

3L Reading Packet

Week 8

Please keep this packet. You will need some of the materials for future weeks.

MATH INSTRUCTIONS

Ms. Medcalf's Math Scholars-

Here are things to keep in mind:

1. The checklist is a guideline to make sure you complete everything you are asked to complete within the week. We encourage you to do as much as you can on any assignment.
2. Please complete ALL PROBLEMS for each problem set. You are required to complete all 30 problems in each problem set for every lesson going forward.
3. There may be extra homework sheets attached within your packet in case anyone needs them.
4. Be mindful of your own math course. Whichever math textbook you have is the math work you should follow in the checklist.
5. **Please put your first and last name AND your math teacher's name (Ms. Medcalf)** at the top of EVERY math page! This will help the staff who sort the work to ensure that I get all the work from my scholars.

For Week 8 of distance learning (May 22nd – May 28th),

Ms. Medcalf's classes should complete all the problems in the sets for:

3L Saxon 8/7: Lessons 70, 71, 72

3L Algebra ½: Lessons 100, 101, 102

For additional resources to help you through the lessons, take a look at our website www.parnassusteachers.com; the password is: Pegasus. Click on "School of Logic" to find resources organized by subject.

Feel free to email me at medcalf@parnassusprep.com, or call/text me at 612-465-9631 with any questions you have about anything school related.

Keep an open mind. Ms. Medcalf

ENGLISH INSTRUCTIONS AND READINGS

Clarifications and Notes

This week, you WILL turn in your Frederick Douglass books in your packet!

Friday: Final Test. These are a mix of multiple choice questions, as well as short answer questions. If you have been keeping up with the work, you should have no problem answering these without looking everything up in your book (and finishing within 30 minutes). If you need to, though, it is an open-book test!

Monday: Memorial Day

Tuesday: We will now move on to Merchant of Venice. Take out your packet with the play in it. **Read Act 1, Scene 1 (pages 1-4)**, and then read the **summary of that scene (page 10)**. You will need to read both in order to answer all of the questions for this book, so don't skip the original! You may choose to watch the video of the play, as well, on <http://www.parnassusteachers.com/sol-english.html>

Wednesday: Read Act 1, Scene 2 and Act 1, Scene 3 (pages 4-9), and then read the summaries (page 10-11)

Thursday: Answer the Act 1 questions (page 12). Turn these in with your packet this week, but **KEEP** the Merchant of Venice reading!

Turn in:

- All 4 parts of the test (will be graded separately)
- Act 1 Questions
- Frederick Douglass Book

Act I, Scene 1

Venice. A street.

[Enter ANTONIO, SALARINO, and SALANIO]

- **Antonio.** In sooth, I know not why I am so sad:
It wearies me; you say it wearies you;
But how I caught it, found it, or came by it,
What stuff 'tis made of, whereof it is born, 5
I am to learn;
And such a want-wit sadness makes of me,
That I have much ado to know myself.
- **Salarino.** Your mind is tossing on the ocean;
There, where your argosies with portly sail,
Like signiors and rich burghers on the flood,
Or, as it were, the pageants of the sea,
Do overpeer the petty traffickers,
That curtsy to them, do them reverence,
As they fly by them with their woven wings. 15
- **Salanio.** Believe me, sir, had I such venture forth,
The better part of my affections would
Be with my hopes abroad. I should be still
Plucking the grass, to know where sits the wind,
Peering in maps for ports and piers and roads; 20
And every object that might make me fear
Misfortune to my ventures, out of doubt
Would make me sad.
- **Salarino.** My wind cooling my broth
Would blow me to an ague, when I thought 25

- What harm a wind too great at sea might do.
I should not see the sandy hour-glass run,
But I should think of shallows and of flats,
And see my wealthy Andrew dock'd in sand,
Vailing her high-top lower than her ribs
To kiss her burial. Should I go to church
And see the holy edifice of stone,
And not bethink me straight of dangerous rocks,
Which touching but my gentle vessel's side,
Would scatter all her spices on the stream, 35
Enrobe the roaring waters with my silks,
And, in a word, but even now worth this,
And now worth nothing? Shall I have the thought
To think on this, and shall I lack the thought
That such a thing bechanced would make me sad? 40
But tell not me; I know, Antonio
Is sad to think upon his merchandise.
- **Antonio.** Believe me, no: I thank my fortune for it,
My ventures are not in one bottom trusted,
Nor to one place; nor is my whole estate
Upon the fortune of this present year:
Therefore my merchandise makes me not sad.
Therefore my merchandise makes me not sad.
- **Salarino.** Why, then you are in love.
- **Antonio.** Fie, fie!
- **Salarino.** Not in love neither? Then let us say you are sad, 50
Because you are not merry: and 'twere as easy
For you to laugh and leap and say you are merry,
Because you are not sad. Now, by two-headed Janus,
Nature hath framed strange fellows in her time:
Some that will evermore peep through their eyes 55
And laugh like parrots at a bag-piper,
And other of such vinegar aspect

That they'll not show their teeth in way of smile,
Though Nestor swear the jest be laughable.

[Enter BASSANIO, LORENZO, and GRATIANO]

- **Salanio**. Here comes Bassanio, your most noble kinsman,
Gratiano and Lorenzo. Fare ye well:
We leave you now with better company.
- **Salarino**. I would have stay'd till I had made you merry,
If worthier friends had not prevented me. 65
- **Antonio**. Your worth is very dear in my regard.
I take it, your own business calls on you
And you embrace the occasion to depart.
- **Salarino**. Good morrow, my good lords.
- **Bassanio**. Good signiors both, when shall we laugh? say,
when? 70
- You grow exceeding strange: must it be so?
- **Salarino**. We'll make our leisures to attend on yours.

[Exeunt Salarino and Salanio]

- **Lorenzo**. My Lord Bassanio, since you have found Antonio,
We two will leave you: but at dinner-time, 75
- I pray you, have in mind where we must meet.
- **Bassanio**. I will not fail you.
- **Gratiano**. You look not well, Signior Antonio;
You have too much respect upon the world:
They lose it that do buy it with much care: 80
Believe me, you are marvellously changed.
- **Antonio**. I hold the world but as the world, Gratiano;
A stage where every man must play a part,
And mine a sad one.
- **Gratiano**. Let me play the fool:
With mirth and laughter let old wrinkles come,

And let my liver rather heat with wine
Than my heart cool with mortifying groans.
Why should a man, whose blood is warm within,
Sit like his grandsire cut in alabaster? 90

Sleep when he wakes and creep into the jaundice

By being peevish? I tell thee what, Antonio—

I love thee, and it is my love that speaks—

There are a sort of men whose visages

Do cream and mantle like a standing pond, 95

And do a wilful stillness entertain,

With purpose to be dress'd in an opinion

Of wisdom, gravity, profound conceit,

As who should say 'I am Sir Oracle,

And when I ope my lips let no dog bark!' 100

O my Antonio, I do know of these

That therefore only are reputed wise

For saying nothing; when, I am very sure,

If they should speak, would almost damn those ears,

Which, hearing them, would call their brothers fools. 105

I'll tell thee more of this another time:

But fish not, with this melancholy bait,

For this fool gudgeon, this opinion.

Come, good Lorenzo. Fare ye well awhile:

I'll end my exhortation after dinner. 110

- **Lorenzo**. Well, we will leave you then till dinner-time:

I must be one of these same dumb wise men,

For Gratiano never lets me speak.

- **Gratiano**. Well, keep me company but two years moe,

Thou shalt not know the sound of thine own tongue. 115

- **Antonio**. Farewell: I'll grow a talker for this gear.

- **Gratiano**. Thanks, i' faith, for silence is only commendable

In a neat's tongue dried and a maid not vendible.

[Exeunt GRATIANO and LORENZO]

- **Antonio.** Is that any thing now? 120
- **Bassanio.** Gratiano speaks an infinite deal of nothing, more than any man in all Venice. His reasons are as two grains of wheat hid in two bushels of chaff: you shall seek all day ere you find them, and when you have them, they are not worth the search. 125
- **Antonio.** Well, tell me now what lady is the same To whom you swore a secret pilgrimage, That you to-day promised to tell me of?
- **Bassanio.** 'Tis not unknown to you, Antonio, How much I have disabled mine estate, 130 By something showing a more swelling port Than my faint means would grant continuance: Nor do I now make moan to be abridged From such a noble rate; but my chief care Is to come fairly off from the great debts 135 Wherein my time something too prodigal Hath left me gaged. To you, Antonio, I owe the most, in money and in love, And from your love I have a warranty To unburden all my plots and purposes 140 How to get clear of all the debts I owe.
- **Antonio.** I pray you, good Bassanio, let me know it; And if it stand, as you yourself still do, Within the eye of honour, be assured, My purse, my person, my extremest means, 145 Lie all unlock'd to your occasions.
- **Bassanio.** In my school-days, when I had lost one shaft, I shot his fellow of the self-same flight The self-same way with more advised watch, To find the other forth, and by adventuring both 150

- I oft found both: I urge this childhood proof, Because what follows is pure innocence. I owe you much, and, like a wilful youth, That which I owe is lost; but if you please To shoot another arrow that self way 155 Which you did shoot the first, I do not doubt, As I will watch the aim, or to find both Or bring your latter hazard back again And thankfully rest debtor for the first.
- **Antonio.** You know me well, and herein spend but time 160 To wind about my love with circumstance; And out of doubt you do me now more wrong In making question of my uttermost Than if you had made waste of all I have: Then do but say to me what I should do 165 That in your knowledge may by me be done, And I am prest unto it: therefore, speak.
- **Bassanio.** In Belmont is a lady richly left; And she is fair, and, fairer than that word, Of wondrous virtues: sometimes from her eyes 170 I did receive fair speechless messages: Her name is Portia, nothing undervalued To Cato's daughter, Brutus' Portia: Nor is the wide world ignorant of her worth, For the four winds blow in from every coast 175 Renowned suitors, and her sunny locks Hang on her temples like a golden fleece; Which makes her seat of Belmont Colchos' strand, And many Jasons come in quest of her. O my Antonio, had I but the means 180 To hold a rival place with one of them, I have a mind presages me such thrift, That I should questionless be fortunate!

- **Antonio.** Thou know'st that all my fortunes are at sea;
Neither have I money nor commodity
185
To raise a present sum: therefore go forth;
Try what my credit can in Venice do:
That shall be rack'd, even to the uttermost,
To furnish thee to Belmont, to fair Portia.

Act I, Scene 2

Belmont. A room in PORTIA'S house.

[Enter PORTIA and NERISSA]

- **Portia.** By my troth, Nerissa, my little body is aweary of
195
this great world.
- **Nerissa.** You would be, sweet madam, if your miseries were in
the same abundance as your good fortunes are: and
yet, for aught I see, they are as sick that surfeit
with too much as they that starve with nothing. It
200
is no mean happiness therefore, to be seated in the
mean: superfluity comes sooner by white hairs, but
competency lives longer.
- **Portia.** Good sentences and well pronounced.
- **Nerissa.** They would be better, if well followed.
205

Go, presently inquire, and so will I,
190

Where money is, and I no question make
To have it of my trust or for my sake.

[Exeunt]

- **Portia.** If to do were as easy as to know what were good to
do, chapels had been churches and poor men's
cottages princes' palaces. It is a good divine that
follows his own instructions: I can easier teach
twenty what were good to be done, than be one of the
210
twenty to follow mine own teaching. The brain may
devise laws for the blood, but a hot temper leaps
o'er a cold decree: such a hare is madness the
youth, to skip o'er the meshes of good counsel the
cripple. But this reasoning is not in the fashion to
215
choose me a husband. O me, the word 'choose!' I may
neither choose whom I would nor refuse whom I
dislike; so is the will of a living daughter curbed
by the will of a dead father. Is it not hard,
Nerissa, that I cannot choose one nor refuse none?
220
- **Nerissa.** Your father was ever virtuous; and holy men at their
death have good inspirations: therefore the lottery,
that he hath devised in these three chests of gold,
silver and lead, whereof who chooses his meaning
chooses you, will, no doubt, never be chosen by any
225
rightly but one who shall rightly love. But what

- warmth is there in your affection towards any of these princely suitors that are already come?
- **Portia.** I pray thee, over-name them; and as thou namest them, I will describe them; and, according to my 230 description, level at my affection.
 - **Nerissa.** First, there is the Neapolitan prince.
 - **Portia.** Ay, that's a colt indeed, for he doth nothing but talk of his horse; and he makes it a great appropriation to his own good parts, that he can 235 shoe him himself. I am much afeard my lady his mother played false with a smith.
 - **Nerissa.** Then there is the County Palatine.
 - **Portia.** He doth nothing but frown, as who should say 'if you will not have me, choose:' he hears merry tales and 240 smiles not: I fear he will prove the weeping philosopher when he grows old, being so full of unmannerly sadness in his youth. I had rather be married to a death's-head with a bone in his mouth than to either of these. God defend me from these 245 two!
 - **Nerissa.** How say you by the French lord, Monsieur Le Bon?
 - **Portia.** God made him, and therefore let him pass for a man. In truth, I know it is a sin to be a mocker: but, he! why, he hath a horse better than the 250 Neapolitan's, a better bad habit of frowning than the Count Palatine; he is every man in no man; if a throstle sing, he falls straight a capering: he will fence with his own shadow: if I should marry him, I

- should marry twenty husbands. If he would despise me 255 I would forgive him, for if he love me to madness, I shall never requite him.
- **Nerissa.** What say you, then, to Falconbridge, the young baron of England?
 - **Portia.** You know I say nothing to him, for he understands 260 not me, nor I him: he hath neither Latin, French, nor Italian, and you will come into the court and swear that I have a poor pennyworth in the English. He is a proper man's picture, but, alas, who can converse with a dumb-show? How oddly he is suited! 265 I think he bought his doublet in Italy, his round hose in France, his bonnet in Germany and his behavior every where.
 - **Nerissa.** What think you of the Scottish lord, his neighbour?
 - **Portia.** That he hath a neighbourly charity in him, for he borrowed a box of the ear of the Englishman and swore he would pay him again when he was able: I think the Frenchman became his surety and sealed under for another.
 - **Nerissa.** How like you the young German, the Duke of Saxony's nephew? 275
 - **Portia.** Very vilely in the morning, when he is sober, and most vilely in the afternoon, when he is drunk: when he is best, he is a little worse than a man, and when he is worst, he is little better than a beast: and the worst fall that ever fell, I hope I shall

- 280 make shift to go without him.
- **Nerissa.** If he should offer to choose, and choose the right casket, you should refuse to perform your father's will, if you should refuse to accept him.
- **Portia.** Therefore, for fear of the worst, I pray thee, set a 285 deep glass of rhenish wine on the contrary casket, for if the devil be within and that temptation without, I know he will choose it. I will do any thing, Nerissa, ere I'll be married to a sponge.
- **Nerissa.** You need not fear, lady, the having any of these 290 lords: they have acquainted me with their determinations; which is, indeed, to return to their home and to trouble you with no more suit, unless you may be won by some other sort than your father's imposition depending on the caskets. 295
- **Portia.** If I live to be as old as Sibylla, I will die as chaste as Diana, unless I be obtained by the manner of my father's will. I am glad this parcel of wooers are so reasonable, for there is not one among them but I dote on his very absence, and I pray God grant 300 them a fair departure.
- **Nerissa.** Do you not remember, lady, in your father's time, a Venetian, a scholar and a soldier, that came hither in company of the Marquis of Montferrat?
- **Portia.** Yes, yes, it was Bassanio; as I think, he was so called.
- **Nerissa.** True, madam: he, of all the men that ever my foolish eyes looked upon, was the best deserving a fair lady.
- **Portia.** I remember him well, and I remember him worthy of thy praise.
[Enter a Serving-man] 310
- How now! what news?
- **Servant.** The four strangers seek for you, madam, to take their leave: and there is a forerunner come from a fifth, the Prince of Morocco, who brings word the prince his master will be here to-night. 315
- **Portia.** If I could bid the fifth welcome with so good a heart as I can bid the other four farewell, I should be glad of his approach: if he have the condition of a saint and the complexion of a devil, I had rather he should shrive me than wive me. Come, 320

Nerissa. Sirrah, go before.

Whiles we shut the gates

upon one wooer, another knocks at the door.

[Exeunt]

Act I, Scene 3

30

5

Venice. A public place.

[Enter BASSANIO and SHYLOCK]

- **Shylock.** Three thousand ducats; well.
- **Bassanio.** Ay, sir, for three months.
- **Shylock.** For three months; well.
- **Bassanio.** For the which, as I told you, Antonio shall be bound.
- **Shylock.** Antonio shall become bound; well.
330
- **Bassanio.** May you stead me? will you pleasure me? shall I know your answer?
- **Shylock.** Three thousand ducats for three months and Antonio bound.
- **Bassanio.** Your answer to that.
- **Shylock.** Antonio is a good man.
335
- **Bassanio.** Have you heard any imputation to the contrary?
- **Shylock.** Oh, no, no, no, no: my meaning in saying he is a good man is to have you understand me that he is sufficient. Yet his means are in supposition: he hath an argosy bound to Tripolis, another to the Indies; I understand moreover, upon the Rialto, he hath a third at Mexico, a fourth for England, and other ventures he hath, squandered abroad. But ships are but boards, sailors but men: there be land-rats and water-rats, water-thieves and land-thieves, I
345
- mean pirates, and then there is the peril of waters, winds and rocks. The man is, notwithstanding,

sufficient. Three thousand ducats; I think I may take his bond.

- **Bassanio.** Be assured you may.
350
- **Shylock.** I will be assured I may; and, that I may be assured, I will bethink me. May I speak with Antonio?
- **Bassanio.** If it please you to dine with us.
- **Shylock.** Yes, to smell pork; to eat of the habitation which your prophet the Nazarite conjured the devil into. I
355
- will buy with you, sell with you, talk with you, walk with you, and so following, but I will not eat with you, drink with you, nor pray with you. What news on the Rialto? Who is he comes here?

[Enter ANTONIO]

- **Bassanio.** This is Signior Antonio.
- **Shylock.** [Aside] How like a fawning publican he looks! I hate him for he is a Christian,
But more for that in low simplicity
He lends out money gratis and brings down
365
- The rate of usance here with us in Venice.
If I can catch him once upon the hip,
I will feed fat the ancient grudge I bear him.
He hates our sacred nation, and he rails,
Even there where merchants most do congregate,
370
- On me, my bargains and my well-won thrift,
Which he calls interest. Cursed be my tribe,
If I forgive him!
- **Bassanio.** Shylock, do you hear?

- **Shylock.** I am debating of my present store,
375
And, by the near guess of my memory,
I cannot instantly raise up the gross
Of full three thousand ducats. What of that?
Tubal, a wealthy Hebrew of my tribe,
Will furnish me. But soft! how many months 380
Do you desire?
[To ANTONIO]
Rest you fair, good signior;
Your worship was the last man in our mouths.
- **Antonio.** Shylock, although I neither lend nor borrow
385
By taking nor by giving of excess,
Yet, to supply the ripe wants of my friend,
I'll break a custom. Is he yet possess'd
How much ye would?
- **Shylock.** Ay, ay, three thousand ducats.
390
- **Antonio.** And for three months.
- **Shylock.** I had forgot; three months; you told me so.
Well then, your bond; and let me see; but hear you;
Methought you said you neither lend nor borrow
Upon advantage.
395
- **Antonio.** I do never use it.
- **Shylock.** When Jacob grazed his uncle Laban's sheep—
This Jacob from our holy Abram was,
As his wise mother wrought in his behalf,
The third possessor; ay, he was the third—
400
- **Antonio.** And what of him? did he take interest?
- **Shylock.** No, not take interest, not, as you would say,
Directly interest: mark what Jacob did.
When Laban and himself were compromised
That all the eanlings which were streak'd and pied
405
Should fall as Jacob's hire, the ewes, being rank,
In the end of autumn turned to the rams,
And, when the work of generation was
Between these woolly breeders in the act,
The skilful shepherd peel'd me certain wands,
410
And, in the doing of the deed of kind,
He stuck them up before the fulsome ewes,
Who then conceiving did in eaning time
Fall parti-colour'd lambs, and those were Jacob's.
This was a way to thrive, and he was blest:
415
And thrift is blessing, if men steal it not.
- **Antonio.** This was a venture, sir, that Jacob served for;
A thing not in his power to bring to pass,
But sway'd and fashion'd by the hand of heaven.
Was this inserted to make interest good?
420
Or is your gold and silver ewes and rams?
- **Shylock.** I cannot tell; I make it breed as fast:
But note me, signior.
- **Antonio.** Mark you this, Bassanio,
The devil can cite Scripture for his purpose.
425
An evil soul producing holy witness
Is like a villain with a smiling cheek,
A goodly apple rotten at the heart:
O, what a goodly outside falsehood hath!

- **Shylock.** Three thousand ducats; 'tis a good round sum.
430
Three months from twelve; then, let me see; the rate—
- **Antonio.** Well, Shylock, shall we be beholding to you?
- **Shylock.** Signior Antonio, many a time and oft
In the Rialto you have rated me
About my moneys and my usances:
435
Still have I borne it with a patient shrug,
For sufferance is the badge of all our tribe.
You call me misbeliever, cut-throat dog,
And spit upon my Jewish gaberdine,
And all for use of that which is mine own.
440
- Well then, it now appears you need my help:
Go to, then; you come to me, and you say
'Shylock, we would have moneys:' you say so;
You, that did void your rheum upon my beard
And foot me as you spurn a stranger cur 445
Over your threshold: moneys is your suit
What should I say to you? Should I not say
'Hath a dog money? is it possible
A cur can lend three thousand ducats?' Or
Shall I bend low and in a bondman's key,
450
With bated breath and whispering humbleness, Say this;
'Fair sir, you spit on me on Wednesday last;
You spurn'd me such a day; another time
You call'd me dog; and for these courtesies
I'll lend you thus much moneys?'
455
- **Antonio.** I am as like to call thee so again,
To spit on thee again, to spurn thee too.
- If thou wilt lend this money, lend it not
As to thy friends; for when did friendship take
A breed for barren metal of his friend?
460
But lend it rather to thine enemy,
Who, if he break, thou mayst with better face
Exact the penalty.
- **Shylock.** Why, look you, how you storm!
I would be friends with you and have your love,
465
Forget the shames that you have stain'd me with,
Supply your present wants and take no doit
Of usance for my moneys, and you'll not hear me:
This is kind I offer.
- **Bassanio.** This were kindness.
470
- **Shylock.** This kindness will I show.
Go with me to a notary, seal me there
Your single bond; and, in a merry sport,
If you repay me not on such a day,
In such a place, such sum or sums as are
475
Express'd in the condition, let the forfeit
Be nominated for an equal pound
Of your fair flesh, to be cut off and taken
In what part of your body pleaseth me.
- **Antonio.** Content, i' faith: I'll seal to such a bond
480
And say there is much kindness in the Jew.
- **Bassanio.** You shall not seal to such a bond for me:
I'll rather dwell in my necessity.
- **Antonio.** Why, fear not, man; I will not forfeit it:
Within these two months, that's a month before

[Exeunt]

485

This bond expires, I do expect return

Of thrice three times the value of this bond.

- **Shylock.** O father Abram, what these Christians are, Whose own hard dealings teaches them suspect The thoughts of others! Pray you, tell me this;

490

If he should break his day, what should I gain

By the exaction of the forfeiture?

A pound of man's flesh taken from a man

Is not so estimable, profitable neither,

As flesh of muttons, beefs, or goats. I say,

495

To buy his favour, I extend this friendship:

If he will take it, so; if not, adieu;

And, for my love, I pray you wrong me not.

- **Antonio.** Yes Shylock, I will seal unto this bond.
- **Shylock.** Then meet me forthwith at the notary's;

500

Give him direction for this merry bond,

And I will go and purse the ducats straight,

See to my house, left in the fearful guard

Of an unthrifty knave, and presently

I will be with you.

505

- **Antonio.** Hie thee, gentle Jew.

[Exit Shylock]

The Hebrew will turn Christian: he grows kind.

- **Bassanio.** I like not fair terms and a villain's mind.

- **Antonio.** Come on: in this there can be no dismay;

510

My ships come home a month before the day.

Summary: Act I, scene i

Antonio, a Venetian merchant, complains to his friends, Salarino and Solanio, that a sadness has overtaken him and dulled his faculties, although he is at a loss to explain why. Salarino and Solanio suggest that his sadness must be due to his commercial investments, for Antonio has dispatched several trade ships to various ports. Salarino says it is impossible for Antonio not to feel sad at the thought of the perilous ocean sinking his entire investment, but Antonio assures his friends that his business ventures do not depend on the safe passage of any one ship. Solanio then declares that Antonio must be in love, but Antonio dismisses the suggestion.

The three men encounter Bassanio, Antonio's kinsman, walking with two friends named Lorenzo and Gratiano. Salarino and Solanio bid Antonio farewell and depart. When Gratiano notices Antonio's unhappiness and suggests that the merchant worries too much about business, Antonio responds that he is but a player on a stage, destined to play a sad part. Gratiano warns Antonio against becoming the type of man who affects a solemn demeanor in order to gain a wise reputation, then he takes his leave with Lorenzo. Bassanio jokes that Gratiano has terribly little to say, claiming that his friend's wise remarks prove as elusive as "two grains of wheat hid in two bushels of chaff" (l.i.115–116). Antonio asks Bassanio to tell him about the clandestine love that Bassanio is harboring. In reply, Bassanio admits that although he already owes Antonio a substantial sum of money from his earlier, more extravagant days, he has fallen in love with Portia, a rich heiress from Belmont, and hopes to win her heart by holding his own with her other wealthy and powerful suitors. In order to woo Portia, however, Bassanio says he needs to borrow more money from Antonio. Antonio replies that he cannot give Bassanio another loan, as all his money is tied up in his present business ventures, but offers to guarantee any loan Bassanio can round up.

Summary: Act I, scene ii

At Belmont, Portia complains to her lady-in-waiting, Nerissa, that she is weary of the world because, as her dead father's will stipulates, she cannot decide for herself whether to take a husband. Instead, Portia's various suitors must choose between three chests, one of gold, one of silver, and one of lead, in the hopes of selecting the one that contains her portrait. The man who guesses correctly will win Portia's hand in marriage, but those who guess incorrectly must swear never to marry anyone. Nerissa lists the suitors who have come to guess—a Neapolitan prince, a Palatine count, a French nobleman, an English baron, a Scottish lord, and the nephew of the duke of Saxony—and Portia criticizes their many hilarious faults. For instance, she describes the Neapolitan prince as being too fond of his horse, the Palatine count as being too serious, the Englishman as lacking any knowledge of Italian or any of the other languages Portia speaks, and the German suitor of drunkenness. Each of these suitors has left without even attempting a guess for fear of the penalty for guessing wrong. This fact relieves Portia, and both she and Nerissa remember Bassanio, who has visited once before, as the suitor most deserving and worthy of praise. A servant enters to tell Portia that the prince of Morocco will arrive soon, news that Portia is not at all happy to hear.

Act I, scene ii introduces Portia, the heroine of the play, and establishes the casket test through which she will find a husband. After we see more of Portia, her compliance with her dead father's instructions may seem odd, as she proves to be an extremely independent and strong-willed character. However, her adherence to her father's will establishes an important aspect of her character: she plays by the rules. Her strict adherence to laws and other strictures makes her an interesting counterpoint to Shylock, the play's villain, whom we meet in the next scene.

Because Portia is such a fabulously wealthy heiress, the only men eligible to court her are from the highest end of the social strata. As a result, the competition between her suitors is international, including noblemen from various parts of Europe and even Africa. Portia's

description of her previous suitors serves as a vehicle for Shakespeare to satirize the nobleman of France, Scotland, Germany, and England for the amusement of his English audience. At the end of the scene, the arrival of the prince of Morocco is announced, introducing a suitor who is racially and culturally more distant from Portia than her previous suitors. The casket test seems designed to give an equal chance to all of these different noblemen, so the competition for Portia's hand and wealth in Belmont parallels the financial community of Venice, which is also organized to include men of many nations, Christian and non-Christian alike. Portia's remarks about the prince of Morocco's devilish skin color, however, show that she is rooting for a husband who is culturally and racially similar to her. In fact, she hopes to marry Bassanio, the suitor with the background closest to hers.

Summary: Act I, scene iii

Shylock, a Jewish moneylender, agrees to loan Bassanio three thousand ducats for a term of three months. Bassanio assures Shylock that Antonio will guarantee the loan, but Shylock is doubtful because Antonio's wealth is currently invested in business ventures that may fail. In the end, however, Shylock decides that Antonio's guarantee of the loan will be sufficient assurance, and asks to speak with him. When Antonio arrives, Shylock, in an aside, confesses his hatred for the man. Antonio, Shylock says, is a Christian who lends money without interest, which makes more difficult the practice of usury, in which money is lent out at exorbitant interest rates. *(Note: During this time, Jewish people in Venice had very few legal choices for employment. Being a usury was one of the few ways they could work. There was extreme antisemitism, or hatred of the Jewish people, which may tell you why Shylock is the way he is!)* Shylock is

3L English
Ms. Rossi

also incensed by Antonio's frequent public denunciations of Shylock. Antonio makes it clear to Shylock that he is not in the habit of borrowing or lending money, but has decided to make an exception on behalf of his friend Bassanio. Their conversation leads Antonio to chastise the business of usury, which Shylock defends as a way to thrive.

As he calculates the interest on Bassanio's loan, Shylock remembers the many times that Antonio has cursed him, calling him a "misbeliever, cut-throat, dog / And spit upon [his] Jewish gaberdine" (I.iii. 107–108). Antonio responds that he is likely to do so again, and insists that Shylock lend him the money as an enemy. *(Note how this cruelty is treated as normal. Antonio is being presented as a hero, and Shylock a villain. It's hard to not feel sorry for Shylock, knowing what a bully Antonio has been to him, just because he is Jewish!)* Such an arrangement, Antonio claims, will make it easier for Shylock to exact a harsh penalty if the loan is not repaid. Assuring Antonio that he means to be friends, Shylock offers to make the loan without interest. Instead, he suggests, seemingly in jest, that Antonio forfeit a pound of his own flesh should the loan not be repaid in due time *(which would mean death)*. Bassanio warns Antonio against entering such an agreement, but Antonio assures him that he will have no trouble repaying the debt, as his ships will soon bring him wealth that far exceeds the value of the loan. Shylock attempts to dismiss Bassanio's suspicions, asking what profit he stands to make by procuring a pound of Antonio's flesh. As Shylock heads off to the notary's office to sign the bond, Antonio remarks on Shylock's newfound generosity: "The Hebrew will turn Christian; he grows kind" (I.iii. 174). Bassanio remains suspicious of the arrangement, but Antonio reminds him that his ships will arrive within the next two months.

HISTORY READINGS

Voice from the Past • A Girl in the Mills

In 1823, a New England businessman named Francis Lowell built a model factory town at Lowell, Massachusetts. His idea was to hire young women from farming villages. He offered safe, attractive living quarters and opportunities for education as well as jobs. At the age of 13, Lucy Larcom became a mill girl. Years later, she described her life at Lowell.

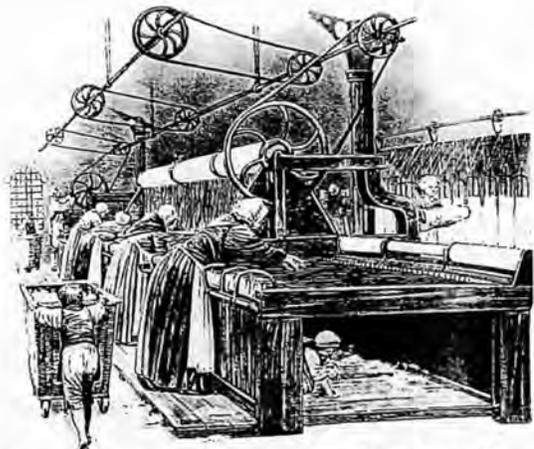
That children should be set to toil for their daily bread is always a pity; but in the case of my little workmates and myself there were imperative reasons, and we were not too young to understand them. And the regret with which those who loved us best consented to such an arrangement only made us more anxious to show that we really were capable of doing something for them and for ourselves. The novelty of trying to "earn our own living" took our childhood fancy; the work given us was light, and for a few weeks it seemed like beginning a new game with a new set of playmates. Replacing the full spools of bobbins with empty ones on spinning frames was the usual employment given to children. It was a process which required quickness but left unoccupied intervals . . . during which we were frequently allowed to run home.

1. (a) Why did Lucy and other mill girls probably go to work?
(b) Why was the idea of young women earning their living a novel one for its time?
2. How did the mill girls feel about their work?
3. In time, Lowell followed the grim path of factory towns in Britain. Describe how Lucy's account differs from the one given by Samuel Coulson on page 485.

A woman tends a spinning jenny as it makes thread.



The British inventor Isambard Kingdom Brunel (1806–1859) built railroads, bridges, tunnels, train stations, ports, and the world's largest ship.



Jobs in factories, such as textile mills, often required skill rather than strength. This gave women a chance to earn a living wage, both in the towns of the New England states and in the north of Britain.

The Industrial Revolution in Great Britain, 1850



Map Study

The industrial area in central England is known as the Midlands. What goods were produced there?

Industrialization spread to other countries.

For many years, the Industrial Revolution was limited mostly to the country of its birth, Great Britain. The reason was simple: Britain wanted to keep the secrets of industrialization to itself. Until 1825, it was against the law for engineers, mechanics, and toolmakers to leave the country. Until 1843, it was against the law for anyone in Britain to sell the new machines to people in other countries. Despite such laws, however, the ideas of the Industrial Revolution did spread beyond Britain.

The spread to the United States In 1789, a young British mill worker named Samuel Slater disguised himself as a farmer and boarded a ship headed for the United States. There he built a spinning machine from memory. The next year, a Rhode Island businessman named Moses Brown began work on a factory to house Slater's ma-

chines. In 1793, this factory—the first one in the United States—opened for business in Pawtucket, Rhode Island.

Early factories in the United States made only thread. The thread was then given to weavers who worked in their homes. Later, mills combined the spinning of thread with the weaving of cloth. The number of mills grew slowly at first and then more rapidly. By 1850, they had spread over much of the northeastern United States.

The spread to Europe Industry made little headway on the European continent before 1815. The French Revolution and the Napoleonic wars disrupted business all over Europe. By the time peace returned, Britain had a commanding lead.

Goods from Britain's factories flooded European markets. British woollens and cottons were much cheaper than anything textile workers in Europe could make by hand. As a result, many European spinners and weavers found themselves out of work. The countries along the North Sea coast were especially hard hit.

Belgium was one of the first countries in Europe to respond to the British challenge. Like Britain, Belgium had good supplies of coal and fine waterways for transportation. At first, the know-how to build industrial machines in Belgium came from British workers who left England illegally. In 1799, a British carpenter named William Cockerill began building cotton-spinning machines in Belgium while it was still under French rule. Later, Cockerill's sons opened factories that turned out steam engines, locomotives, and other machinery.

Soon, industrialized "islands" began to dot the European landscape. Among these areas were the coal-rich Ruhr Valley in northwestern Germany and the Po Valley in northern Italy. Cities such as Milan, Frankfurt, and Lyons expanded rapidly on the continent during the middle 1800's.

Britain led the world in industry.

Despite such growth, no other European country came close to rivaling Britain as an industrial power before 1850. In 1850, Britain still produced most of the world's iron and coal. British factories and mills accounted for 70 percent of Europe's cotton cloth production.

Yet another measure of British dominance was railroad development. With 9,797 miles of track in operation in 1850, Britain had more railroad lines than France, Russia, Austria, and all the German and Italian states combined. With its highly developed industrial economy and splendid merchant fleet, Britain made foreign trade a major feature of its economy. During the 1840's, the value of British exports increased at an amazing rate. Little wonder that the country earned the title of "workshop of the world."

Goldstein, Phyllis, ed. *World History: Perspectives on the Past*. Lexington: D.C. Heath and Company, 1988. Print.

3L History Reading 72 – Spread of Industrialization

The steam engine proved more versatile than its inventors first imagined. In 1807 the American Robert Fulton put one on board a boat on New York's Hudson River, opening a whole new era of water transportation. European shipbuilders then began the construction of steamboats to ply the rivers of the continent.

The next frontier was the ocean. In 1838 a steamship, the *Great Western*, crossed the Atlantic in 15 days. Two years later Samuel Cunard's line started regular service to the United States from Europe. By 1870 over 3,000 steamships registered under the British flag. Remarkably there was still an equal number of sailing vessels, for tradition died hard on the sea. From 1815 to 1890 the elegant clipper ship ruled the waves. Then the steel hull and screw propeller made sailing vessels obsolete.

Progress in communications paralleled the advances in other fields. In 1837 the telegraph first appeared, proving that a message could travel on a wire over long distances. Soon afterward technology was sufficiently advanced that it became feasible to lay a cable across the Atlantic. Its success, demonstrated in 1866, brought Europe and North America together, allowing information to pass between the two continents in a matter of minutes.

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Manufacturing

Inventions tend to build upon one another. When a better way was found to make a new invention or to increase efficiency in one field, the technology breakthrough was transferred to other means of production.

By far the iron and steel industry profited most from technological improvements. Between 1830 and 1845 British mills increased their output 300%. This advance can be traced to the use of coke rather than coal in smelting the ore. Coke caused the ore to liquify much faster. Later Henry Bessemer improved the process, creating a hotter furnace, so that steel production increased even further. By 1870 factories in Great Britain turned out 500,000 tons of metal as orders for the commodity multiplied.

Along with the continuing increase in steel production, demand for other metals soared. Copper, used since ancient times to alloy bronze and brass, became essential for making wire in the electrical industry. Lead and zinc, also known for centuries, had new uses. In 1883 aluminum, made from bauxite ore, came on line. Tin, when covered with iron, made the tin can indispensable in every household. Although most of these metals were found in Europe, some were not. As they became essential to industry, the western nations sought them in distant lands, contributing to the search for colonies.

A by-product of steel making was coal gas. By 1830 British housewives cooked with gas, and in a few years cities throughout Europe and the Americas used it to light up the night.

Other industries developed at a fast pace, making products more plentiful, cheaper, and usually better. Among these were farm vehicles, shoes, printing presses, glass, and food products.

In 1839 photography developed thanks to Louis Daguerre's experiments. Charles Goodyear, in that same year, discovered how rubber could be used to make a large number of household objects. The armaments industry so expanded with the invention of new weapons and munitions that warfare took on a much more deadly dimension. Petroleum products, for use in making kerosene and cleaning fluids, then appeared on the scene. In 1870 the world consumed 5,500,000 barrels of oil, and only ten years later that number reached 30,000,000 barrels.

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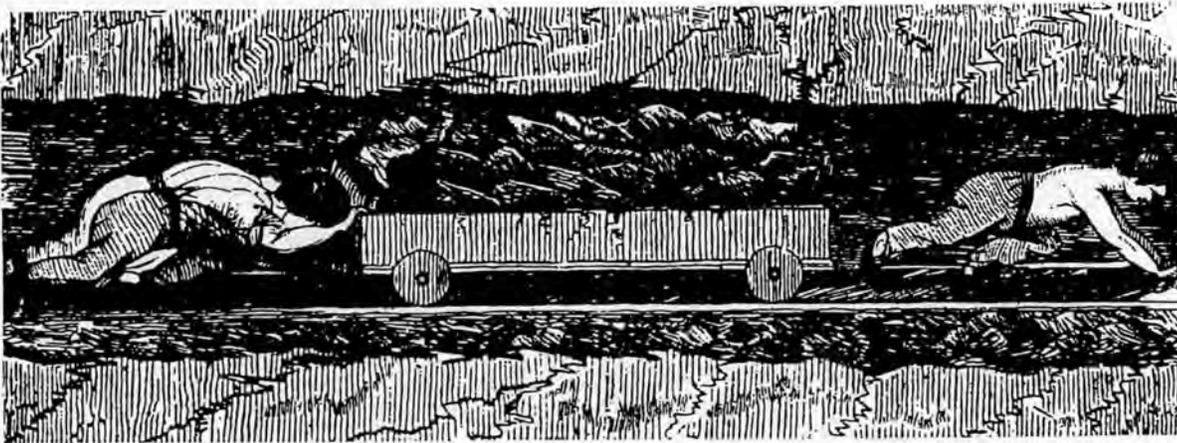
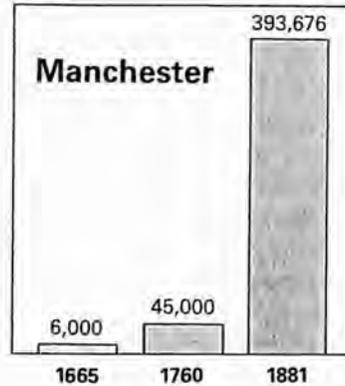
P10

3L History Reading 73 – Changes in Society

Which town was largest in 1685? In 1881? From information in the text and on the map (page 482), what geographic feature helped the latter?

The Growth of Seven British Cities

	1685	1760	1881
Liverpool	4,000	35,000	555,425
Manchester	6,000	45,000	393,676
Birmingham	4,000	30,000	400,757
Leeds	7,000	(not known)	309,126
Sheffield	4,000	20,000	284,410
Bristol	29,000	100,000	206,503
Nottingham	8,000	17,000	111,631



Child labor was one of the most shocking abuses of the early Industrial Revolution. Perhaps the worst conditions were in the mines, where boys and girls dragged cartloads of coal through dark, cramped passages.

Daily Life • A City Police Force

Crime flourished in the fast-growing industrial cities. In 1829, Sir Robert Peel, a British statesman, organized the first modern police force in the world. These London policemen wore blue uniforms, carried rattles to call for help, and brandished billy clubs. Other cities soon copied the idea of a municipal police force. The result was an immediate drop in the crime rate.

Londoners coined the term *bobbies* for these policemen (after Sir Robert's nickname). British police officers are still known as bobbies today.



Industry changed ways of life.

4

As the pace of industrialization quickened, life changed in many ways. By the 1800's, more people could afford to heat their homes with coal from Wales and to dine on Scottish beef. They had more clothing too, much of it from cloth made on power looms in Manchester or Liverpool. Industrialization affected every part of life.

More people lived in cities.

Perhaps the most obvious change brought about by the Industrial Revolution was in where people lived. For centuries, most Europeans had lived in rural areas. A much smaller share had lived in towns and cities. Now that balance began to shift toward the cities.

The growth of the factory system brought people flocking into cities and towns. Between 1800 and 1850, the number of European cities with more than 100,000 inhabitants rose from 22 to 47. Most of Europe's urban areas at least doubled in population during this period. Some, such as Glasgow and Berlin, tripled or even quadrupled in size.

Factories tended to develop in clusters because entrepreneurs built near sources of power. Major new industrial centers sprang up between the coal-rich area of southern Wales and the Clyde River valley in Scotland (map, page 482). The biggest of these centers developed in England, from the Midlands north along the Pennines and on the northwest and northeast coasts.

London, of course, remained the most important city in Great Britain. Among other things, it was Europe's largest city (twice as populous as Paris, its nearest rival) and was growing larger all the time. This population gave London a vast labor pool for industry. Though lacking nearby sources of raw materials, London thus shared in Britain's industrial growth.

However, new cities were challenging London's leadership. Perhaps the most famous of the new industrial cities was Manchester, which along with the port of Liverpool formed the hub of Britain's cotton industry. "What Manchester thinks today, London thinks tomorrow," declared the city's proud entrepreneurs.

The Industrial Revolution changed working conditions.

Faced with such living conditions, why did people continue to pour into Britain's cities from the countryside? One reason was that life was harsh in the country too. The cities at least offered plenty of jobs. Moreover, a factory worker could hope for regular wages, rain or shine. In contrast, a spell of bad weather could wipe out a farmer's whole crop.

Families in the the country were used to working from dawn to dusk. Parents expected their children to work long and hard as well. The family worked as a unit, both at farm tasks and at home industries such as spinning and weaving. When such a family moved to town, however, they found that working conditions were different.

In the city, work hours depended on the factory bell or whistle, not on the season or the weather. Factory owners wanted to keep their machines running for as many hours a day as possible. As a result, the average worker spent 14 hours a day at the job, 6 days a week. Instead of changing with the seasons, the work was the same week after week, year after year. Workers could not change their pace; they had to keep up with the machines.

Industry also posed new dangers in work. Factories were seldom well-lit or clean. Machines injured workers in countless different ways—a boiler might explode or a drive belt might catch an arm. The most dangerous conditions of all were found in the coal mines, where frequent accidents, damp conditions, and the constant breathing of coal dust combined to make the average miner's life span ten years shorter than that of other workers.

Children suffered in mills and mines.

In the factories as on the farms, whole families worked. Again, however, there were important differences. In the country, children worked side by side with their parents. In factories, family members often worked separately. In such cases, young children were at the mercy of impersonal overseers. During the early 1800's, children as young as six or seven years worked long hours in factories and mines.

Children were especially useful in the mines, where small size was a great advantage in moving about in narrow shafts and tunnels. Many were employed as "trappers," whose job was to keep

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3L History Reading 73 – Changes in Society

the ventilation shafts in the mines clear. "It is a most painful thing to contemplate the dull, dungeon-like life these little creatures are doomed to spend," noted one mine visitor, "a life for the most part passed in solitude, damp, and darkness."

Orphan children faced the worst plight. Factory owners employed large numbers of these children in return for room and board. The child workers were seldom fed properly. Their lodgings might be nothing more than piles of straw beside the machines at which they worked 12 or 14 hours a day.

In 1831, Parliament set up a committee to investigate abuses of child labor. A worker named Samuel Coulson told the committee that in busy times, his small daughters started work at 3 A.M. and ended at 10:30 P.M. What rest periods did they have during those 19 hours? "Breakfast a quarter of an hour, and dinner half an hour, and drinking a quarter of an hour."

As a result of this committee's findings, Parliament passed the Factory Act of 1833. The new law made it illegal to hire children under 9 years old. Children from the ages of 9 to 13 were not to work more than 8 hours a day. Young people from 14 to 18 could not be required to work more than 12 hours. In 1842, the Mines Act placed similar limits on the work of children in mining.

While such acts limited the worst abuses, children continued to do exhausting work, often under unhealthy or dangerous conditions. They worked because the money they earned was essential to

their families. In 1825, a whole family—husband, wife, and three children—could earn about one British pound a week if they all worked in the mines. How much did the family need to live in any kind of comfort? One writer at the time estimated two pounds. Trapped by poverty, many parents could hardly consider allowing their children *not* to work.

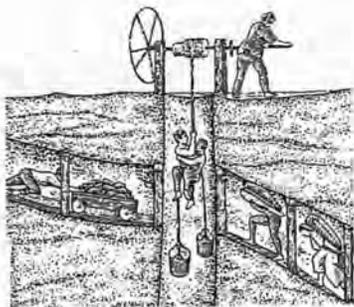
The middle class expanded.

Although poverty gripped the lower class, wealth was spreading among other people in Britain. The Industrial Revolution brought enormous amounts of money into the country. Most of this wealth went into the pockets of factory owners, shippers, and merchants. These people made up a growing middle class.

This new middle class greatly changed the social structure of Great Britain. In the past, landowners and aristocrats occupied the top position in British society. They had the most wealth and the most power. Now, some factory owners and merchants were wealthier than the landowners and aristocrats. In an effort to be like the upper class, the newly rich families bought large estates and lived in high style.

Despite such attempts, there were still important social distinctions between the two classes. Landowners looked down on those who had made their fortunes in the "vulgar" business world. Not until late in the 1800's were rich entrepreneurs considered the social equals of the lords of the countryside.

Gradually, a middle class that was neither rich nor poor began to emerge. This group included an upper middle class of government employees, doctors, lawyers, and those who held management positions in factories, mines and shops. There was also a lower middle class made up of factory overseers and such skilled workers as toolmakers, mechanical drafters, and printers. These people earned incomes that gave them a comfortable standard of living.



Many children worked in mines and factories, but this was banned in most countries by 1900.

Goldstein, Phyllis, ed. *World History: Perspectives on the Past*. Lexington: D.C. Heath and Company, 1988. Print.

34+

One Thousand **POUNDS** REWARD.

WHEREAS on the Night of Sunday the 19th
of January, 1812, the Mill belonging to
Messrs. Oates, Wood and Smithson,
Situate at Oatlands, near Leeds, was maliciously set on Fire---And on the Morning of the
Twenty-fourth of March, 1812, several Persons entered the MILL of
MESSRS WM THOMPSON & BROTHERS,
OF Rawdon, destroyed the SHEARERS and MACHINERY therein---And on the Morning of the 25th, some Persons
or Persons broke into the Press Shop of
Messrs. Dickinson, Carr and Co.
SITUATE IN WATER-LANE, LEEDS, AND
Wantonly destroyed Cloth,
TO A CONSIDERABLE AMOUNT.

1000 POUNDS REWARD

is hereby offered to any Person or Persons who will give such Information
as shall lead to the Conviction of any of the Offenders, or Application at
the Town Clerk's Office, or to any of the above-mentioned Sufferers.

MARCH 25, 1812.

PRINTED AT THE INTELLIGENCER'S OFFICE, LEEDS, BY GEORGE WELSH, JUNR.



http://ludditebicentenary.blogspot.com/2012_03_01_archive.html

<https://en.wikipedia.org/wiki/Luddite#/media/File:Luddite.jpg>

Luddite is a member of the organized bands of 19th-century English handicraftsmen who rioted for the destruction of the textile machinery that was displacing them. The movement began in the vicinity of Nottingham toward the end of 1811 and in the next year spread to Yorkshire, Lancashire, Derbyshire, and Leicestershire.

The "Ludds," or Luddites, were generally masked and operated at night. Their leader, real or imaginary, was known as King Ludd, after a probably mythical Ned Ludd. They eschewed violence against persons and often enjoyed local support. In 1812 a band of Luddites was shot down under the orders of a threatened employer named Horsfall (who was afterward murdered in reprisal). The government of Robert Banks Jenkinson, 2nd earl of Liverpool, instituted severe repressive measures culminating in a mass trial at York in 1813, which resulted in many hangings and transportations. Similar rioting in 1816 was caused by the depression that followed the Napoleonic Wars; but the movement was soon ended by vigorous repression and reviving prosperity.

The term Luddite is now used broadly to signify individuals or groups opposed to technological change.

<https://www.britannica.com/event/Luddite>

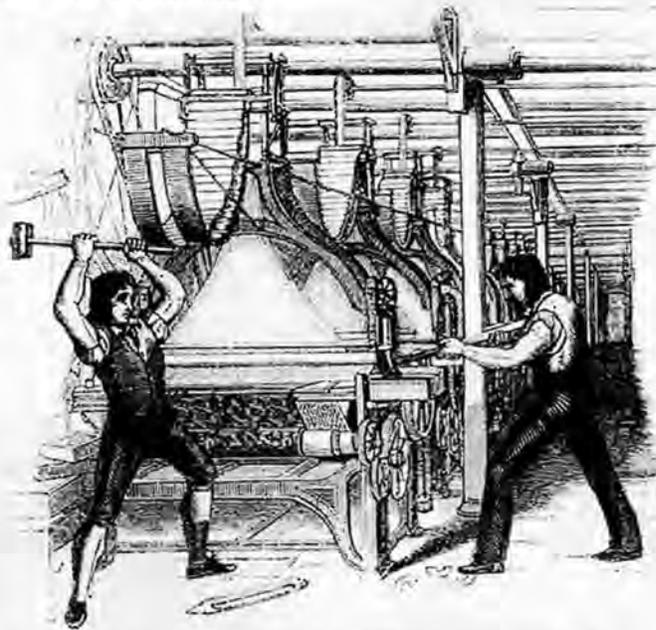
Excerpt from:

What the Luddites Really Fought Against

The label now has many meanings, but when the group protested 200 years ago, technology wasn't really the enemy

- By Richard Conniff
- *Smithsonian* magazine, March 2011,
-

The word “Luddite,” handed down from a British industrial protest that began 200 years ago this month, turns up in our daily language in ways that suggest we’re confused not just about technology, but also about who the original Luddites were and what being a modern one actually means.



Despite their modern reputation, the original Luddites were neither opposed to technology nor inept at using it. Many were highly skilled machine operators in the textile industry. Nor was the technology they attacked particularly new. Moreover, the idea of smashing machines as a form of industrial protest did not begin or end with them. In truth, the secret of their enduring reputation depends less on what they did than on the name under which they did it. You could say they were good at branding.

The Luddite disturbances started in circumstances at least superficially similar to our own. British working families at the start of the 19th century were enduring economic upheaval and widespread unemployment. A seemingly endless war against Napoleon’s France had brought “the hard pinch of poverty,” wrote Yorkshire historian Frank Peel, to homes “where it had hitherto been a stranger.” Food was scarce and rapidly becoming more costly. Then, on March 11, 1811, in Nottingham, a textile manufacturing center, British troops broke up a crowd of protesters demanding more work and better wages.

That night, angry workers smashed textile machinery in a nearby village. Similar attacks occurred nightly at first, then sporadically, and then in waves, eventually spreading across a 70-mile swath of northern England from Loughborough in the south to Wakefield in the north. Fearing a national movement, the government soon positioned thousands of soldiers to defend factories. Parliament passed a measure to make machine-breaking a capital offense.

But the Luddites were neither as organized nor as dangerous as authorities believed. They set some factories on fire, but mainly they confined themselves to breaking machines. In truth, they inflicted less violence than they encountered. In one of the bloodiest incidents, in April 1812, some 2,000 protesters mobbed a mill near Manchester. The owner ordered his men to fire into the crowd, killing at least 3 and wounding 18. Soldiers killed at least 5 more the next day.

Earlier that month, a crowd of about 150 protesters had exchanged gunfire with the defenders of a mill in Yorkshire, and two Luddites died. Soon, Luddites there retaliated by killing a mill owner, who in the thick of the protests had supposedly boasted that he would ride up to his britches in Luddite blood. Three Luddites were hanged for the murder; other courts, often under political pressure, sent many more to the gallows or to exile in Australia before the last such disturbance, in 1816.

One technology the Luddites commonly attacked was the stocking frame, a knitting machine first developed more than 200 years earlier by an Englishman named William Lee. Right from the start, concern that it would displace traditional hand-knitters had led Queen Elizabeth I to deny Lee a patent. Lee’s invention, with gradual

3L History Reading 74 – The Luddites

improvements, helped the textile industry grow—and created many new jobs. But labor disputes caused sporadic outbreaks of violent resistance. Episodes of machine-breaking occurred in Britain from the 1760s onward, and in France during the 1789 revolution.

As the Industrial Revolution began, workers naturally worried about being displaced by increasingly efficient machines. But the Luddites themselves “were totally fine with machines,” says Kevin Binfield, editor of the 2004 collection *Writings of the Luddites*. They confined their attacks to manufacturers who used machines in what they called “a fraudulent and deceitful manner” to get around standard labor practices. “They just wanted machines that made high-quality goods,” says Binfield, “and they wanted these machines to be run by workers who had gone through an apprenticeship and got paid decent wages. Those were their only concerns.” So if the Luddites weren’t attacking the technological foundations of industry, what made them so frightening to manufacturers? And what makes them so memorable even now? Credit on both counts goes largely to a phantom.

Ned Ludd, also known as Captain, General or even King Ludd, first turned up as part of a Nottingham protest in November 1811, and was soon on the move from one industrial center to the next. This elusive leader clearly inspired the protesters. And his apparent command of unseen armies, drilling by night, also spooked the forces of law and order. Government agents made finding him a consuming goal. In one case, a militiaman reported spotting the dreaded general with “a pike in his hand, like a serjeant’s halbert,” and a face that was a ghostly unnatural white.

In fact, no such person existed. Ludd was a fiction concocted from an incident that supposedly had taken place 22 years earlier in the city of Leicester. According to the story, a young apprentice named Ludd or Ludham was working at a stocking frame when a superior admonished him for knitting too loosely. Ordered to “square his needles,” the enraged apprentice instead grabbed a hammer and flattened the entire mechanism. The story eventually made its way to Nottingham, where protesters turned Ned Ludd into their symbolic leader.

The Luddites, as they soon became known, were dead serious about their protests. But they were also making fun, dispatching officious-sounding letters that began, “Whereas by the Charter”...and ended “Ned Lud’s Office, Sherwood Forest.” Invoking the sly banditry of Nottinghamshire’s own Robin Hood suited their sense of social justice. The taunting, world-turned-upside-down character of their protests also led them to march in women’s clothes as “General Ludd’s wives.”

They did not invent a machine to destroy technology, but they knew how to use one. In Yorkshire, they attacked frames with massive sledgehammers they called “Great Enoch,” after a local blacksmith who had manufactured both the hammers and many of the machines they intended to destroy. “Enoch made them,” they declared, “Enoch shall break them.”

This knack for expressing anger with style and even swagger gave their cause a personality. Luddism stuck in the collective memory because it seemed larger than life. And their timing was right, coming at the start of what the Scottish essayist Thomas Carlyle later called “a mechanical age.”

People of the time recognized all the astonishing new benefits the Industrial Revolution conferred, but they also worried, as Carlyle put it in 1829, that technology was causing a “mighty change” in their “modes of thought and feeling. Men are grown mechanical in head and in heart, as well as in hand.” Over time, worry about that kind of change led people to transform the original Luddites into the heroic defenders of a pretechnological way of life. “The indignation of nineteenth-century producers,” the historian Edward Tenner has written, “has yielded to “the irritation of late-twentieth-century consumers.”

Richard Conniff, a frequent contributor to *Smithsonian*, is the author, most recently, of *The Species Seekers*.

<http://www.smithsonianmag.com/history-archaeology/What-the-Luddites-Really-Fought-Against.html?c=y&page=3>

LATIN INSTRUCTIONS AND READINGS

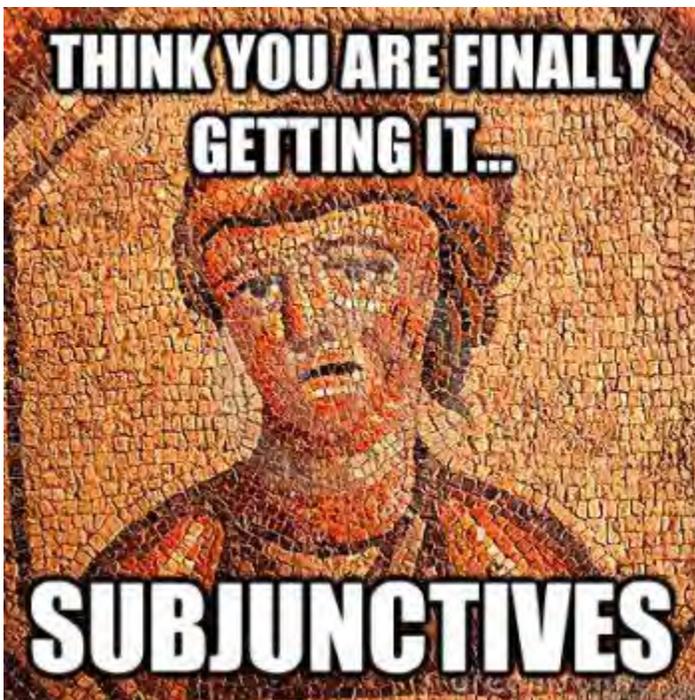
3L Latin Distance Learning

— Week of May 22-28 —

Directions:

- Study the new Ch. 29 Vocab. You **do not** need to make a foldable, but *do* pay special attention to the “degree words”: *tantus*, *ita*, *sic*, and *tam*
- Carefully read Ch. 29 Grammar Notes Part II, where take a closer look at another use of the subjunctive mood: “result clauses”!
- Be sure to review the grammar notes from the past few weeks as well (downloadable from the SOL Latin section of parnassteachers.com if you need a new copy)
- On the **LATIN EXERCISES** page, complete the ODD numbered sentences; the EVENS are optional/enrichment!

As always, ***please*** reach out to me with any questions you have (including the “enrichment” work)!



← Avoid Subjunctive-Sadness!
Make sure to review not just how to form the subjunctive, but how to translate it as well!

CH. 29 VOCAB

- fātum, fātī, n.**, *fate; death* (fatal, fatalism, fatality, fateful, fairy; **fābula** and **fāma** are from the same stem)
- ingénium, ingénī, n.**, *nature, innate talent* (ingenuity, genius, genial, congenial; cf. **genus, gēns**, and **gignere, to create, give birth to**)
- moénia, moénium, n. pl.**, *walls of a city* (munitions, ammunition; cf. **mūnire, to fortify**)
- nāta, nātae, f.**, *daughter* (prenatal, postnatal, Natalie; cf. **nātūra**)
- ōsculum, ōsculī, n.**, *kiss* (osculate, osculation; cf. **ōs**)
- sīdus, sīderis, n.**, *constellation, star* (sidereal, consider, desire)
- dīgnus, dīgna, dīgnum + abl.**, *worthy, worthy of* (dignify, dignity from **dignitās**, indignation from **indignātiō**, deign, disdain, dainty)
- dūrus, dūra, dūrum**, *hard, harsh, rough, stern, unfeeling, hardy, difficult* (dour, durable, duration, during, duress, endure, obdurate)
- tāntus, tānta, tāntum**, *so large, so great, of such a size* (tantamount; do not confuse with the adv. **tantum, only**)
- dēnique, adv.**, *at last, finally, lastly*
- íta, adv.** used with adjs., verbs, and advs., *so, thus*
- quīdem, postpositive adv.**, *indeed, certainly, at least, even; nē . . . quīdem, not . . . even* (do not confuse with **quīdam, certain**)
- sīc, adv.** most commonly with verbs, *so, thus (sic)*
- tam, adv.** with adjs. and advs., *so, to such a degree; tam . . . quam, so . . . as; tam-
quam, as it were, as if, so to speak*
- vērō, adv.**, *in truth, indeed, to be sure, however* (very, verily, etc.; cf. **vērus, vēritās**)
- cóndō, cóndere, cóndidī, cónditum**, *to put together or into; store; found, establish*
(= **con-** + **dō, dare**; condiment, abscond, recondite)
- conténdō, conténdere, conténdī, conténtum**, *to strive, struggle, contend; hasten*
(contender, contentious; cf. **tendō, to stretch, extend**)
- mólliō, mollīre, mollīvī, mollītum**, *to soften; make calm or less hostile* (mollescent, mollify, mollusk, emollient; cf. **mollis, soft, mild**)
- púgnō, pugnāre, pugnāvī, pugnātum**, *to fight* (pugnacious, impugn, pugilist)
- respóndeō, respóndere, respóndī, respónsum**, *to answer* (respond, response, responsive, responsibility, correspond)
- súrgō, súrgere, surrēxī, surrēctum**, *to get up, arise* (surge, resurgent, resurrection, insurgent, insurrection, source, resource)

Latin Chapter 29 Grammar Notes II

Result Clauses

Definition: shows the result of the main action of the verb.
(**purpose** clauses [Ch. 28] ask, “why was the action done?”,
result clauses ask, “what was the outcome of the action?”)

Examples: It is raining **so** hard *that the streets are flooding*.
She studied Latin with **such** diligence *that she knew it like a Roman*.

Recognition: 1) introduced by **ut** followed by a subjunctive.
2) main clause usually has a “degree” adverb (**ita, tam, sic**) or adjective (**tantus**)
that signals a result is coming.
a negative result will have **ut** with a negative word (**nōn, nihil, nēmō, numquam, nūllus**; cf. purpose clauses which use **nē** for negation)

Translation: the subjunctive verb in a result clause is translated like an indicative.

PRACTICE. Look at the difference between clauses, and use this as your guide for your exercises!

(**result**) tam strēnuē studēbat ut examen vinceret.

(**purpose**) strēnuē studēbat ut examen vinceret.

- Notice that the **ONLY** difference between these two sentences is that the first has the adverb *tam* (“so ___”). A *result clause* will almost always include one of these “degree” adverbs in the main clause, or sometimes a “degree” adjective like *tantus, -a, -um*
- Both phrases are loosely translated below. Look at the differences in translation:
 - **tam** strēnuē studēbat ut examen vinceret = “She studied **so** hard that she passed the test.”
 - strēnuē studēbat ut examen vinceret = “She studied hard **in order to** pass the test.”

So, your rule of thumb: if the main clause contains *tantus, ita, sic, or tam*, it will be a result clause! ☺

SPANISH READING AND INSTRUCTIONS

Gramática

Repaso

Intructions

Indirect object pronouns

Remember that an indirect object tells to whom or for whom an action is performed.

Indirect object pronouns are used to replace or accompany an indirect object noun.

Nuestros profesores no nos permitían beber refrescos en clase.

Sus abuelos siempre les daban regalos a los niños.

Singular	Plural
me (to / for) me	nos (to / for) us
te (to / for) you (familiar)	os (to / for) you (familiar)
le (to / for) him, her, you (formal)	les (to / for) them, you (formal)

- Because le and les have more than one meaning, you can make the meaning clear by adding a + name, noun, or pronoun.

Lolita siempre les decía la verdad a sus padres.

Lolita siempre les decía la verdad a ellos.

- Like direct object pronouns and reflexive pronouns, indirect object pronouns are placed right before the verb or attached to the infinitive.

Siempre le quería comprar dulces a su hija.

Siempre quería comprarle dulces a su hija.

3L Instructions / Vocab.
Sra. Serrano

Week 8
May 22nd - 28th

Repaso del capítulo 4A

To prepare for the test, check to see if you...

- know the new vocabulary and grammar
- can perform the tasks on p. 209

Vocabulario y gramática

3L

1

to name toys	
los bloques	blocks
la colección, pl. las colecciones	collection
la cuerda	rope
el dinosaurio	dinosaur
la muñeca	doll
el muñeco	action figure
el oso de peluche	teddy bear
el tren eléctrico	electric train
el triciclo	tricycle
to name animals	
el pez, pl. los peces	fish
la tortuga	turtle
to discuss things you used to do	
coleccionar	to collect
molestar	to bother
pelearse	to fight
saltar (a la cuerda)	to jump (rope)
to name places	
la guardería infantil	daycare center
el patio de recreo	playground

2

to explain your actions	
de niño, -a	as a child
de pequeño, -a	as a child
de vez en cuando	once in a while
mentir (e → ie)	to lie
obedecer (c → ze)	to obey
ofrecer (c → ze)	to offer
permitir	to permit, to allow
por lo general	in general
portarse bien / mal	to behave well / badly
todo el mundo	everyone
el vecino, la vecina	neighbor
la verdad	truth

3

Adjectives

to describe what someone was like	
bien educado, -a	well-behaved
consentido, -a	spoiled
desobediente	disobedient
generoso, -a	generous
obediente	obedient
tímido, -a	timid
travieso, -a	naughty, mischievous
other useful words	
la moneda	coin
el mundo	world

4

imperfect of ir
I used to go

iba	íbamos
ibas	ibais
iba	iban

5

imperfect of jugar
I used to play

jugaba	jugábamos
jugabas	jugabais
jugaba	jugaban

6

imperfect of ser
I used to be

era	éramos
eras	erais
era	eran

7

imperfect of tener / vivir
I used to have

tenía	teníamos
tenías	teniais
tenía	tenían

8

indirect object pronouns

me (to/ for) me	nos (to/ for) us
te (to/ for) you	os (to/ for) you
le (to/ for) him, her, you (formal)	les (to/ for) them, you (formal)

For Vocabulario adicional, see pp. 498-499.

Imperfect of VER Irregular
Veía | veíamos

SCIENCE READING

Darwin's Theory

Reading Preview

Key Concepts

- What important observations did Darwin make on his voyage?
- What hypothesis did Darwin make to explain the differences between similar species?
- How does natural selection lead to evolution?

Key Terms

- species • fossil • adaptation
- evolution • scientific theory
- natural selection • variation

Target Reading Skill

Relating Cause and Effect In a graphic organizer, identify factors that cause natural selection.

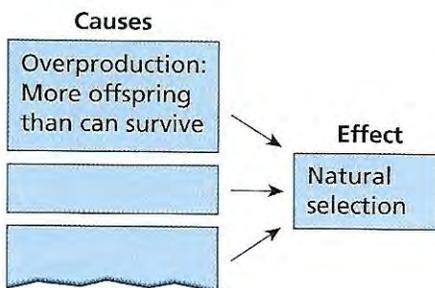


FIGURE 1

The Voyage of the *Beagle*

Charles Darwin sailed on the *Beagle* to the Galápagos Islands. He saw many unusual organisms on the islands, such as giant tortoises and the blue-footed booby.

Interpreting Maps After leaving South America, where did the *Beagle* go?

Replica of the *Beagle* ►

Lab
zone

Discover Activity

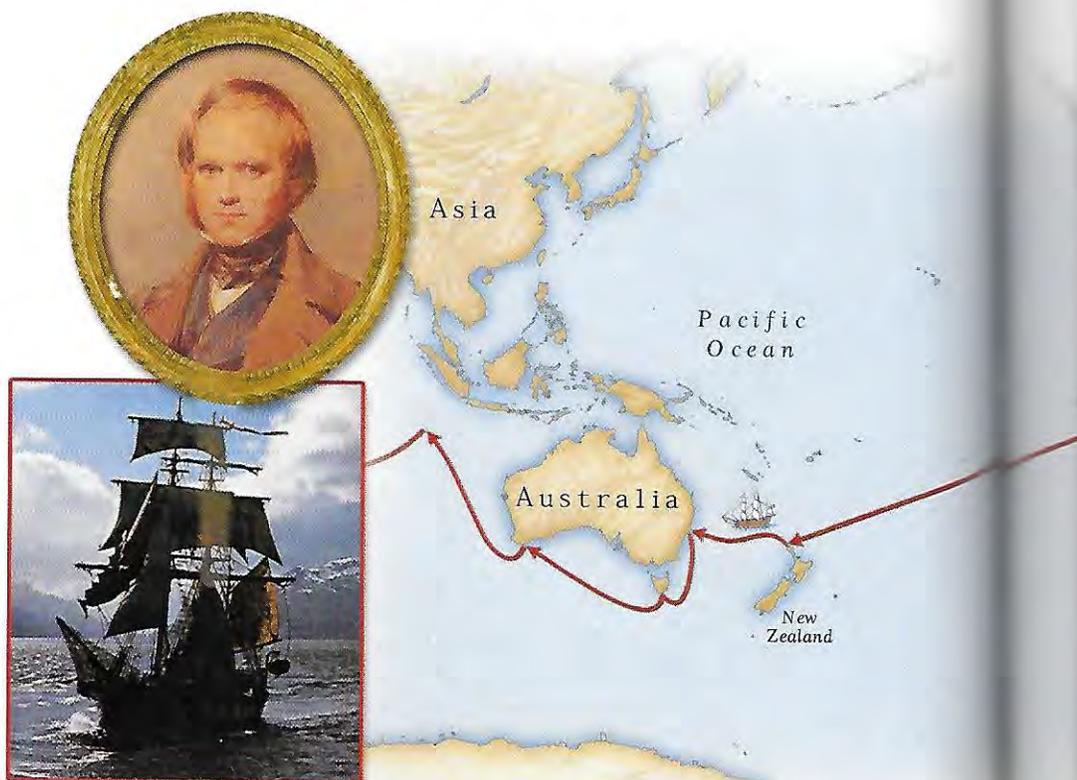
How Do Living Things Vary?

1. Use a ruler to measure the length and width of 10 sunflower seeds. Record each measurement.
2. Now use a hand lens to carefully examine each seed. Record each seed's shape, color, and number of stripes.

Think It Over

Classifying In what ways are the seeds in your sample different from one another? In what ways are they similar? How could you group the seeds based on their similarities and differences?

In December 1831, the British ship *HMS Beagle* set sail from England on a five-year trip around the world. On board was a 22-year-old named Charles Darwin. Darwin eventually became the ship's naturalist—a person who studies the natural world. His job was to learn as much as he could about the living things he saw on the voyage. Darwin observed plants and animals he had never seen before. He wondered why they were so different from those in England. Darwin's observations led him to develop one of the most important scientific theories of all time: the theory of evolution by natural selection.



Darwin's Observations

As you can see in Figure 1, the *Beagle* made many stops along the coast of South America. From there, the ship traveled to the Galápagos Islands. Darwin observed living things as he traveled. He thought about relationships among those organisms. **Darwin's important observations included the diversity of living things, the remains of ancient organisms, and the characteristics of organisms on the Galápagos Islands.**

Diversity Darwin was amazed by the tremendous diversity of living things that he saw. In Brazil, he saw insects that looked like flowers and ants that marched across the forest floor like huge armies. In Argentina, he saw sloths, animals that moved very slowly and spent much of their time hanging in trees.

Today scientists know that organisms are even more diverse than Darwin could ever have imagined. Scientists have identified more than 1.7 million species of organisms on Earth. A **species** is a group of similar organisms that can mate with each other and produce fertile offspring.

Fossils Darwin saw the fossil bones of animals that had died long ago. A **fossil** is the preserved remains or traces of an organism that lived in the past. Darwin was puzzled by some of the fossils he observed. For example, he saw fossil bones that resembled the bones of living sloths. The fossil bones were much larger than those of the sloths that were alive in Darwin's time. He wondered what had happened to the giant creatures from the past.



Reading
Checkpoint

What is a fossil?

Discovery
CHANNEL
SCHOOL™

Changes Over Time

Video Preview

▶ Video Field Trip

Video Assessment



▲ Giant tortoise



▲ Blue-footed booby



Galápagos Organisms

In 1835, the *Beagle* reached the Galápagos Islands. Darwin observed many unusual life forms on these small islands, such as giant tortoises, or land turtles. Some of these tortoises could look him in the eye! After returning to England, Darwin thought about the organisms he had seen. He compared Galápagos organisms to organisms that lived elsewhere. He also compared organisms on different islands in the Galápagos group. He was surprised by some of the similarities and differences he saw.

Comparisons to South American Organisms Darwin found many similarities between Galápagos organisms and those in South America. Many of the birds on the islands, including hawks, mockingbirds, and finches, resembled those on the mainland. Many of the plants were similar to plants Darwin had collected on the mainland.

However, there were important differences between the organisms on the islands and those on the mainland. The iguanas on the Galápagos Islands had large claws that allowed them to grip slippery rocks, where they fed on seaweed. The iguanas on the mainland had smaller claws. Smaller claws allowed the mainland iguanas to climb trees, where they ate leaves. You can see these differences in Figure 2.

From his observations, Darwin hypothesized that a small number of different plant and animal species had come to the Galápagos Islands from the mainland. They might have been blown out to sea during a storm or set adrift on a fallen log. Once the plants and animals reached the islands, they reproduced. Eventually, their offspring became different from their mainland relatives.



FIGURE 2

Comparing Iguanas

Iguanas on mainland South America (above) have smaller claws than iguanas on the Galápagos Islands. **Comparing and Contrasting** In what other ways are the iguanas different?



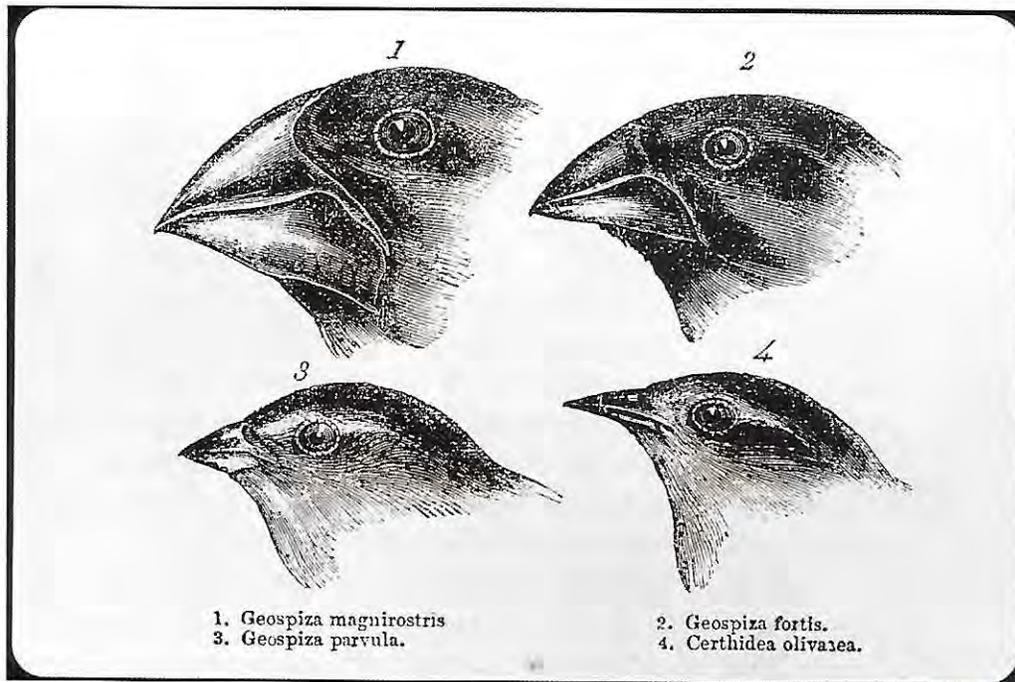


FIGURE 3
Galápagos Finches
 Darwin made these drawings of four species of Galápagos finches. The structure of each bird's beak is an adaptation related to the type of food the bird eats. **Comparing and Contrasting** Identify some specific differences in these finches' beaks.

Comparisons Among the Islands As he traveled from one Galápagos island to the next, Darwin also noticed many differences among organisms. For example, the tortoises on one island had dome-shaped shells. Those on another island had saddle-shaped shells. A government official in the islands told Darwin that he could tell which island a tortoise came from just by looking at its shell.

Adaptations Like the tortoises, the finches on the Galápagos were noticeably different from one island to the next. The most obvious differences were the varied sizes and shapes of the birds' beaks, as shown in Figure 3. An examination of the different finches showed that each species was well suited to the life it led. Finches that ate insects had narrow, needle-like beaks. Finches that ate seeds had strong, wide beaks.

Beak shape is an example of an **adaptation**, a trait that helps an organism survive and reproduce. The finches' beak structures help in obtaining food. Other adaptations help organisms avoid being eaten. For example, some plants, such as milkweed, are poisonous or have a bad taste. A variety of adaptations aid in reproduction. The bright colors of some flowers attract insects. When an insect lands on a flower, the insect may pick up pollen grains, which produce sperm. The insect then may carry the pollen grains to another flower, enabling fertilization to take place.



Reading Checkpoint

How did the beaks of Galápagos finches differ from one island to another?

Lab zone Try This Activity

Bird Beak Adaptations

Use this activity to explore adaptations in birds.

1. Scatter a small amount of bird seed on a paper plate. Scatter 20 raisins on the plate to represent insects.
2. Obtain a variety of objects such as tweezers, hair clips, and clothespins. Pick one object to use as a "beak."
3. See how many seeds you can pick up and drop into a cup in 10 seconds.
4. Now see how many "insects" you can pick up and drop into a cup in 10 seconds.
5. Use a different "beak" and repeat Steps 3 and 4.

Inferring What type of beak worked well for seeds? For insects? How are different-shaped beaks useful for eating different foods?

Evolution

After he returned to England, Darwin continued to think about what he had seen during his voyage on the *Beagle*. Darwin spent the next 20 years consulting with other scientists, gathering more information, and thinking through his ideas.

Darwin's Reasoning Darwin especially wanted to understand the different adaptations of organisms on the Galápagos Islands. Darwin reasoned that plants or animals that arrived on the Galápagos Islands faced conditions that were different from those on the mainland. Perhaps, Darwin hypothesized, the species gradually changed over many generations and became better adapted to the new conditions. The gradual change in a species over time is called **evolution**.

Darwin's ideas are often referred to as the theory of evolution. A **scientific theory** is a well-tested concept that explains a wide range of observations. From the evidence he collected, Darwin concluded that organisms on the Galápagos Islands had changed over time. However, Darwin did not know how the changes had happened.

Selective Breeding Darwin studied other examples of changes in living things to help him understand how evolution might occur. One example that Darwin studied was the offspring of animals produced by selective breeding. English farmers in Darwin's time used selective breeding to produce sheep with fine wool. Darwin himself had bred pigeons with large, fan-shaped tails. By repeatedly allowing only those pigeons with many tail feathers to mate, breeders had produced pigeons with two or three times the usual number of tail feathers. Darwin thought that a process similar to selective breeding might happen in nature. But he wondered what process selected certain traits.



Reading
Checkpoint

What is a scientific theory?



▲ Seattle Slew, great-grandfather of Funny Cide



Distorted Humor, ▲ father of Funny Cide



Funny Cide ▶

FIGURE 4

Selective Breeding

Race horses are selectively bred to obtain the trait of speed. Funny Cide's father, Distorted Humor, and great-grandfather, Seattle Slew, were known for their speed.



Overproduction

Turtles lay many eggs. Not all of the young will survive.

Variation

Each turtle has slightly different traits. For example, some turtles can move faster than others.

Natural Selection

In 1858, Darwin and another British biologist, Alfred Russel Wallace, each proposed an explanation for how evolution could occur in nature. The next year, Darwin described this mechanism in a book entitled *The Origin of Species*. In his book, Darwin proposed that evolution occurs by means of natural selection. **Natural selection** is the process by which individuals that are better adapted to their environment are more likely to survive and reproduce than other members of the same species. Darwin identified factors that affect the process of natural selection: overproduction, competition, and variations. Figure 5 and Figure 6 show how natural selection might happen in a group of turtles.

Overproduction Darwin knew that most species produce far more offspring than can possibly survive. In many species, so many offspring are produced that there are not enough resources—food, water, and living space—for all of them. Many female insects, for example, lay thousands of eggs. If all newly hatched insects survived, they would soon crowd out all other plants and animals. Darwin knew that this doesn't happen. Why not?

Variations As you learned in your study of genetics, members of a species differ from one another in many of their traits. Any difference between individuals of the same species is called a **variation**. For example, certain insects may be able to eat foods that other insects of their species avoid. The color of a few insects may be different from that of most other insects in their species.

FIGURE 5

Overproduction and Variation

Like actual sea turtles, the turtles in this illustration produce many more offspring than will survive. Some turtles are better adapted than others to survive in their environment.

Relating Cause and Effect *What adaptations might help young sea turtles survive?*

Lab
zone

Skills Activity

Making Models

Scatter 15 black buttons and 15 white buttons on a sheet of white paper. Have a partner time you to see how many buttons you can pick up in 10 seconds. Pick up the buttons one at a time. Did you collect more buttons of one color than the other? Why? How can a variation such as color affect the process of natural selection?

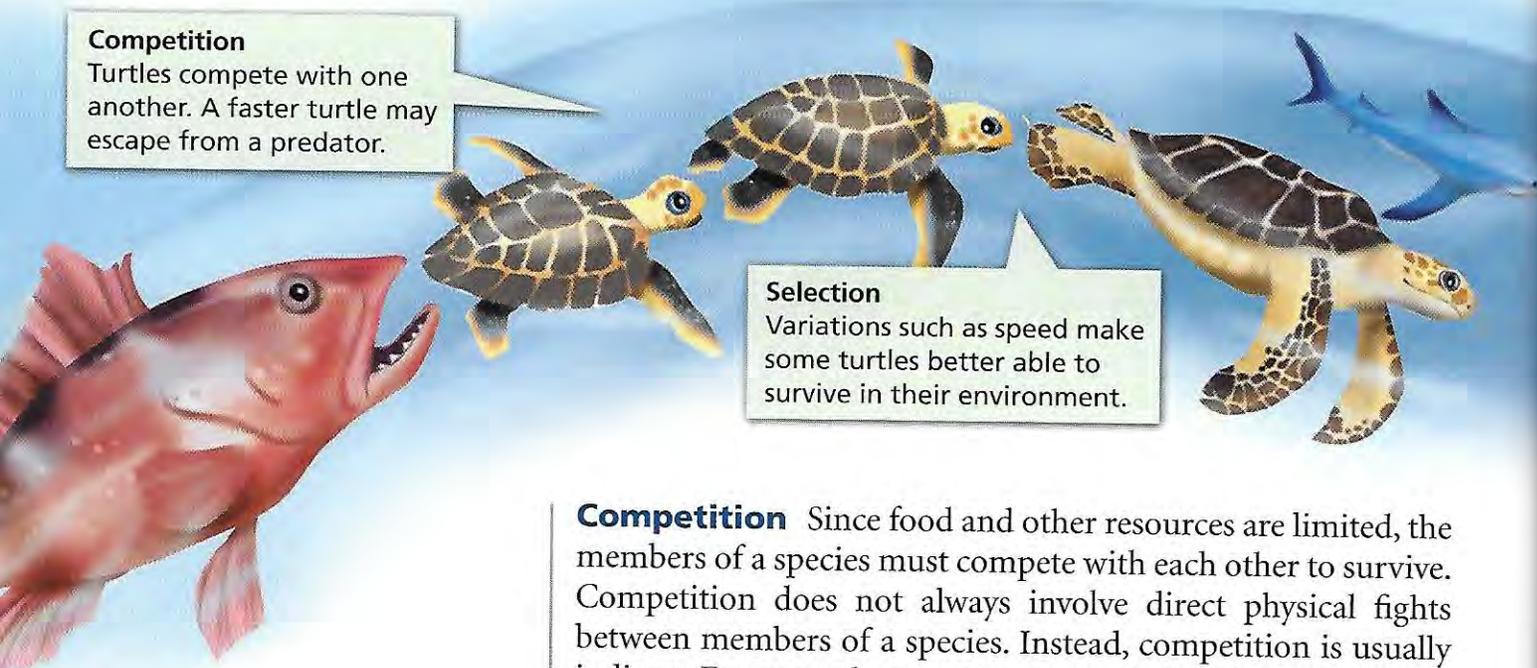


FIGURE 6

Competition and Selection

Variations among turtles make some of them better able to survive. Turtles that survive to become adults will be able to reproduce.

Applying Concepts *What are some variations that sea turtles might exhibit?*

Competition Since food and other resources are limited, the members of a species must compete with each other to survive. Competition does not always involve direct physical fights between members of a species. Instead, competition is usually indirect. For example, many insects do not find enough to eat. Others are caught by predators. Only a few insects will survive.

Selection Darwin observed that some variations make individuals better adapted to their environment. Those individuals are more likely to survive and reproduce. Their offspring may inherit the helpful characteristic. The offspring, in turn, will be more likely to survive and reproduce, and thus pass on the characteristic to their offspring. After many generations, more members of the species will have the helpful characteristic.

In effect, the environment has “selected” organisms with helpful traits to become parents of the next generation. **Darwin proposed that, over a long time, natural selection can lead to change. Helpful variations may gradually accumulate in a species, while unfavorable ones may disappear.**

Environmental Change A change in the environment can affect an organism’s ability to survive. The environmental change can therefore lead to selection. For example, monkey flowers are a type of plant. Most monkey flowers cannot grow in soil that has a high concentration of copper. However, because of genetic variation, some varieties of monkey flower now grow near copper mines, in spite of the copper in the soil.

Here is how natural selection might have resulted in monkey flowers that can grow in copper-contaminated soil. When the soil around a mine first became contaminated, a small number of monkey-flower plants may have been able to survive in the high level of copper. These plants grew and reproduced. After many generations, most of the seeds that sprouted in the soil produced monkey flowers that could withstand the copper.

Go Online



For: Links on Charles Darwin
 Visit: www.SciLinks.org
 Web Code: scn-0351



Survival and Reproduction
Only a few turtles survive long enough to reproduce. The offspring may inherit the favorable traits of the parents.

Genes and Natural Selection Without variations, all the members of a species would have the same traits. Natural selection would not occur because all individuals would have an equal chance of surviving and reproducing. But where do variations come from? How are they passed on from parents to offspring?

Darwin could not explain what caused variations or how they were passed on. As scientists later learned, variations can result from mutation and the shuffling of alleles during meiosis. Genes are passed from parents to their offspring. Because of this, only traits that are inherited, or controlled by genes, can be acted upon by natural selection.

Section 1 Assessment

Target Reading Skill

Relating Cause and Effect Work with a partner to check the information in your graphic organizer.

Reviewing Key Concepts

- Listing** List three general kinds of observations that Darwin made during the voyage of the *Beagle*.
 - Comparing and Contrasting** Contrast Galápagos iguanas to South American iguanas.
 - Applying Concepts** What is an adaptation? Explain how the claws of the Galápagos and South American iguanas are adaptations.
- Reviewing** How did Darwin explain why Galápagos species had different adaptations than similar South American species?
 - Developing Hypotheses** How does selective breeding support Darwin's hypothesis?

- Defining** What is variation? What is natural selection?
 - Relating Cause and Effect** How do variation and natural selection work together to help cause evolution?
 - Applying Concepts** Suppose the climate in an area becomes much drier than it was before. What kinds of variations in the area's plants might be acted on by natural selection?

Writing in Science

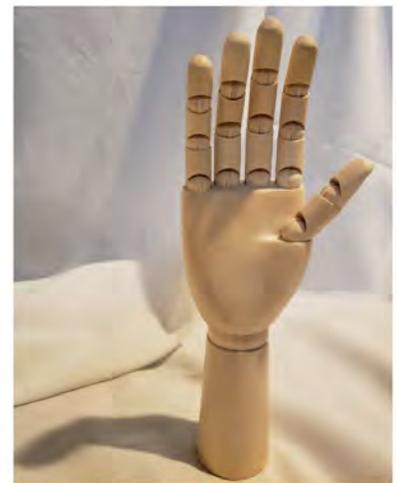
Interview You are a nineteenth-century reporter interviewing Charles Darwin about his theory of evolution. Write three questions you would ask him. Then write answers that Darwin might have given.

ART INSTRUCTIONS

Read me: Over the last few weeks we have been working on the human form and how to draw it proportionally. First, we went over how to draw a head and lay out a face. Then, we learned how to set up a stick skeleton and draw out the body. This week, I want you to try and draw this open palm hand. Remember, if you have internet access there are videos on the school's website to help you through this sketch.



Step 1: Start by drawing in the simple shapes. To make the palm, start with a rectangle, then draw a U shape from one bottom corner to the other. To draw the fingers and thumb, make joint circles and bone lines. This should look like the example below, but also remind you of how you laid out the people you drew the last few weeks. If your sketch resembles the image below, move on to the next step.



Step 2: Start adding thickness to your fingers, thumb and wrist. For your fingers, just draw a large oval from joint to joint. For the wrist, draw a large half circle under your palm shape then a cylinder below that. If your drawing looks similar to the sketch below, you can move to the next step.



Step 3: For this step, start to add details and shading , and erase any guide lines you no longer need. If your hand sketch looks like the example below you should be good to send it back on the bus. If you want to keep your drawing you can turn it in instead by taking a photo of it and emailing it to me at Zachman@parnassusprep.com. Just make sure your full name is in the subject line of the email.

