}{r} 9\ 2\ 5 \\ \times\ 1\ 0\ 0\ 0 \\ \hline \end{array}$$

7. [Decimal +,−]

$$\begin{array}{r} 8\ 9.7 \\ -\ 6\ 0.8 \\ \hline \end{array}$$

8. [Decimal ×,÷] *

$1.39 \times 1000 =$

9. [Fraction +,−] *

$\dfrac{11}{3} - \dfrac{4}{3} =$

10. [Fraction ×,÷] *

$\dfrac{1}{6} \times 8 =$

11. [Percentages]

If 8% of children have a food allergy, what percentage of children do not have a food allergy?

12. [Decimals / Fractions / Percentages]

Simplify $\dfrac{10}{15}$

13. [Integers]

Arrange in order from hottest to coldest:
2°C, −1°C, 7°C, −4°C

14. [Rates / Ratios]

Simplify the ratio
30 days : 12 days

15. [Indices / Square Roots]

$8^2 =$

16. [Order of Operations] *

$4 + 20 \div 4 =$

17. [Exploring Numbers]

What is the value of the underlined digit in the number 41 6̲03?

18. [Multiples / Factors / Primes] *

What is the lowest common multiple (LCM) of 8 and 10?

19. [Number Patterns]

Complete the pattern:

$\dfrac{21}{7}, \dfrac{18}{7}, \dfrac{15}{7}, \dfrac{12}{7}, \underline{\quad}, \underline{\quad}$

20. [Expressions]

Simplify
$jk + jk - jk + jk - jk$

21. [Substitution] *

If $a = 12$, find the value of
$\dfrac{a}{4}$

22. [Equations]

$\boxed{} - 18 = 6$

23. [Coordinates]

Which city is located at the coordinates (9,4)?

24. [Units of Measurement / Time] *

70 cm = ⬜ mm

25. [Perimeter] *

Calculate the perimeter of the trapezium.

40 mm

20 mm   25 mm

55 mm

mm

26. [Area / Volume] *

Do the knots of these neckties have the same area?
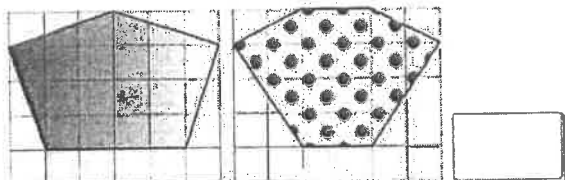
27. [Shapes]

Without measuring, would you estimate that the size of this angle is closer to 40° or to 50°?


28. [Location / Transformation]

Draw all the axes of symmetry of this shape. How many axes of symmetry does this shape have?

29. [Statistics]

Which substance has a melting point close to four times that of candle wax?

Melting points

30. [Probability]

'The 25th of December will be a public holiday.'

Which expression best represents the probability of this event?

A) impossible
B) a 50/50 chance
C) very likely
D) certain

31. [Problem Solving 1] *

Use each of the digits 1 to 5 to make a three-digit number and a two-digit number that have the greatest difference.

32. [Problem Solving 2]

The numbers 1, 2, 3, 4 and 5 are arranged on the grid so that every number appears exactly once in each row and column. Fill in the missing numbers.

33. [Problem Solving 3] *

Three clocks in the bus station give the following readings:

One clock is 20 minutes fast. At least one clock is slow. One clock is off by half an hour. What time is it?

1. [+ Whole Numbers to 10]

+ 1	12	9	10	7	13	6	11	5	18	14

2. [– Whole Numbers to 10]

– 4	14	7	9	11	8	10	12	5	13	16

3. [× Whole Numbers to 12]

× 11	7	3	8	4	1	10	5	6	9	2

4. [÷ Whole Numbers to 12]

÷ 7	28	63	21	42	56	70	35	49	77	14

5. [Large Number +,–]
$$\begin{array}{r} 6739 \\ -6284 \\ \hline \end{array}$$

6. [Large Number ×,÷]

$2\overline{)188}$

7. [Decimal +,–]
$$\begin{array}{r} 5.76 \\ +1.28 \\ \hline \end{array}$$

8. [Decimal ×,÷]
$$\begin{array}{r} 1.5 \\ \times \quad 7 \\ \hline \end{array}$$

9. [Fraction +,–] *
$2\frac{3}{5} + 1\frac{1}{5} =$ ☐

10. [Fraction ×,÷] *
$\frac{1}{3}$ of \$45 = \$ ☐

11. [Percentages]
70% of 100 = ☐

12. [Decimals / Fractions / Percentages]
Name the fraction at the marked point.

0   1

13. [Integers]
Use < or > to make a true statement.

0 ☐ –4

14. [Rates / Ratios] *
It took Aisha 4 hours to complete a 16 km walk. What was her average speed in kilometres per hour?
☐ km/h

15. [Indices / Square Roots]
$10^3 =$ ☐

16. [Order of Operations] *
$9 - (3 + 2) + 8 =$ ☐

17. [Exploring Numbers]
In the number 3.26 which digit is in the tenths place? ☐
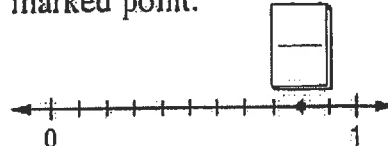
18. [Multiples / Factors / Primes] *
Is 5 a factor of 7565? ☐

19. [Number Patterns]
Complete the table:

Blinks

men	1	2	3	4	5
women	2	4	6		

20. [Expressions]
Simplify
$2z + 2z$ ☐

21. [Substitution] *
If $x = 3$, find the value of $3x + 1$

22. [Equations]
$8 \times$ ☐ $= 24$

23. [Coordinates]

Plot the following points on this Cartesian plane:

A at coordinates (5,4)
B at coordinates (−4,3)
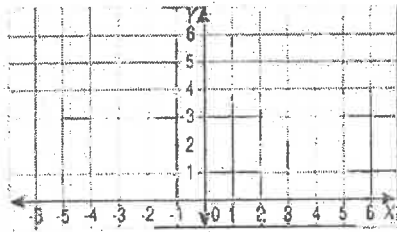
24. [Units of Measurement / Time] *

$8000 \text{ g} = \boxed{} \text{ kg}$

25. [Perimeter] *

Calculate the perimeter of the scalene triangle.

$\boxed{}$ mm

26. [Area / Volume] *

Find the area of the shaded shape.
[Round to the nearest whole number.]

$\boxed{}$ sq. units

27. [Shapes]

Draw a square marking the congruent sides and congruent angles.

28. [Location / Transformation] *

Using the scale, what is the distance from Groningen to Rotterdam?

$\boxed{}$ km

29. [Statistics]

How many Australian deserts measure between 100 000 and 200 000 km^2?

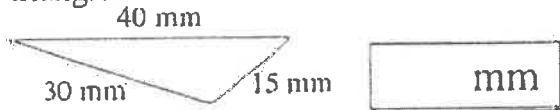| Desert	Size (km^2)	% of Aus
Great Victoria (WA, SA)	348 750	4.5
Great Sandy (WA)	267 250	3.5
Tanami (WA, NT)	184 500	2.4
Simpson (NT, QLD, SA)	176 500	2.3
Gibson (WA)	156 000	2.0
Little Sandy (WA)	111 500	1.5
Strzelecki (SA, QLD, NSW)	80 250	1.0
Sturt Stony (SA, QLD, NSW)	29 750	0.3
Tirari (SA)	15 250	0.2
Pedirka (SA)	1 250	<0.1
Total	1 371 000	18

$\boxed{}$

30. [Probability]

How many different outcomes are possible when flipping two coins?
[Complete the table.]

Possible outcomes	Coin 1	
	H	T
Coin 2 H	H,H	
Coin 2 T		

$\boxed{}$
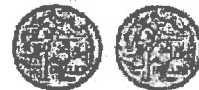
31. [Problem Solving 1] *

A rectangular photograph measures 3 cm wide and 4 cm long. If it was enlarged proportionally to be 12 cm long, how wide would it be?

$\boxed{}$ cm

32. [Problem Solving 2] *

A date is said to be *lucky* if, when written in the format *D/M/YY*, the product of the month and the day equals the two digits of the year. How many lucky dates will there be in 2018? [e.g. 3/4/12 ⇒ 3 × 4 = 12]

$\boxed{}$

33. [Problem Solving 3] *

Neon sign #1 turns on for 4 seconds then off for 2 seconds. Neon sign #2 turns on for 4 seconds then off for 6 seconds. Both signs are started at the same time and repeat their cycles endlessly. How many times per minute do they start their cycles together?

$\boxed{}$

23 24 25 26 27 28 29 30 31 32 33 $\boxed{}$

SOLVE THE MYSTERY:
CASE OF THE SUPER BAD SUPERHERO

Detective

_____
(your name)

Has discovered that the super bad Superhero is:

Teacher to check and tick

Well done! You have correctly revealed the identity of the Super Bad Superhero! Thanks to your brilliant math skills and detective work, the police were able to gather the real superheroes to help them capture the phony. Once they caught the antihero, all of the captured citizens were released from their imprisonment. All of the victims, including the Mayor, are very grateful for your help in setting them free and putting a stop to the Chaos in Mathhattan.

Oops! No that is not the identity of the Super Bad Superhero Check your work and try again!

Clues Checklist:

Clue 1 ☐

Clue 2 ☐

Clue 3 ☐

Clue 4 ☐

Clue 5 ☐

DIVISION (2-DIGIT DIVISORS) – CLUE 5

In the grid below you will find a number of statements being texted to you, however, only one of them is revealing the correct final clue. Complete the division questions, and then look for your answer in the statement boxes and cross out that box (meaning that the statement in that box has been eliminated). The one statement box left standing after completing all of the questions, is the one with the correct clue!

The super bad Superhero uses invisibility to shock people with sudden energy blasts coming out of nowhere. **121**	The super bad Superhero uses super strength to throw a magical trap on victims and then teleports them to a secret dungeon. **527**	The super bad Superhero casts icy energy blasts to make victims stick to the floor and uses mind control to make them walk back to wherever this strange imprisonment is. **88**	The super bad Superhero teleports behind victims and uses mind control to make them go to a prison of some sort. **11**
The super bad Superhero uses poisonous burps to weaken victims, then teleports to make a fast get away. **8**	The super bad Superhero uses super strength to lift cars with people in them and then uses the power of invisibility to make them disappear. **97**	The super bad Superhero uses invisibility to stealth through the streets and uses super strength to keep everyone away. **9**	The super bad Superhero uses electric energy blasts to destroy walls and then teleports victims inside to somewhere strange. **2**
The super bad Superhero uses poisonous burps to make people faint and then casts mind control to make them walk to the hidden prison. **6**	The super bad Superhero uses super speed to catch victims without no one else noticing, then teleports them somewhere secret. **1**	The super bad Superhero casts a sonic scream to stun everyone around, and then uses teleportation to make a quick get away. **432**	The super bad Superhero travels around like a bug and then shapeshifts into human form to cast poisonous burps on everyone. **128**

76 ÷ 38 = _____

5,270 ÷ 10 = _____

86 ÷ 86 = _____

8,960 ÷ 70 = _____

882 ÷ 98 = _____

204 ÷ 34 = _____

594 ÷ 54 = _____

2,783 ÷ 23 = _____

7,776 ÷ 18 = _____

7,178 ÷ 74 = _____

5,720 ÷ 65 = _____

SUBTRACTING DECIMALS – CLUE 3

Solve another important clue by completing the subtraction questions. Use your answers to match and place the letters in the boxes to reveal the clue. Put the letter in every box that it matches your answer in (there may be more than one!)
The first one has been done for you.

Puzzle boxes (answer key values):

4.453	6.05	4.453	0.709	0.26	**L**
4.453	3.91	6.05	4.501	**L**	1.85	1.17
1.17	2.645	2.645		1.85	2.551	4.501
4.453	0.588	1.85	1.56	2.551	4.501
3.325	1.17	4.108	1.56	4.501	0.324
	1.797	4.453	0.324
0.324	3.325	4.453	3.56	4.501
1.797	1.56	1.85	2.551

Questions:

9.26
− 3.21
6.05   **L**

3.97
− 2.12   **T**

4.76
− 0.85   **B**

9.58
− 6.02   **R**

5.45
− 5.19   **Y**

1.89
− 0.33   **I**

8.215
− 6.418   **W**

7.276
− 4.631   **F**

2.046
− 1.722   **S**

6.904
− 2.451   **A**

2.799
− 0.248   **H**

4.65
− 1.325   **C**

1.27
− 0.561   **D**

6.591
− 2.483   **K**

0.904
− 0.316   **N**

7.542
− 3.041   **E**

8.789
− 7.619   **O**

MULTIPLYING WITH DECIMALS – CLUE 4

Solve another important clue by completing the multiplication questions. Use your answers to match and place the letters in the boxes to reveal the clue. Put the letter in every box that it matches your answer in (there may be more than one!)
The first one has been done for you.

Puzzle boxes (answer key values):

Y					
0.9	1.8	3.5	4.5	4	0.8	8.1
4.2	0.3	1.2	2.4	4.5	4.2	1.8	8.1
3.2	1.2	5.6	5.6	4	0.4	2.4	0.8	1.2
0.6	0.4	5.6	1.2	5.6	0.3	0.4	5.6
1	2.4	0.9	**Y**	1.8	1.2	0.6	2.4	4.2
0.3	2.4	4.9	5.6	4

Questions:

3 X 0.3 = **0.9**   **Y**

4 X 0.2 =   **I**

9 X 0.5 =   **D**

5 X 0.7 =   **U**

6 X 0.2 =   **R**

2 X 0.3 =   **W**

7 X 0.7 =   **K**

3 X 0.1 =   **T**

4 X 0.6 =   **A**

8 X 0.5 =   **N**

2 X 0.9 =   **O**

5 X 0.2 =   **M**

8 X 0.7 =   **E**

6 X 0.7 =   **S**

4 X 0.8 =   **G**

9 X 0.9 =   **F**

2 X 0.2 =   **H**

Name: _____

ROUNDING DECIMALS – CLUE 1

Discover an important clue by rounding the numbers as instructed. Use your answers to match and place the letters in the boxes to reveal the first clue. Put the letter in every box that it matches your answer in (there may be more than one!)
The first one has been done for you.

T						
6	2	8	5.3	3	2.64	2.64	10	3	7.2

11.4	10	7.2	7.2	6.1	T	6

5	2.64	4.5

Question	Answer	Letter
What is 5.8 rounded to the nearest whole number?	6	T
What is 3.4 rounded to the nearest whole number?		I
What is 7.9 rounded to the nearest whole number		E
What is 10.1 rounded to the nearest whole number?		A
What is 4.51 rounded to the nearest whole number?		F
What is 2.09 rounded to the nearest whole number?		H
What is 7.16 rounded to the nearest tenth?		N
What is 4.54 rounded to the nearest tenth?		Y
What is 6.05 rounded to the nearest tenth?		O
What is 11.43 rounded to the nearest tenth?		C
What is 5.251 rounded to the nearest tenth?		V
What is 2.638 rounded to the nearest hundredth?		L

Name: _____

ADDING DECIMALS – CLUE 2

Solve another important clue by completing the addition questions. Use your answers to match and place the letters in the boxes to reveal the clue. Put the letter in every box that it matches your answer in (there may be more than one!)
The first one has been done for you.

N						
17.7	14.46	8.826	0.362	8.17	3.466	7.95	7.95

3.7	3.466	9.881	4.325	3.7	0.362	7.95	7.59	17.7	0.362

0.362	7.59	3.466	N	8.17	17.7	0.362	8.826	7.59	3.466	3.7	4.325

17.7

8.826	7.95	5.849	17.7	7.1	3.466

$$\begin{array}{r} 7.12 \\ +\ 1.05 \\ \hline 8.17 \end{array}\ \boxed{N}$$

$$\begin{array}{r} 4.61 \\ +\ 3.34 \\ \hline \end{array}\ \boxed{S}$$

$$\begin{array}{r} 5.97 \\ +\ 1.62 \\ \hline \end{array}\ \boxed{H}$$

$$\begin{array}{r} 1.63 \\ +\ 2.07 \\ \hline \end{array}\ \boxed{R}$$

$$\begin{array}{r} 8.29 \\ +\ 9.41 \\ \hline \end{array}\ \boxed{A}$$

$$\begin{array}{r} 2.944 \\ +\ 1.381 \\ \hline \end{array}\ \boxed{O}$$

$$\begin{array}{r} 5.723 \\ +\ 3.103 \\ \hline \end{array}\ \boxed{I}$$

$$\begin{array}{r} 3.451 \\ +\ 0.015 \\ \hline \end{array}\ \boxed{E}$$

$$\begin{array}{r} 7.938 \\ +\ 1.943 \\ \hline \end{array}\ \boxed{P}$$

$$\begin{array}{r} 6.462 \\ +\ 7.998 \\ \hline \end{array}\ \boxed{W}$$

$$\begin{array}{r} 0.357 \\ +\ 0.005 \\ \hline \end{array}\ \boxed{T}$$

$$\begin{array}{r} 4.875 \\ +\ 2.225 \\ \hline \end{array}\ \boxed{L}$$

$$\begin{array}{r} 1.709 \\ +\ 4.140 \\ \hline \end{array}\ \boxed{M}$$

MATH MYSTERY: ? ? ?

CASE OF THE SUPER BAD SUPERHERO

Name: _____

Date: _____

It is no secret that many superheroes reside on the island of Mathhattan. They usually help fight against crime and provide protection for us all. Sadly, something has changed and someone with superpowers is beginning to cause lots of trouble. This super bad superhero has begun to scare, intimidate and kidnap citizens! The police are powerless, and are unsure as to which superhero we can truly trust anymore...it could be any one of them! People no longer feel safe and are concerned this antihero is unstoppable.

Patrick, the Mayor of Mathhattan, addressed the public earlier this morning with the following speech:

"Stay inside your homes, shut your windows and lock your doors, keep your phones handy for help and be wary of anyone wearing a mask. The MBI (Mathhattan Bureau of Investigation) and other secret sources have recently confirmed that this villain is actually one of who we call superheroes of Mathhattan. It is a mystery to us which superhero to trust and who we cannot. It is going to take some of our finest math detectives to work with the MBI on this serious case; no superhero can be involved. Hopefully, if we can discover who this terrible superhero is, we can put a stop to this chaos and release all of the captured citizens. Until we can reveal who is behind this, we ask that you hand over any evidence or information that you come across to help solve this mystery."

As the mayor stepped off the podium, a large puff of smoke blasted out of nowhere! As the smoke began to settle a shadowy silhouette took hold of the mayor and before anyone could do anything. . . "POOF!" They both disappeared. The Mayor is now a prisoner of this super bad superhero.

MATH DETECTIVE NEEDED TO REVEAL THE SUPER BAD SUPERHERO!

The chaos continues throughout the town; the disguised antihero is doing a good job at keeping his/her identity hidden while scaring and capturing citizens. Everyone in Mathhattan is counting on you to take a closer look at all those we call superheroes and unveil the phony! Upon discovery, alert the good superheros as to who the villain is so that they can help with the arrest and rescue the trapped mayor and citizens!

Be careful not to become a victim yourself!

POSSIBLE SUSPECTS

Superhero Name	Main Superpower	Extra Superpower	Gender M/F	Hair Color	Weakness
Lion Man	Super Speed	Shape Shifting	Male	Orange	Cookies
Dare Girl	Invisibility	Super Strength	Female	Purple	Silver
Mega Mage	Teleportation	Poisonous Burps	Male	Green	Cookies
Owl Man	Invisibility	Shape Shifting	Male	Purple	Sunlight
Blitzfire	Energy Blasts	Super Strength	Female	Orange	Silver
Thunder Hawk	Super Speed	Sonic Scream	Male	Purple	Sunlight
Razor	Energy Blasts	Sonic Scream	Male	Orange	Cookies
Starlight	Invisibility	Flight	Female	Green	Sunlight
Lady Bug	Teleportation	Shape Shifting	Female	Purple	Silver
The Giggler	Mind Control	Poisonous Burps	Male	Green	Cookies
Captain Nucleus	Super Speed	Flight	Male	Orange	Silver
Mrs. Amazing	Mind Control	Sonic Scream	Female	Purple	Sunlight
Doctor Bolt	Mind Control	Super Strength	Male	Orange	Silver
Splash	Energy Blasts	Poisonous Burps	Male	Orange	Cookies
Zapman	Teleportation	Flight	Male	Purple	Silver
Pizza Peter	Super Speed	Poisonous Burps	Male	Green	Sunlight
Titanicus	Energy Blasts	Super Strength	Male	Green	Cookies
Typhoon	Super Speed	Sonic Scream	Female	Orange	Silver
Blinker	Teleportation	Poisonous Burps	Female	Purple	Silver
Major Fury	Super Speed	Flight	Male	Green	Sunlight
Colossal Crush	Invisibility	Super Strength	Male	Green	Cookies

Solve the clues and then cross the suspect rows off the list until only one suspect remains! The last suspect remaining is the Super Bad Superhero behind the trouble in Mathhattan! Whole rows must be eliminated at a time.